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Notes to the Financial Statements: Current State and Improvement

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Abstract

Background: Prior studies have revealed a disclosure problem in financial statements, primarily in narrative reports. Three main problem areas have been identified: insufficient relevant information, too much irrelevant information, and low-level communication. Micro and small entities face the most difficulties. **Objectives:** The main objective of this research is to propose a solution to existing disclosure problems to contribute towards improving the quality of financial reporting of smaller entities. **Methods/Approach:** To improve the reporting model for smaller entities, a survey has been conducted using a structured questionnaire on a sample of non-financial entities registered in Croatia. Based on results interpretations, standardized notes have been proposed. **Results:** 167 respondents have shared their thoughts about current disclosure issues and possible improvements, showing their awareness of disclosure problems and willingness for change. Given their opinions, the proposal has been made. **Conclusions:** The main contribution of the paper is the creation of a proposal for standardized, integrated, and digitalized notes to the financial statements based on the principle of materiality, primarily addressed to micro but also small entities from the non-financial sector. The paper extends previous proposals which did not focus on their structure and digitalization.

Keywords: disclosure problems; financial statements; notes; micro and small entities; standardization; integration; digitalization; the principle of materiality
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Introduction

Financial statements could be defined as partially standardized reports showing a picture of an entity's financial position and business performance. While a balance sheet and income statement commonly have prescribed structure according to the national regulations, notes to the financial statements are usually a non-standardized report. The notes should comprise a summary of significant accounting policies as well as material (significant) information in addition to the positions (items) presented in other financial statements (Commission Regulation (EC), 2008; Financial Reporting Standards Board, 2021; International Accounting Standards Board, 2018). Each accounting standard contains a part of disclosure requirements, which indicates additional information that should be disclosed in the notes if such information is material and not disclosed in other financial statements. According to Garvey et al. (2021), the conceptual framework of International Financial Reporting Standards (IFRS) is based on principles, not on strict rules, meaning that preparers should consider them by making professional judgments to ensure accurate and fair financial statements, but some approach them as if they were applying a rules-based approach. IRFS and national standards of the European Union member states are principle-based standards meaning that financial statement preparers should use the principle of materiality, among others, when disclosing information. The problem of readability and understandability and the choice between disclosure in the notes and disclosure elsewhere was noticed by Parker (1996), who explored the harmonization of the notes in the UK and France. The current practice shows several problems in financial reporting regarding disclosures in the notes. The International Accounting Standards Board (IASB) recognized the problems in financial reporting on the international level back in 2011 when initiated the project Conceptual Framework, which was intended, *inter alia*, to define and clarify the concept of materiality (International Accounting Standards Board, 2013).

In early 2013, the IASB organized the Discussion Forum on financial reporting disclosure attended by various financial statement users, preparers, standard-setters, auditors, regulators, and representatives from prominent organizations already undertaking work in this area. These organizations were The European Financial Reporting Advisory Group, European Securities Markets Authority, US Financial Accounting Standards Board, International Auditing and Assurance Standards Board, The Institute of Chartered Accountants of Scotland, New Zealand Institute of Chartered Accountants (International Accounting Standards Board, 2013). Before the Forum itself, the IASB launched a study on published information in financial reports, which was aimed at international preparers, investors, analysts, and other primary users, to gain an insight into the disclosure problems the real stakeholders face. The main survey results were as follows: (i) over 80% of the respondents emphasised that there is a problem in disclosed information; (ii) over 40% of the respondents agreed and strongly agreed that there is not enough relevant information; (iii) over 60% of the respondents agreed and strongly agreed that there is too much irrelevant information; and (iv) over 50% of the respondents agreed and strongly agreed that there is poor communication (International Accounting Standards Board, 2013).

Since the disclosure problems have already evolved, the IASB realized that a comprehensive project must be launched. In that context, the IASB launched the main project Disclosure Initiative as a part of the general initiative Better Communication in Financial Reporting. Even though the IFRSs are mainly used by larger entities and the IABS's research is mainly focused on the annual report, it is justified to rely on their research as both reports (annual report and notes) are narrative and small entities certainly do not pay more attention to reporting than large ones (according to which it can be concluded that the same relations apply to notes as to the annual report, e.g., when it comes to quality of reporting).

Unfortunately, even though the IASB finished six out of twelve projects from the Better Communication in Financial Reporting initiative in eight years, the desired result has not been achieved. The disclosure problem is still present and poses a challenge to the accounting standard setters at the national and international levels (Elkins et al., 2018; Hellman et al., 2018; Abad et al., 2020).

Gordon (2019) also points out that one of the accounting topics that can contribute is "research to inform standard-setters". This is precisely the aim of this paper – to propose a solution for the existing disclosure problem to improve the quality of financial reporting. In that context, while the IASB deals with reporting of larger entities applying the IFRSs, the target group of this research refers to smaller entities, i.e., micro and small ones. These two categories account for approximately 95% to 99% of all entities in most economies. The European Parliament and the Council issued the Directive 2013/34/EU, which simplifies the financial reporting of micro-entities. Those simplifications should be transposed into national legislation to be applicable for micro-entities. According to the research taken before the transposition of the Directive 2013/34/EU into the Croatian Accounting act, more than 80% of 535 respondents (subscribers and business partners of Croatian Association of Accountants and Financial Experts) consider that simplification of accounting regulation for micro-entities is necessary (Ptiček et al., 2015).

The research aims to investigate the attitudes of the entrepreneurs, accountants, and managers on simplifying financial reporting for micro-entities because micro-entities had the same obligation regarding financial reporting as small entities, even after transposing some provisions from the Directive. The research was carried out using survey research on a sample of all businesses from the non-financial sector in Croatia. The author uses random sampling with estimation reliability of 99% and a relative estimation error of 2.5%. Based on research results, a proposal for standardization of notes to the financial statements for smaller entities has been structured.

The paper's main contribution lies in the proposed standardized and integrated notes to the financial statements primarily addressed to micro-entities from the non-financial sector. The standardized notes overcome the proposals for simplification made by Ptiček et al. (2015), Žager et al. (2015), and Pavić et al. (2017). Specifically, standardized notes should have interactive content that would lead to each note. The first part of notes should include general information of an entity, which should be linked to the websites (e.g., the official entity website, the entity site at the court register, applicable laws referred to in the notes, applicable accounting standards) and a brief description of the main business activities. To avoid repetitive disclosures of accounting policies and estimates, in the first part of notes and later with financial data, they should be published only once, along with financial data. Accordingly, the second part should summarise all significant financial statements items, correlating accounting policies, estimates, and analytical representations. Using tables, charts, and figures would significantly improve the graphic design of the notes themselves. Highlighting text, e.g., different colors, would make it easier to navigate and search for critical information. All of that should be automated either using Excel sheets or a specialized application.

