The International Journal of Digital Accounting Research
Vol. 16, 2016, pp.61-84
ISSN: 2340-5058

XBRL Extension to the Financial Statement Notes: Field-based Evidence on Unlisted Companies

Francesco Avallone. University of Genoa. Italy avallone@economia.unige.it

Paola Ramassa. University of Genoa. Italy ramassa@economia.unige.it

Elisa Roncagliolo. University of Genoa. Italy roncagliolo@economia.unige.it

Abstract. This paper aims at providing field-based evidence on actual benefits and costs arising from mandatory XBRL extension to financial statement notes for Italian unlisted companies. In pursuit of these objectives, we conduct interviews with Italian chartered accountants involved in the production of financial information. XBRL requirements for unlisted companies in Italy enable us to assess the effects of the mandatory XBRL extension to the notes separately from its adoption for financial statements. Results suggest that the main benefit of this extension lies in an increased comparability across firms. However, this transition has not increased the number of data disclosed. On the contrary, the taxonomy might make more difficult to include voluntary disclosures and relevant information such as the statement of cash flows, thus leading to less data available for users. Our findings have relevant implications for regulators, users, and companies as well.

Keywords: XBRL; financial statement notes; disclosure; field research

1. INTRODUCTION

XBRL is an evolving technology, currently implemented in more than 50 countries around the world, and promoted by the international XBRL consortium,

Submitted April 2016
DOI: 10.4192/1577-8517-v16_3 *Accepted June 2016*

which is supported by more than 600 member organizations, from both the private and the public sector. Nevertheless, its adoption is not homogeneous around the world and XBRL filing can be required on a mandatory or a voluntary basis and limited to companies with specific features (e.g. listed companies). Additionally, some countries require XBRL implementation only for the balance sheet and the income statement, whereas other countries demand for its adoption in the financial statement notes as well.

The evolution and advancement of XBRL provide new opportunities for all actors involved in its implementation, signaling its increasing prominence as a core enabling technology in digital business reporting (Hoffman and Mora Rodríguez, 2013). Prior studies underlined the potential benefits arising from XBRL adoption, especially in terms of processing, preparation, and distribution of financial accounting information. The adoption of a common financial reporting taxonomy could enhance accessibility of financial reports, analysis of financial data, and comparison across companies (Debreceny and Gray, 2001). In such a scenario, the development of a common taxonomy for disclosure is a challenging issue (Sòstero, 2010; Panizzolo, 2010; Valentinetti and Rea, 2011) since tagging notes is a much more demanding task than financial statement items and it adds complexity in filings (Debreceny *et al.* 2011). Thus, analyzing XBRL implementation to financial statement notes provides an excellent opportunity to assess the contribution of this open standard language to actually enhance corporate accounting information quality and standardization.

The Italian context provides an interesting setting for this analysis. In Italy XBRL filings for the balance sheet and the income statement have been mandatory for unlisted companies from 2009 financial statements. A mandatory extension to the notes is effective from 2015, after two experimental versions adopted on a voluntary basis in 2013 and 2014. This gives us a research opportunity to explore the effects of the mandatory XBRL extension to financial statement notes separately from its adoption for the balance sheet and the income statement. Additionally, investigating unlisted companies is of particular interest for at least two reasons. First, they generally present a more limited organizational structure that might affect the quantity and quality of disclosures as well as the degree of pervasiveness of XBRL implementation. Secondly, most unlisted companies are SMEs and assessing the effects of XBRL adoption for them seems a relevant issue in the light of the European trend in reducing administrative burdens for small and medium companies.

In such a perspective, previous studies show that so far the awareness of XBRL features and considerable benefits is still limited among professionals in the Italian context (La Rosa and Caserio, 2013; Avallone *et al.* 2016), highlighting the need for further continued educational initiatives to promote the diffusion of XBRL and its technical features (Papa and Luisi, 2014). Particularly, a wide set of Italian actors involved in the financial reporting process claimed that the real improvement in the usefulness of information disclosed in XBRL could arise from its required extension to financial statement notes (Avallone *et al.* 2016). Practitioners argued that tagging notes offers a considerable number of potential benefits, as it could potentially provide data in a more comparable way, enhancing usability of financial data and thus improving the efficiency of subsequent financial analyses. Additionally, XBRL extension to the notes in their opinion could lead to an improvement in financial disclosure. Indeed, unlisted firms often provide very limited information in notes, with frequent cases of non-compliance even to mandatory requirements.