The final part would comprise additional clarifications, if applicable. Each entity would have an option to choose which case is applicable for them, and each chosen case would be disclosed in the notes. By choosing a case, one would have to write the corresponding amount.

The structure of this paper is as follows. From the respondents ' standpoint, the central part refers to the research regarding the disclosure problems and possible ways of simplifying notes to the financial statements. After the introduction comes the review of the disclosure problems recognized in practice. After the detailed review of disclosure problems, the causes of disclosure problems are discussed briefly. A final proposal before the overall conclusion presents the preparation of standardized and integrated notes to the financial statements primarily intended for micro-entities.

Disclosure in financial reports

There is no doubt that there is a disclosure problem in financial reporting internationally. More than 80% of the respondents to the IABS survey (International Accounting Standards Board, 2013) prove that, as well as the whole set of projects that have been taken by the IASB and eminent international accounting and finance professional organizations under the main initiative Better Communication in Financial Reporting. It is necessary to elaborate on the disclosure problem in detail to find a solution to adequate problem-solving. According to Damodaran (2006), an information disclosure problem "can be created either by the absence of relevant information or the presence of extraneous information".

Disclosure of irrelevant information in financial reports

Irrelevant information is information that does not give new knowledge to its users. When it comes to financial reporting, such information may be the one that is already disclosed in another financial statement, repetitive information in the same statement, or one which is generally known among financial statement users. Neither the repetitive nor generally known information has value for users. Moreover, it is difficult to find relevant information among a significant amount of irrelevant information published. "Management needs to avoid excessive disclosures which could impair competitiveness" (Fung, 2014). According to the IASB survey, over 60% of respondents, among which the most significant share relates to preparers of financial statements, agreed and strongly agreed that there is too much irrelevant information in the financial reports (International Accounting Standards Board, 2013). One might say that a good thing in such a situation is that those who prepare these reports are aware of the existing problem, and the worst scenario would be if they were not aware of the problem.

Disclosure of irrelevant information leads to information overload. Frequent amendments to legal regulations and accounting standards impose many requirements on business entities. To meet all the requirements, entities disclose more and more information in their reports. For instance, the length of the annual report in the United Kingdom increased from 26 pages in 1965 to 75 pages in 2004 (Beattie et al., 2008), while Deloitte UK (2017) reported that the average length in 2016 was 155 pages which makes an increase by six times in 50 years period. However, it is questionable whether the quality increased proportionally. In this regard, Ong et al. (2020) conclude that "policymakers or regulators may consider implementing minimum requirements to reduce the information gap between informed and uninformed investors". The exact parallel could be drawn regarding the notes to the financial statements even though they stand as separate financial statement that is obligatory for all entities regardless of their size. At the same time, the annual report is not prescribed for smaller entities to be prepared.

"Problems in searching and locating information are exacerbated to the extent that individual users have only limited time to absorb information for any given company" (Barker et al., 2013). In addition, "more disclosures in annual reports may increase the cost of preparing the annual report as well as confuse the investors and eventually affect their investment decision" (Ong et al., 2020).

Lack of relevant information in financial reports

Relevant information is information that has value for its users. Such information is accurate, precise, non-bias, timely, reliable, faithfully presented, comparable, and material (significant). When it comes to accounting standards, they do not directly state which information has to be presented in the notes but that the elementary qualitative characteristics that should be considered are relevance and faithful representation, which means that material (significant) information should be described in more detail. The Conceptual Framework for Financial Reporting (IFRS Foundation, 2021) defines material information as information which "omitting, misstating or obscuring could reasonably be expected to influence decisions that the primary users of general purpose financial reports make based on those reports, which provide financial information about a specific reporting entity". Proper use of the materiality principle requires professional accounting judgments when evaluating which information should be presented in the notes. The IASB survey results point out that there is not enough relevant information disclosed in financial reports (International Accounting Standards Board, 2013). Information overload is more often positively correlated with irrelevant disclosures than relevant ones. In line with that, more comprehensive reports do not always present more relevant information but more often irrelevant and immaterial information. Accordingly, increasing reports length also increased the share of irrelevant information, while the relevant information is hidden or not disclosed.

Many studies tested a relationship between disclosure quality and various entities' characteristics. Most of them positively correlated with disclosure quality and entity size (Mošnja-Škare et al., 2013; Galant et al., 2017; Khan et al., 2018). It has to be emphasized that studies regarding the measurement of disclosure quality differ from various aspects; measurement methods, independent variables, list of items comprising a disclosure index, statistical methods, etc. This does not necessarily decrease their importance and contribution, but researchers must be careful when interpreting their results. In that context, Mošnja-Škare et al. (2013) evaluated the quality of notes to the financial statements upon revenues and expenditure of small and medium-sized entities by assigning grades from 1 to 5. The results showed that 53.1% of small entities have low-quality notes instead of only 9.8% of medium-sized entities.

It is well known that only financial reporting is not sufficient nowadays, but should be enriched by non-financial information that may be disclosed in the notes, annual report, management report, or separate non-financial report. Galant et al. (2017) investigated whether the entity size, among other variables, impacts the voluntary preparation of the non-financial report. As expected, the hypothesis was accepted. Research on non-mandatory disclosure of accounting ratios was taken by Haddad et al. (2020) and proved that the entity size is positively correlated with the disclosure of the ratios. Analyzing the overall sample, only 35% of entities disclosed at least one accounting ratio. Even though neither the non-financial information nor accounting ratios are mandatory to disclose according to the accounting standards, they may be important for stakeholders if they are relevant.

Poor communication in financial reports

Financial and non-financial information should be transparently disclosed in the entity's reports since these reports are the primary communication tool used by stakeholders. Unfortunately, it is not uncommon that communication in these reports is poor and at a low level. Based on received responses from the IASB survey, "in terms of poor communication, many respondents cited internal inconsistency and lack of links and signposting throughout the entire annual report as key problems. For example, segment disclosures are not always consistent with information provided elsewhere" (International Accounting Standards Board, 2013).

When it comes to the notes to financial statements or annual reports, these reports are mainly prepared manually, which causes mistakes (e.g., outdated data, information from the previous year, different values among reports). These mistakes are seen as inconsistencies by users and cause a waste of their time to find accurate information. Besides inconsistencies between financial statements, there are also notes that miss filling a cell in the template prepared for more entities or forget to change some legal information regarding the entity. Nowadays, annual reports are pretty structured compared with those from several years ago, but notes to the financial statements are still unstructured. The reason lies in the entity that prepares them (large ones are aware of the importance of transparent and relevant reporting, while smaller ones usually do not care about reporting as they should). The unstructured notes do not contain the content of the notes, links, or signposting, which causes difficulties in navigating the report itself. Thus, some information is disclosed twice, while others are not disclosed at all. The most common situation is that the notes do not provide information other than those already disclosed in the balance sheet and income statement for micro and small entities. Such notes are prepared only to meet legal obligations, and they are not relevant to anyone, which is the basis of the need for their standardization.

Source of the existing disclosure problems

To find appropriate solutions to improve the disclosure of information in the financial statements, it is necessary to identify the reasons for the disclosure problem. The general reasons for disclosure problems are a lack of time, financial resources, and human resources (i.e., professional staff). Furthermore, Damodaran (2006) emphasizes that lax regulatory requirements in many emerging markets cause incomplete financial statements and, thus, non-disclosure of relevant information. Contrary to that, too much regulation can cause information overload, increasing costs related to financial reporting. According to Farvaque et al. (2011), disclosure rules should differ for companies that differ in size since inappropriate disclosure rules decrease fair competition. Depending on the size of the entity, these reasons have different weights. Micro and small entities lack the most in terms of financial resources and professional staff. Accounting services are usually outsourced and entrusted to external accountants. Micro and small entities usually do not value accounting services sufficiently because, in most cases, they perceive only costs for accounting services since they do not understand accounting and cannot, and even do not want, use its outputs in terms of analysis and planning future operations and business. On the other hand, external accountants struggle with time as they have to have more clients due to the low prices of accounting services, leading to a lack of time to devote to an individual approach to compiling their clients' financial statements. In addition, communication between the external accountant and the entity is necessary for financial statements, particularly the notes to be prepared following the disclosure requirements, based on the principle of materiality.

Although the structure of notes in the Republic of Croatia is not prescribed, continuous development and improvement of technology led to the development of the accounting information systems that automatically prepare notes to the financial statements based on data from other financial statements. In this way, external accountants are entirely relieved of the burden of compiling the notes. Almost by one click, can prepare the notes and other primary financial statements that structure is prescribed. A formal obligation to compile notes to the financial statements is met, but, in such cases, all entities whose notes are generated from the same accounting information system have almost the same disclosures in their notes, which differ only in quantitative data. Such notes contain more irrelevant than relevant data and information, and their purpose, to disclose entity-specific information, is completely lost, notwithstanding the formal obligation is met.

Summarising the above, it can be concluded that, generally, smaller entities prepare financial statements mainly because they require regulatory authorities and do not use professional judgments related to the principle of materiality. Farvaque et al. (2011) agree with this and add that mandatory disclosure does not necessarily require disclosing useful information to third parties. The main reason for too much irrelevant information, not enough relevant information, and poor communication through narrative financial statements is the non-application of the principle of materiality. Non-using professional judgment leads to non-appropriate disclosures.

Methodology

Data

To improve published information in the notes to financial statements, stakeholders' opinion is considered significant input. Research on applying the materiality principle when compiling annual financial statements on a sample of Croatian entities operating in the non-financial sector was conducted. A population consisted of all entities from the non-financial sector registered in Croatia in 2017 who submitted the annual financial statements for the financial year of 2017, a total of 120,081 entities. The research sample was calculated with an estimation reliability of 99% and a relative estimation error of 2.5%. The final sample comprised 5,942 randomly chosen entities and was calculated assuming that each category (micro, small, medium-sized, and large) makes up one separate population to get a more significant sample. The initial sample size for each category of entities was calculated using the formula 1. In addition, a correction of the initial sample size was performed, after which the final sample size of each of the four categories of entities was obtained.

$$n_i = \frac{z^2 \cdot p \cdot (1-p)}{c^2} \tag{1}$$

$$n_k = \frac{n_i}{1 + \frac{n_i - 1}{N}} \tag{2}$$

where: n_i = initial sample size, z = reliability coefficient with a given confidence level (2.58 for a confidence level of 99%), p · (1 - p) = population variance (if population variance is unknown, p = 0.5), c = estimation error expressed relatively, n_k = final sample size after initial size correction performed for final populations, N = population size.

The data were collected from May 2019 to August 2019 since the research was conducted for a doctoral dissertation (Rep, 2020). The primary questionnaire was submitted by 699 respondents (entrepreneurs, accountants, and managers) (return rate of 11.76%). In contrast, the second one, which is analyzed in this paper, submitted

167 respondents (return rate of 23.89% based on the respondents who filled the first questionnaire). 25.15% of the respondents come from micro-entities, 40.72% from small entities, and others from medium-sized and large entities. Since the categorization of micro-entities was introduced in the Croatian Accounting act in 2015, a part of small entities may belong to the group of micro-entities according to the provisions of the Accounting Act. Even though the focus is on improving the notes of the micro and small entities, responses of medium-sized and large entities were considered and analyzed to gain insight into their opinion on the standardization of notes. 53.89% of respondents perform the function of an accountant, and another 12.58% perform other functions in the entity in addition to accounting. The high share of accountants who completed the questionnaire shows their interest in changing the current financial reporting model, emphasizing the notes to the financial statements. The largest share of respondents, 55.09%, have more than 15 years of experience in accounting.

Research Instrument

The research was conducted using a survey method by sending a questionnaire to the entities. In addition to the primary questionnaire, a second one was available for filling after submitting the primary questionnaire. The questionnaire was divided into three parts. The first part referred to the respondents' demographic characteristics, and the second comprised the assertions related to the current model of the notes. The last one comprised the assertions related to improving the current model of the notes. The received questionnaires were analyzed to determine the current state and possible changes in the notes. Two questions were posed to the research participants: (i) attitudes about the existing model of notes to the financial statements; (ii) selection of the possible improvement of the existing model of compiling notes to the financial statements.