Based on these arguments, our study aims at providing field evidence on the effects of XBRL extension to financial statement notes, especially from a preparers' perspective. Particularly, we investigate: i) actual benefits practically perceived by chartered accountants from the mandatory extension of the XBRL taxonomy to financial statement notes as well; and ii) major costs preparers incurred in order to fulfill this new requirement. In pursuit of our objectives and consistently with the call for more field-based research on XBRL (Alles and Debreceny, 2012), we collect data with semi-structured interviews with Italian chartered accountants involved in the production of financial information, in order to assess their perception of costs and benefits arising from the mandatory XBRL adoption for the notes in Italy. Particularly, we explore benefits in terms of actual advantages, such as cost and time savings, and enhancement of disclosure transparency level. On the other hand, costs are investigated in terms of time and expenses required to extend XBRL to the notes.

Our main findings show that the main benefit of this transition lies in an increased comparability across firms. However, the adoption of XBRL in the notes does not seem to result in a richer disclosure, essentially due to the higher level of standardization introduced with the mandatory taxonomy. Indeed, it makes quite difficult to include voluntary disclosures and it is not required to complete mandatory tables in order to validate the XBRL instance document. Additionally, it does not encompass the statement of cash flows, though the current Italian GAAPs encourage companies to prepare it. Moreover, in the practitioners’ view the timing of this transition is not very convenient, since many requirement changes are expected after the implementation of the EU directive 34/2013.

Our study contributes to the existing literature on XBRL as well as to the broader financial reporting literature. Particularly, focusing on XBRL implementation to financial statement notes, we provide field evidence on the actual usefulness of this open standard language in addressing the needs of digital financial reporting, and enhancing disclosure integrity and accuracy as well as broader information quality. Additionally, we contribute to the academic literature on the actual need to reduce administrative burdens for SMEs, underlining the role that a technology tool, like XBRL, has provided in achieving this objective. The findings have relevant implications for all actors involved in XBRL adoption to understand the actual usefulness of XBRL extension to the notes in improving practice, and to raise several issues that should be considered in the future.

The rest of the paper is structured as follows. The next section reviews prior literature on XBRL with a particular focus on studies aimed at assessing the effect of its adoption on financial reporting. Section 3 describes our research questions and the research design, then section 4 discusses results emerging from our study. The final section provides conclusions.

2. LITERATURE REVIEW

The development of XBRL has attracted the interest of academic accounting research since its inception with a significant increase in the last years, helping to raise awareness of XBRL potential to improve financial data and information exchange (Fradeani, 2009; Roohani *et al.* 2010; Zambon, 2010; Perdana *et al.* 2015).

Early academic literature on XBRL mainly focused on the key role of this digital language in improving financial reporting process (Bonsón, 2001), highlighting potential benefits arising for both preparers and users (Debreceny and Gray, 2001). In this regard, prior studies on XBRL manly related to normative issues aiming at providing descriptive materials on XBRL by attracting the interest of practitioners' journals as well (Roohani *et al.* 2010). Afterwards, academic accounting literature focuses on taxonomy (Bonsón *et al.* 2009) as well as costs and benefits of XBRL implementation (Baldwin and Trinkle, 2011).

From a theoretical point of view, XBRL could potentially enable preparers to save costs, allow easier regulatory compliance and increase the efficiency in business decision-making and in the use of information systems (Doni and

Inghirami, 2010; Baldwin and Trinkle, 2011). Additionally, focusing on information providers, XBRL could enhance financial reporting preparation and distribution since it facilitates publication of multiple financial statement formats, promotes transparency, and standardizes financial reporting. In such a perspective, previous academic research underlined XBRL contribution in enhancing information quality and integrity (Perdana *et al.* 2015).