Results

Attitudes about the existing model

The respondents were asked to express their opinions on the five Likert scale. According to Table 1, it can be noticed that the respondents are aware that notes to the financial statements contain irrelevant information and that they tend to change the way the notes are compiled. 74.25% of the respondents completely or mostly agree with the assertion that information required by accounting standards is published in the notes regardless of its materiality (significance) (E1). Accordingly, managers do not assess the materiality of information following all principles for conducting professional accounting judgments. This leads to the conclusion that managers support disclosing most of the information under accounting standards' disclosure requirements. 70.66% of the respondents completely or mostly agree that changes in accounting estimates are often not disclosed in the notes and comparative data before these changes (E2).

On the other hand, accounting standards require disclosures in the notes if there is a change in accounting policies and estimates since such disclosures are relevant information for users. 74.85% of the respondents completely or mostly agree with the assertion that notes often do not contain additional data but only those that are already available in other financial statements (E3). Repetition of data and information presented in other financial statements leads to irrelevant disclosures and information overload without more detailed and analytical data. 68.26% of the respondents completely or mostly agree that the notes contain definitions of basic accounting categories (E4). Definitions of accounting categories are written in accounting standards and should be known to stakeholders who read the financial statements. The purpose of notes is not to define accounting categories, and such definitions are irrelevant information in the notes. Finally, 80.84% of the respondents completely or mostly agree that the standardization of notes in a table would increase the relevance of published information (E5). This leads to the conclusion that the standardization of notes is a preferable way of simplifying the financial reporting model for primarily micro and small entities, which should enhance the quality and comparability of notes to the financial statements between these entities and between reporting periods of each entity. Cronbach's alpha was calculated to evaluate the reliability of the research items E1 to E5 and their consistency. Its value of 0,913 confirms that items in the research instrument are consistent and reliable. In other words, it is justifiable to use the average value of the research items (E_sum).

Table 1
Descriptive statistics at the attitudes about the existing model of notes to the financial statements

	Mean	St. Dev.	Cronbach's alpha
E1. Nowadays, information required by accounting standards is published in the notes regardless of its materiality (significance).	3,74	0,96	0,913
E2. Changes in accounting estimates are often not disclosed in the notes and comparative data before these changes.	3,75	0,93	
E3. Notes often do not contain additional data but only those already available in other financial statements.	3,89	1,03	
E4. Notes contain definitions of basic accounting categories, which is not their purpose.	3,86	1,09	
E5. Standardization of notes in the form of a table would increase the relevance of published information.	4,08	1,15	
E_sum. All statements together (average E1-E5)	3,86	0,89	

Source: According to Rep, 2020, p. 282

Table 2 compares the various groups of companies and respondents according to their characteristics. For example, the average value of the variable E_sum for the not accountants respondents is 3.7379. In contrast, the accountants overall gave higher grades to responses E1-E5, which resulted in the higher value of the variable E_sum. Statistically, significant differences emerge for the following variables: owner, micro size of the company, and the respondent with experience in accounting over 15 years.

Table 2
T-test analysis of the summary variable of the attitudes about the existing model of notes to the financial statements (E_sum) and the characteristics of the company and the respondent

Variable	No	Yes	T-test	P-value
Accountant	3.7379	3.9321	-1.342	0.182
Owner	3.9607	3.6044	2.318	0.022**
Manager	3.8679	3.8590	0.062	0.951
Micro	3.9545	3.6136	2.199	0.029**
Small	3.8059	3.9545	-1.094	0.294
Medium	3.8333	3.9610	-0.794	0.428
Large	3.8662	3.8500	0.0690	0.945
Experience	3.2267	3.9276	-2.969	0.003

*Note: ** Statistically significant at 5%; *** 1%*
Source: Author's work

Possible improvement of the existing model

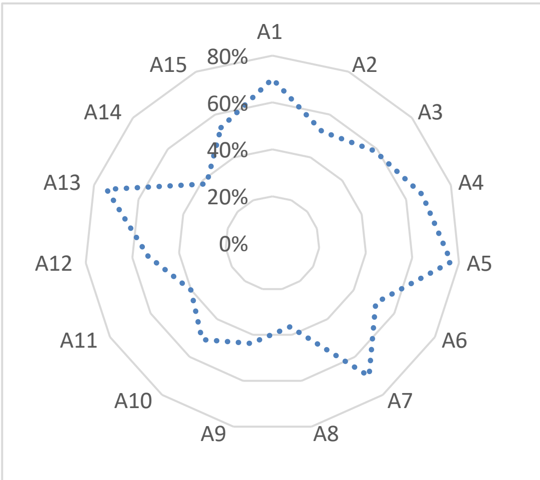
Respondents were asked to select assertions on improving the existing model of compiling notes to the financial statements to which they agree. Percentages of their responses by assertions are given in table 3, and the full text of assertions is provided in Appendix 1.

Table 3
Percentage of respondents who selected the assertions on the improvement of the existing model of compiling notes to the financial statements

Assertions	% of respondents
A1	70.1%
A2	52.1%
A3	58.7%
A4	67.1%
A5	76.6%
A6	50.9%
A7	70.1%
A8	36.5%
A9	43.7%
A10	50.9%
A11	40.1%
A12	53.3%
A13	74.3%
A14	37.7%
A15	53.9%

Source: According to Rep, 2020, pp. 280-281

Figure 1
Comparison of the respondents who selected the assertions on the improvement of the existing model of compiling notes to the financial statements



Less than 50% of the respondents agreed with only four assertions. Respondents are unwilling to disclose information about non-current assets whose bookkeeping value is zero, even though the entity still uses these assets. They primarily do not support the disclosure of additional information in the notes or the inclusion of graphs, tables, or charts. Accordingly, it can be concluded that they do not prefer disclosure in addition to the standards' minimum requests. Thus, 43.71% of the respondents think that significant inventory differences should not be disclosed. Since these differences are not presented directly in other reports, disclosing them in the notes is essential. 50.9% of the respondents think that the accounting policies and estimates do not need to be used in entities that apply legal regulations.

Contrary to that, the application of tax regulation does not exclude accounting judgments or, in other words, accounting policies and estimates prescribed by accounting standards. Accounting and tax treatment may differ, but most entities apply provisions prescribed by tax law, and by doing so, do not make accurate estimates covered by accounting standards. That makes business operations and decisions easier, but such financial statements do not present the actual situation of the business.

Agreement with the remaining assertions by most respondents supports awareness of the need to change the financial reporting model, with an emphasis on the notes. Between 50% and 60% of the respondents agree with four assertions. They agree that it is necessary to explain the positions, such as other business income, other business expenses, etc., if such amounts are significant. Respondents know that it is unnecessary to define accounting categories in the notes since they are already defined in accounting standards. Such disclosures have a significant share in irrelevant information disclosed nowadays. Surprisingly, only 53.9% of them support the further development of digital accounting data processing and financial reporting processes. The cause for such a result could be that further digitalization could make it more difficult and require additional education to process data and create financial reports.

Contrary to that, systematization, integration, and standardization of the notes should simplify the reporting process. To support that initiative, 58.68% of the respondents agree that there is a need to integrate notes with other financial statements in accounting information systems with the possibility of adding specific information for each entity, while 52.1% support integration of all the financial statements in an integrated report to avoid disclosure of the same information in different statements. It is not enough that the notes contain only information already published in other financial statements since accounting policies and estimates should be specific for each entity. That could be reached by standardizing the notes that will disclose only essential and relevant information for each entity. So, the control mechanisms must be included in the compilation of the notes, and that is not the case in existing automated notes.

It does not surprise that 67.07% of the respondents think that the notes should be exempted for micro-entities since their preparation costs exceed their benefits. Their standardization and free-of-charge usage could reverse that relation. 70.06% of the respondents welcome the standardization by confirming that there is a need to define standardized notes for micro and small entities in cooperation with banks, financial and other institutions to relieve these entities of administrative costs and to make the annual financial statements compatible with those requested by banks and other institutions. The same share of the respondents agrees that changes in accounting policies and/or estimates should be disclosed in the notes. Today, no accounting software automatically discloses such changes.

74.25% of the respondents know that disclosing items that the entity does not own is irrelevant since it is readable from other statements. Such notes are massive today and have the largest share in irrelevant disclosures of entities that use existing software for notes compilation. Finally, it is encouraging that the largest share of the respondents who agreed by given assertions think that the principle of materiality should be used in financial reporting to make notes of better quality, rather than disclosing everything stated in accounting standards.

Link analysis of the experience in accounting and the proposed assertions

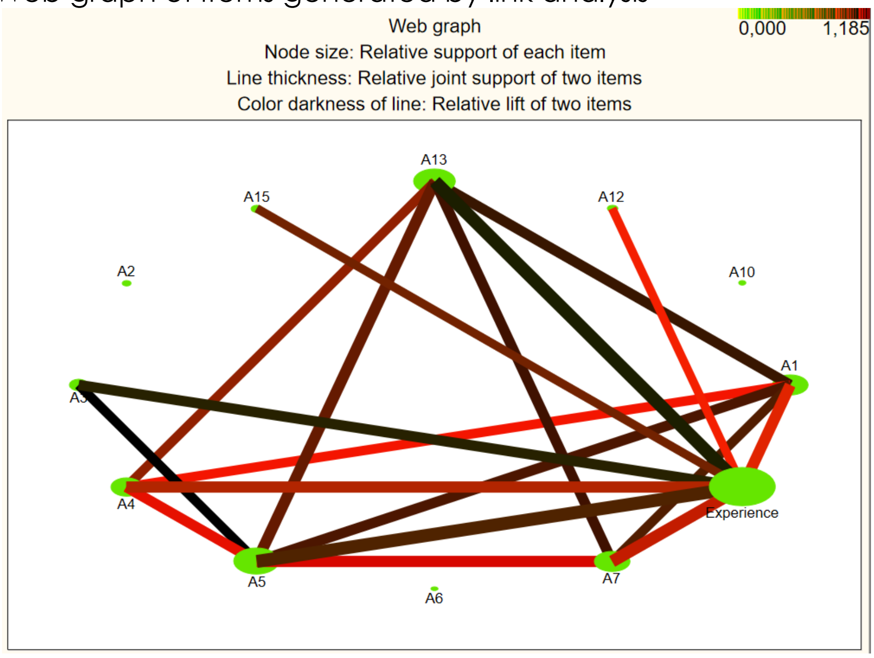
Link analysis has been conducted to examine the relationship between the proposed assertions and the experience in accounting.

The association rules have been developed using the selected metrics (minimum support value of 0.5, minimum confidence value of 0.5, and the maximum number of items in an item set of 3) (according to Pejić Bach et al., 2020).

Figure 2 presents a Web graph of items generated by link analysis. "Node size indicates relative support for each item, line thickness relative joint support of two items, and color darkness of line a relative lift of two items" (Pejić Bach et al., 2020). It can be noticed that the most critical nodes are related to the experience and the following assertions: A5, A13, A1, A7, A4, and A3. The most vital joint support is for the same claims, which are the most important. As anticipated, the strength of the relationship between the experience and A13 is presented by the darkest line.

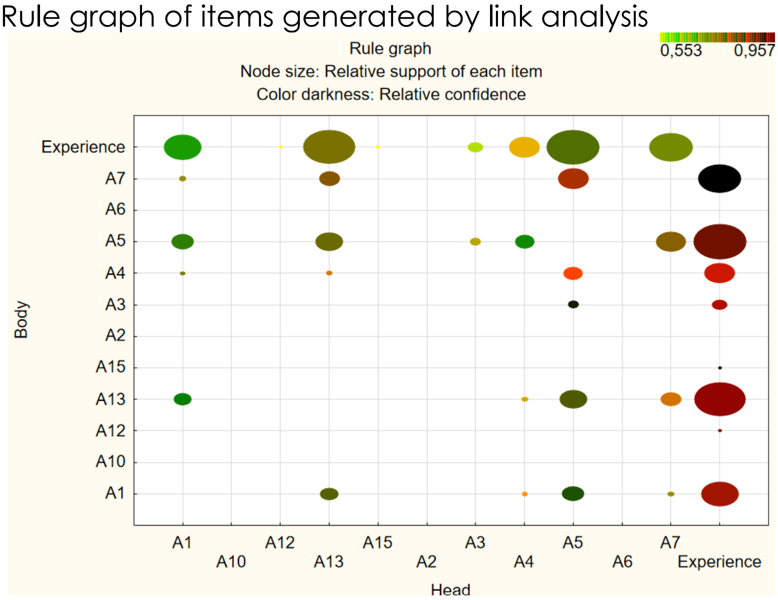
Figure 3 presents a rule graph of items generated by link analysis. "Node size presents relative support of each item, and colors darkness relative confidence" (Pejić Bach et al., 2020). The rule with the highest support is the relationship between the experience and assertion A5, while the relationship between the experience and assertion A7 stands for the highest relative confidence. It can be observed that the rules that contain the item experience are presented with big node sizes, while smaller node sizes exist between the assertions that have been observed as the most important based on the size of the nodes in Figure 2.