XBRL, indeed, could potentially enable more transparent, relevant and reliable corporate accounting information since companies can disclose more information in a more timely and accurate way through its implementation (Prichard and Roohani, 2004; Bonsón *et al.* 2008). Thus, the adoption of XBRL format to disclose accounting information could contribute to mitigate the information asymmetry problem (Ragothaman, 2012).

Particularly, Wagenhofer (2007) underlines the role of XBRL in enhancing a strong linkage between form and contents of disclosure because a widespread adoption of a common XBRL taxonomy could affect firms' disclosure policy, especially supporting standardization of financial disclosure. XBRL taxonomy, indeed, could be seen as a huge checklist for information since it shows clearly what information a firm is expected to make available. Similarly, Vasarhelyi *et al.* (2012) highlight the potential influence of XBRL adoption on standardization of disclosure format. In their opinion, the mandatory requirement for fully detailed tagging of disclosure may lead to an increasing demand for progression toward the standardization of disclosure meaning and content. Therefore, the improved standardization of disclosure could enhance information transparency and facilitate comparison across firms, resulting in better disclosure usefulness.

Thus, the major improvement to disclosure usefulness and transparency could arise from taxonomy extension to qualitative information beyond the financial statements (Arnold *et al.* 2012; Sutton *et al.* 2012).

Previous empirical studies, mainly focused on the US context, show that XBRL has a positive effect on information efficiency (Efendi *et al.* 2014), and mitigates information asymmetry (Yoon *et al.* 2011; Kim *et al.* 2012). In such a scenario, the development of XBRL taxonomies for narrative parts of the annual report is becoming increasingly important since additional financial and non-financial disclosures may help XBRL filers to attract new shareholders, thus enabling companies to reduce information asymmetries and to enhance the value of the firm (Kaya, 2014).

Focusing on empirical evidence, many studies aimed at examining the costs and benefits of XBRL adoption according to the point of view of all actors involved in the financial communication process. In this regard, Pinsker and Li (2008) carried out four phone and e-mail interviews with business managers of early adopter companies in Canada, Germany, South Africa and US in order to analyze their main perceptions regarding costs and benefits actually arising from XBRL adoption. Their main results suggest that involved actors consider cost savings related to a decrease in data redundancy as well as lower costs of bookkeeping as the most relevant benefits arising from XBRL adoption and implementation. On the other hand, costs in XBRL initial implementation especially relate to uncertainty in an unproven technology and costs – time and money – needed for success. Afterwards, along the lines of the study of Pinsker and Li (2008), Dunne *et al*. (2013) conduct a survey in the UK context in order to highlight major perceived benefits of a wide range of actors involved in the XBRL adoption, namely accountants, auditors, tax professionals, analysts, and fund managers. Similarly to Pinsker and Li, their results suggest that the no need to re-key information, the greater data comparability, inter-operability, and improving in data analysis are the most significant potential benefits of XBRL adoption.

Considering the usefulness of the availability of more information for decision-making purposes, Ghani *et al*. (2009) investigate the relevance of the users' perceptions of three digital reporting formats, namely PDF, HTML, and XBRL, suggesting that users' perceptions of usefulness among the digital reporting formats differ significantly with a great interest towards XBRL format, even if the greater interest does not arise for investment purposes. In this regard, some empirical research has investigated the benefits of tagging qualitative information, especially for financial reporting users. Particularly, Hodge *et al*. (2004) run an experiment in the US context and find out that hyperlinking qualitative information from the footnotes to quantitative information from the financial statements facilitates information acquisition and integration, resulting in improvements in decision making, especially for nonprofessional users. Similarly, the experiment of Henderson *et al*. (2015) run in the US context demonstrates the positive influence of XBRL-formatted financial statements in order to improve the investment performance, especially for nonprofessional investors.

From the preparers' point of view, a questionnaire survey addressed to 37 Italian CFOs and chartered accountants reveals the key role played by XBRL in enhancing information standardization and comparability, especially for reporting intellectual capital (Papa and Luisi, 2014). Additionally, interviews with professionals involved in XBRL adoption in the Italian context show that the XBRL extension to financial statement notes could really boost the usefulness of the taxonomy (Avallone *et al*. 2016). In their opinion, tagging the notes could provide potential benefits for preparers facilitating the accomplishment of financial disclosure requirements, and consequently for users due to higher data comparability, and an increase in data published in annual reports.

Thus, our field-based study aims at exploring whether tagging the notes influences firms' disclosure policy focusing on costs and benefits actually perceived by preparers, who have been directly involved in this extended XBRL adoption. Some recent empirical studies partially aim at reaching this objective, exploring the influence of a standardized digital language in improving disclosure. Boritz and No (2008), for example, find out that XBRL-related document preparation practices are based on very limited guidance and experience. Additionally, Janvrin and No (2012) interview nine accountants responsible for XBRL implementation at five accelerated filer companies in the US context and two of them argue that had serious concerns in detail-tagging financial statement footnotes. More recently, Kaya (2014) investigates whether and how firm-specific characteristics explain the variability of voluntary disclosure in XBRL. Contrary to Boritz and No (2008), findings show that firms invest significant time and effort in voluntarily filing their notes in XBRL. Additionally, the extent of overall disclosures in XBRL is significantly and positively related to the firm size and the level of innovativeness, as measured by the ratio of R&D expenditures to sales.

Nevertheless, these studies focus on the US context considering voluntary or early XBRL filers for the notes, whereas in Italy XBRL adoption in the notes is currently required on a mandatory basis for unlisted companies.

3. RESEARCH QUESTIONS AND METHOD

Building on previous literature, this paper aims at assessing the effects of XBRL mandatory extension to financial statement notes of unlisted companies in the Italian context. To this end, we have carried out a field study focused on benefits and costs perceived by practitioners in the year of transition. In this regard, it is worth recalling that firms required to use XBRL for financial statement notes already used this language for the balance sheet and the P&L, thus allowing us to look at the specific effect of this mandatory extension.

We pursue our main objective through an exploratory study focused on the two following research questions:

RQ1: What are the main benefits of the mandatory XBRL extension to financial statement notes?

RQ2: What are the main costs and present limitations of the mandatory XBRL extension to financial statement notes?

With reference to benefits, the two key advantages expected in adopting XBRL for notes are essentially an increase in financial statement comparability and a higher amount of data disclosed in annual reports. While the former effect can be seen as a direct consequence of XBRL adoption, the latter could be an indirect positive outcome of this transition. Indeed, some scholars and practitioners share the idea that the taxonomy might represent a sort of checklist inducing firms to increase the number of items to be disclosed in financial statements. This could be particularly relevant in the light of the very limited amount of data generally disclosed in notes by unlisted companies that often do not include even mandatory items.

As regards costs and limitations, we are interested in identifying possible negative effects of this transition that might be due to operative problems connected to the first year of application or to other issues, such as the rigid scheme imposed by the taxonomy. In this regard, it is worth recalling that studying the transition year of XBRL extension to notes might lead to results partly depending on temporary problems and limitations that can be effectively addressed in the following years.

To address the above mentioned research questions, we opted for a qualitative research approach in order to gain a better understanding of experiences, and perceptions of practitioners involved in financial reporting and to explore more in depth the effects of this very recent transition. So, we have carried out a field study in order to conduct a substantive investigation oriented towards providing bases for understanding the working of XBRL in action (Hopwood, 1983; Alles and Debreceny, 2012). More specifically, we decided to take the perspective of preparers due to the very recent change in filing requirement. Indeed, users might be not immediately aware of the effects of this transition, especially considering the limited XBRL knowledge still characterizing some classes of Italian users (Avallone *et al.* 2016).

We collected data by conducting 13 semi-structured interviews with a set of chartered accountants involved in financial statement preparation. Actually, these interviewees represent a qualified data source for their direct knowledge and experience of XBRL, and are a relatively considerable number compared to previous XBRL literature. Additionally, they can share their own perceptions on XBRL adoption being in touch with many other firms and individuals using XBRL. As a result, interviewing a chartered accountant can help us in understanding XBRL effects on both their professional activity and on their clients' practices. It seems worth noting that this choice is strictly dependent on our aim, namely providing preliminary insights into preparers' opinion, without the intention of generalising our empirical evidence to represent exhaustively the perspectives of all actors involved in XBRL financial reporting. The motivation for semi-structured interviews derives from the need to obtain information from interviewees leaving them free to express their opinion on the topic. This allows to outline a more comprehensive picture of XBRL effects, based more on real practical experiences and less on researchers' expectations (Rubin and Rubin, 1995).