Figure 2
Web graph of items generated by link analysis



Source: Author's work, based on the internal data source

Figure 3
Rule graph of items generated by link analysis



Source: Author's work, based on the internal data source

Table 4 presents association rules with the item Experience in the Body. The first rule shows that 64.67% of all respondents have experience in accounting and agree with assertion A1 (that there is a need to define standardized notes for micro and small entities in cooperation with relevant institutions). On top of that, 71.05% of respondents experienced in accounting agree with assertion A1. The second role shows that 53.89% of all respondents have experience in accounting and agree with assertions A1 and A5 (that the principle of materiality should be used in financial reporting). Additionally, 59.21% of respondents experienced in accounting agree with these two assertions. The remaining roles follow the same pattern. Accordingly, it can be concluded that respondents with experience in accounting agree in a higher percentage with the essential assertions from Figure 2 compared to all respondents (those who have and those who have no experience in accounting). This means that accountants, managers, and owners who have experience in accounting recognize the importance of notes improvement in the form of standardization more than those who have no experience in accounting.

Table 4
Frequent association rules with the item Experience in the Body

Body	==>	Head	Support(%)	Confidence(%)	Lift
Experience	==>	A1	64,67	71,05	1,01
Experience	==>	A1, A5	53,89	59,21	1,02
Experience	==>	A1, A13	53,29	58,55	1,04
Experience	==>	A12	50,30	55,26	1,04
Experience	==>	A13	70,66	77,63	1,05
Experience	==>	A13, A7	55,09	60,53	1,05
Experience	==>	A13, A5	56,89	62,50	1,03
Experience	==>	A15	50,30	55,26	1,03
Experience	==>	A3	55,09	60,53	1,03
Experience	==>	A3, A5	50,30	55,26	1,04
Experience	==>	A4	61,68	67,76	1,01
Experience	==>	A4, A5	52,69	57,89	1,02
Experience	==>	A5	71,26	78,29	1,02
Experience	==>	A5, A7	58,68	64,47	1,05
Experience	==>	A7	67,07	73,68	1,05

Source: Author's work

Proposed structure of standardized notes

Control mechanisms should enable the disclosure of only relevant information in fully standardized, integrated, and digitalized notes. More than 70% of respondents agree that there is a need to define standardized notes for micro and small entities. Guidelines for notes standardization have been proposed to improve the financial reporting model of primarily micro and small entities. The proposed model follows Croatian Financial Reporting Standards (CFRS), emphasizing their (materiality) significance. Generally, the requirements are of reduced volume and are applicable for the financial year starting from January 1, 2021, or later. First notes according to the simplified disclosure requirements are expected in the first half of 2022. It is important to note that disclosure requirements of the CFRSs changed for micro and small entities from the conducted research. Even though the requirements are reduced, micro and small entities still have to disclose information which makes most problems up to date. In this regard, Damodaran (2006) thinks that firms should avoid unnecessary complexity and that new legislation or more accounting rules should not be ensured since they have unintended side consequences. Following this approach, standardized notes for micro and small entities should be automated, integrated with other financial statements (58.7% of respondents support integration), and free of charge (like other annual financial statements templates prescribed in Croatia).

When proposing a model, it is essential to determine the measurement of the information's significance. Thus, respondents showed awareness that the principle of materiality should be used in financial reporting. For example, it could be required that all information related to financial statement items that account for more than 10% of its parent category have to be disclosed and described in the notes. In this way, items that need to be further explained would be published in prescribed notes and present an individual case for each entity, which would avoid irrelevant disclosures. Such compilation of notes is possible if they are linked to the forms of already prescribed annual financial statements, i.e., the balance sheet and income statement. To relieve micro and small entities of administrative costs associated with compiling a set of financial statements, a practical proposal for standardizing notes to the financial statements is given below. The proposed structure of notes to the financial statements for primarily micro and small entities, based on the respondents' and author's views, are presented in Table 5.

Table 5
Proposed structure of standardized notes to the financial statements for primarily micro but also small entities

Notes to the financial statements of entity XY
Interactive content
General information of an entity with redirecting links incorporated in the text
Significant financial statements' items, correlating accounting policies and estimates, and their analytical representations (using tables, charts, and images where appropriate as well as different color text)
Additional clarifications referring to the CFRS's requirements
The decision on the distribution of profits or coverage of losses and the decision on the adoption of the annual financial statements

Source: Author's work

Standardized notes should have interactive content that would lead to each note. Using such content, users of financial statements would follow the notes more easily. The first part of the notes would include general information about an entity. Still, it would also be linked to the essential websites such as the official entity website, the entity site at the court register, applicable laws referred to in the notes, applicable accounting standards, etc. Such links would simplify readability and comparisons. The first part should also include a brief description of the main business activities once recorded activities change only in their change, not necessarily every year.

It is common to disclose significant accounting policies and estimates in the second part of notes. Such policies and estimates are often disclosed twice in the specific note to which the policy or estimate refers. To avoid such repetitive disclosure, which leads to information overload, it is considered that it would be more transparent to publish information regarding accounting policies and estimates, as well as their changes, along with financial data, in other words, in the notes related to essential items of the financial statements. It is supported by more than 70% of respondents who agree that changes in accounting policies and/or estimates should be disclosed, but not twice. In addition, they are aware that assets that the company does not own should not be presented in the notes (74.3%), meaning only relevant and significant items should be presented in detail (76.6%). Accordingly, the second part would summarise all significant financial statements, correlating accounting policies and estimates and their analytical representations. Using tables, charts, and figures would significantly improve the graphic design of the notes themselves, even though only 40% of respondents recognize their value. Highlighting text, e.g., different colors, would make navigating and searching for critical information easier. All of that would be automated using Excel sheets or a specialized application.