Interviews regarded practitioners' perceptions on the advantages and disadvantages of XBRL mandatory extension to financial statement notes. More specifically, chartered accountants were asked about: (i) any significant increase in information comparability and richness, and (ii) major costs they incurred, in terms of time and expenses required to extend XBRL to the notes. To avoid interpretation problems that are common in indirect forms of data collection and in dialogues between individuals looking at the same phenomenon from different perspectives, questions were asked with a strict link to operating practices (McCracken, 1988).

Interviews were conducted in May and June, 2015 and they had an average duration of forty-five minutes. They were not audiotape recorded to favor the confidence of interviewees and to encourage them to be very frank in comments (Stoner and Holland, 2004), but information have been collected in notes, integrated with as many details as possible immediately after interviews to avoid data losses.

4. DISCUSSION OF RESULTS

4.1 Summary Evidence from the Answers

This paragraph sets out the results of the questions we asked about both the benefits and the disadvantages that the adoption of XBRL in notes to the financial statements could have in terms of financial disclosure quality, considering the first-time adoption in Italy and the chartered accountants' perspective. Firstly, we briefly show the answers to our main questions, with specific interest for the closed-ended questions requiring a yes/no answer. Next, we explain more in depth the professionals' points of view by showing some extracts from the interviews.

Table 1 shows a summary of the frequency in the answers to our main closed-ended questions. Although most of interviewees relate the adoption of XBRL in notes with the improvement in comparability between firms (84.6%), the full sample of professionals interviewed considers that better comparability does not increase information actually available to users. In other words, the higher comparability between firms due to the adoption of the same tables in notes seems to be not followed by an increase in the information disclosed through those tables. Further, the standardization of the tables used in the notes could reduce the possibility to disclose information not explicitly requested on a specific topic (voluntary disclosure). This is in line with answers highlighting the absence of benefits to users despite the increased cost of information production (question no. 4).

Questions	**Yes (%)**	**No (%)**
1) Does the adoption of XBRL in notes improve comparability between financial statements of different firms?	11 (84.6)	2 (15.4)
2) Does the adoption of XBRL in notes increase the information available to users?	0 (0)	13 (100)
3) Does the adoption of XBRL in notes generate an increase in the cost of producing information?	9 (69.2)	4 (30.8)
4) Is the increase in the cost of producing information followed by a benefit to users?	1 (7.7)	12 (92.3)

Table 1. Empirical evidence on costs/benefits of XBRL adoption in notes

Additionally, it is apparent that the adoption of XBRL in notes has required a period of adjustment to new requirements (due to changes in format, software update, etc.), thus leading to an increase in the cost of producing the notes to the financial statements (e.g. especially time spent getting work done). The higher level of costs, however, refers only to the first-year of XBRL adoption for notes, since the time required to adapt to the new rules could be considered as an investment for the future financial statement production. Taken together, these results suggest that the stronger comparability between firms is not automatically interpreted in terms of higher information transparency. Specifically, the standardization of tables required by XBRL taxonomy in the notes produced a lack of flexibility in managing any voluntary information firms should disclose to better explain their (specific) condition, thus getting more difficult to insert this kind of data in the notes (in any case, isolating that information at the end of the mandatory tables).

4.2 The Adoption of XBRL in Notes: Advantages and Disadvantages

According to our respondents, one major advantage to the XBRL adoption was the increased comparability between firms, due to the existence of the same tables that set up the notes to financial statements. Except for the first time adoption of the XBRL in the notes, the standard time required for drawing up the document will be exactly the same required in the past. Thus, the net result of XBRL adoption in notes seems positive, since it allows producing more comparability at the same cost of producing information.