The final part would comprise additional clarifications, if applicable. Each entity would have an option to choose which case prescribed in CFRSs is applicable for them, and each chosen case would be disclosed in the notes. By choosing a case, one would have to write the corresponding amount. The cases refer, but are not limited, to financial liabilities, liabilities related to pensions and undertakings, advances and loans granted to management, long-term debts, entrepreneur's arrangements not included in the balance sheet, significant events that occurred after the balance sheet date, transactions with related parties. Even though the cases are extensive and complex, most micro-entities do not face such cases. Those who do face them should select a particular case and write its amount, including the possibility to describe each case in more detail. All the other requirements from the CFRSs should be disclosed in the second part of the notes where significant items from other financial statements are disclosed (e.g., all the required data about long-term assets such as purchase value, value adjustments, accumulated depreciation, carrying amount, etc.).

The decision on the distribution of profits or coverage of losses and the adoption of the annual financial statements would also be part of the third part of the notes. That would integrate the notes with these decisions and reduce the necessary attachments to the annual financial statements.

Conclusion

Micro and small entities make up the majority of every economy. To enable them to focus on their primary business, they have to be administratively relieved. One of the identified administrative burdens is compiling annual financial statements, particularly the notes to the financial statements, which compilation costs possibly overcome their benefits. The notes are unprescribed reports which should be of great importance for their users, but there is a problem with their relevance. International and national research (International Accounting Standards Board, 2013; Mošnja-Škare et al., 2013) showed too much irrelevant information, not enough relevant information, and that the communication is on a low level. The main reason why micro-entities compile the notes is to fulfill legal regulations. Unfortunately, such notes do not meet their purpose to give the users valuable information in addition to those presented in other financial statements. To make notes a valuable resource, the principle of materiality has to be applied. By standardizing the notes for micro and small entities, including the mechanisms of materiality principle, the notes could become a valuable statement and replace several other reports (e.g., for banks and other administrative requirements). This is in line with Hunady's et al.'s (2020) conclusion "that business investment in R&D is positively correlated with specific business performance indicators" since the notes' standardization requires R&D activities that could be derived on the national level and would impact all smaller entities. In addition, their standardization would simplify complex tasks, reduce litigation risk, and enhance professional legitimacy, which Madsen (2011) found to be positively and significantly correlated with standardization in accounting.

Conducted research showed that preparers and users of financial statements are aware of the existing disclosure problems and are willing to change notes compilation.

Since prescribing structured notes to the financial statements would refer to almost 99% of Croatian entities, it is necessary to include in this process representatives of the Croatian Financial Reporting Board, relevant professional accounting organizations operating in Croatia, representatives of the academic community in the field of accounting, and professional institutions who require specific information of micro and small entities (such as banks and other financial institutions, the Tax Administration, etc.) because only in this way all the information required from the entities could be included in the notes. Such notes could replace several reports and administratively and financially relieve entrepreneurs.

There is an awareness that the proposed model is not perfect and planned in full detail, but it is a good starting point that could be presented to authorities to boost their awareness and willingness for change. On the other hand, this study could be important for further research, both national and international. Further studies could consider including legal and professional representatives to examine their views regarding disclosure problems and their solving by introducing the structured and digitalized notes to the financial statements integrated with other reports.

References

1. Abad, C., Barone, E., Gullkvist, B. M., Hellman, N., Marques, A., Marton, J., Mason, S., Menezes Silva, R. L., Morais, A., Moya Gutierrez, S., Quagli, A., Vysotskaya, A. (2020), "On the 'Disclosure Initiative – Principles of Disclosure': The EAA Financial Reporting Standards Committee's View", Accounting in Europe, Vol. 17 No. 1, pp. 1-32.
2. Barker, R., Barone, E., Birt, J., Gaeremynck, A., Mcgeachin, A., Marton, J., Moldovan, R. (2013), "Response of the EAA FRSC to the EFRAG/ANC/FRC Discussion Paper: Towards a Disclosure Framework for the Notes", Accounting in Europe, Vol. 10 No. 1, pp. 1-26.
3. Beattie V., Dhanani, A., Jones, M. (2008), "Investigating presentational change in UK annual reports: a longitudinal perspective", Journal of Business Communication, Vol. 45 No. 2, pp. 181-222.
4. Commission Regulation (EC) (2008), No 1126/2008 of November 3 2008 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council, available at https://eur-lex.europa.eu/legal-content/HR/TXT/?uri=celex%3A32008R1126 (24 February 2021)
5. Damodaran, A. (2006), "The Value of Transparency and the Cost of Complexity", available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=886836 (22 February 2021)
6. Deloitte UK (2017), "Annual report insights 2017 – Surveying FTSE reporting", available at https://www.iasplus.com/en-gb/publications/global/surveys/annual-report-insights-2017 (24 February 2021)
7. Elkins, H., Entwistle, G. (2018), "A commentary on accounting standards and the disclosure problem: Exploring a way forward", Journal of International Accounting, Auditing and Taxation, Vol. 33 No. C, pp. 79-89.
8. European Parliament (2013), "Directive 2013/34/EU of the European Parliament and of the Council of June 26 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings", available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013L0034 (24 February 2021)
9. Farvaque, E., Refait-Alexandre, C., Saidane, D. (2011), "Corporate disclosure: A review of its (direct and indirect) benefits and costs", International Economics, Vol. 128, pp. 5-31.
10. Financial Reporting Standards Board (2021), "Odluka o objavljivanju Hrvatskih standarda financijskog izvještavanja" (Decision on disclosure of Croatian Financial Reporting Standards), Official Gazette No. 86/15, 105/20, 9/21.
11. Fung, B. (2014), "The Demand and Need for Transparency and Disclosure in Corporate Governance", Universal Journal of Management, Vol. 2 No. 2, pp. 72-80.
12. Galant, A., Černe, K. (2017), "Non-Financial Reporting in Croatia: Current Trends Analysis and Future Perspectives", Management, Vol. 12 No. 1, pp. 41-58.

13. Garvey, A. M., Parte, L., McNally, B., Gonzalo-Angulo, J. A. (2021), “True and Fair Override: Accounting Expert Opinions, Explanations from Behavioural Theories, and Discussions for Sustainability Accounting”, Sustainability, Vol. 13 No. 4, pp. 1-23.
14. Gordon, E. A. (2019), “Advances and opportunities in international accounting research”, Revista Contabilidade & Finanças, Vol. 30 No. 79, pp. 9-13.
15. Haddad, A. E., Baalbaki Shibly, F., Haddad, R. (2020), “Voluntary disclosure of accounting ratios and firm-specific characteristics: the case of GCC”, Journal of Financial Reporting and Accounting, Vol. 18 No. 2, pp. 301-324.
16. Hellman, N., Carenys, J., Gutierrez, S. M. (2018), “Introducing More IFRS Principles of Disclosure – Will the Poor Disclosers Improve?”, Accounting in Europe, Vol. 15 No. 2, pp. 242-321.
17. Hunady, J., Pisar, P., Durcekova, I. (2020), “R&D Investments in the European ICT Sector: Implications for Business Performance”, Business Systems Research, Vol. 11 No. 3, pp. 30-44.
18. IFRS Foundation (2021), “Conceptual Framework for Financial Reporting”, available at https://www.ifrs.org/issued-standards/list-of-standards/conceptual-framework.html/content/dam/ifrs/publications/html-standards/english/2021/issued/cf/#standard (19 July 2021)
19. International Accounting Standards Board (2013), “Discussion Forum–Financial Reporting Disclosure. Feedback Statement”, available at https://www.ifrs.org/-/media/project/disclosure-initative/feedback-statement-discussion-forum-financial-reporting-disclosure-may-2013.pdf (25 February 2021)
20. International Accounting Standards Board (2018), “Conceptual Framework for Financial Reporting”, available at https://www.ifrs.org/issued-standards/list-of-standards/conceptual-framework/ (25 February 2021)
21. Khan, E., Shafi, K., Khan, A. Q., Ali Shad, S. (2018), “Voluntary disclosures and firm specific variables; evidence from UK listed firm”, WALIA journal, Vol. 34 No. 1, pp. 6-10.
22. Madsen, P. E. (2011), “How Standardized Is Accounting?”, The Accounting Review, Vol. 86 No. 5, pp. 1679-1708.
23. Mošnja-Škare, L., Galant, A. (2013), “The Quality of Notes Relating SME Revenues and Expenditures Disclosures: Empirical Study of Croatian Financial Reporting Standards (CFRS) Implementation”, Economic Research-Ekonomska Istraživanja, Vol. special issue No. 1, pp. 343-368.
24. Ong, T. S., The, B. H., Seng, K. C., Ng, S. H. (2020), “Does Information Overload of Annual Reports Matter?”, International Journal of Financial Research, Vol. 11 No. 2, pp. 243-254.
25. Parker, R. (1996), “Harmonising the notes in the UK and France: a case study in de jure harmonisation”, European Accounting Review, Vol. 5 No. 2, pp. 317-337.
26. Pavić, I., Žager, K., Rep, A. (2017), “Significance of Notes to the Financial Statements in Business Decision Making”, in Tomé, E., Neumann, G., Knežević, B. (Eds.), Proceedings of the International Conference Theory and Applications in the Knowledge Economy – TAKE, Zagreb, Croatia, 12-14 July 2017, Eduardo Tomé, Lisbon, Portugal, pp. 28-41.
27. Pejić Bach, M., Dumičić, K., Žmuk, B., Ćurlin, T., Zoroja, J. (2020), "Data mining approach to internal fraud in a project-based organization," International Journal of Information Systems and Project Management, Vol. 8 No. 2, pp. 81-101.
28. Ptiček, N., Žager, K., Dečman, N. (2015), “Rezultati istraživanja o unapređenju računovodstvene regulative i računovodstvene profesije” (Research results about the improvement of accounting regulative and accounting profession), in Gulin, D. (Ed.) Zbornik radova 50. simpozija HZRIF "Uloga regulatora u razvoju gospodarstva Hrvatske", Hrvatska zajednica računovođa i financijskih djelatnika, Opatija, Croatia, pp. 33-48.
29. Rep. A. (2020), “Utjecaj promjena zahtjeva za objavljivanjem na unaprjeđenje modela financijskoga izvještavanja” (Impact of Disclosure Requirements Changes on the Improvement of Financial Reporting Model), Unpublished doctoral dissertation, University of Zagreb, Faculty of Economics & Business, Croatia.
30. Žager, K., Dečman, N. (2015), “Guidelines and Recommendations for Improving the Micro Entities Model of Financial Reporting”, Procedia Economics and Finance, Vol. 39, pp. 451-457.

Appendix 1 - Full text of assertions

A1 – There is a need to define standardized notes for micro and small entities in cooperation with banks, financial and other institutions to relieve these entities of administrative costs and make the annual financial statements compatible with those requested by banks and other institutions.
A2 – There is a need to integrate all the financial statements in an integrated report to avoid disclosing the same information in different statements.
A3 – There is a need to integrate notes with other financial statements in accounting information systems with the possibility of adding specific information for each entity since it is not enough that the notes contain only information already published in other financial statements, and accounting policies and estimates should be specific and not the same for all entities (typical case in entities whose accounting is outsourced to bookkeeping services).
A4 – There is a need to abolish the obligation of a compilation of notes to the financial statements for micro-entities, which is allowed by Directive 2013/34/EU as they generate more costs than benefits for those entities.
A5 – The principle of materiality should be used in financial reporting to make better quality notes, rather than disclosing everything stated in accounting standards.
A6 – Accounting policies and estimates do not need to be used since an entity applies legal regulations (e.g., depreciation methods and rates).
A7 – If there is a change in accounting policies and/or estimates, these changes should be disclosed in the notes.
A8 – Purchase costs and accounting estimates used for non-current assets with a carrying amount of zero, which are still used by the entity, should be disclosed in the notes since these assets are not disclosed elsewhere.
A9 – Inventory differences should be disclosed in the notes if their value is significant.
A10 – It is necessary to explain the positions, such as other business income, other business expenses, etc., if the amounts are significant.
A11 – Graphs, tables, and charts increase the readability and understanding of notes and non-financial reports.
A12 – It is unnecessary to define accounting categories such as income, expenses, fixed and current assets, etc., in the notes since they are already defined in accounting standards.
A13 – It is unnecessary to describe in the notes those positions that value is 0.00 (which the entity does not own) and the corresponding tables or charts.
A14 – The notes should preferably disclose additional information that owners/managers consider essential (e.g., additional education, training, investment in information technology, community involvement, environmental policies).
A15 –Digital processes in accounting data processing and financial reporting should continue to evolve.

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