"... It is clear that having exactly the same tables in notes for every firm could enhance the comparability between firms. This is especially true in comparative analysis of financial statements….Since the standard time for producing the notes is exactly the same required in the past (with the only exception of the first-year of new rules implementation), it seems that in the next years a net benefit could arise (better comparability at the same costs of information production)…".

The increase in comparability, however, was not followed by an improvement in firm transparency. Standardization of notes did not improve the quantity of information disclosed, because of the possibility to omit some tables without any problem in validating the documents. One respondent pointed out the potential improvement in the quantity of information released if some checks were introduced on the data released in the financial statements, thus linking the balance sheets and the profit and loss accounts to the tables in notes.

"… In my view, it does not make sense to have the possibility to omit some tables in the notes without any checks. A real improvement in the quantity of information released could be achieved if a binary choice existed in the balance sheet or in the income statements… For instance, if treasury share exists in the balance sheet, thus it should be mandatory to fill in the table that contains this information… It seems obvious but today this table can be omitted even if the balance sheet shows the existence of treasury shares…."

The main disadvantages seemed to be related to the perimeter of the XBRL taxonomy, the complexity in disclosing voluntary information, and the timing of the adoption of the new taxonomy. With reference to the first aspect, the respondents pointed out the need to extend the XBRL taxonomy to the statements of cash flows. This statement is considered increasingly important, not only in the IFRS context, but also in the OIC and national rules (national code) perspective.

" *… It does not make sense to avoid considering the statement of cash flows in the taxonomy. The increasing importance of this document in interpreting the financial situation of a firm requires a specific taxonomy in order to produce a higher level of comparability between companies. This is particularly true if we consider the improvement of both national standards and national rules. The former (OIC 10) already pointed out the need of cash-flow statements, the latter should introduce this document as a mandatory document that composes the financial statement (together with Balance sheet, Income statements, and the notes) as a consequence of the forthcoming implementation of the EU directive 34/2013 in Italy ..."*

The complexity in disclosing voluntary information is another key issue. Specifically, the higher level of standardization of tables in notes reduces the room for voluntary disclosure, useful to better explain firms' peculiarities. The only way to disclose voluntary data is to add information at the end of a table, with an unsuitable impact on the financial information exhibition. Thus, although most respondents could understand the potential advantages in terms of comparability between firms introduced by XBRL taxonomy, they considered that this benefit is not up to expectations, certainly lower than the emerging disadvantages, that could be summarized into a sort of barrier to voluntary disclosure.

"…Definitely, the worst aspect of XBRL taxonomy for notes is the lack of incentive for voluntary disclosure. If the taxonomy only accepts the mandatory table required, without any spaces for voluntary disclosure, the increased comparability should be followed by the risk of a lack of disclosure… The only way to disclose voluntary information is to disclose that data at the end of a table, with poorer results in terms of financial disclosure quality… Therefore, the higher level of comparability reached through XBRL taxonomy in the notes could be followed by a decrease in the quality of information released by the companies…".

Finally, most respondents underlined that the implementation of new XBRL taxonomy to the notes could have followed, and not come first, the forthcoming implementation of the EU directive 34/2013 in Italy. The proposal of EU Directive implementation in Italy should introduce a lot of changes in the financial statements and in notes as well, thus requiring potential future changes in the XBRL taxonomy for the notes. Therefore, since the changes in the civil code should have implemented within the end of July, 2015, a delayed implementation of XBRL taxonomy for the notes could have avoided a potential "double" cost for professionals, due to the need to have twice first-time adoption of XBRL for notes, this year and in the year of implementation of new rule in the Italian civil code.

"... Considering the forthcoming changes in the Italian civil code due to the implementation of EU Directive 34/2013, the XBRL taxonomy for notes could have been postponed. Particularly, it could have avoided the cost incurred by professionals, due to the need to learn the new procedures... The costs we incurred this year are not investments if we are going to have new costs for the changes in the same procedures..."

5. CONCLUSIONS

5.1 Discussion

Results from the current study draw attention to the main effects of the mandatory XBRL extension to financial statement notes required for Italian unlisted companies from the 2014 annual reports. To explore benefits and costs of this transition, we focus on the preparers' perspective by interviewing chartered accountants directly involved in XBRL.

According to their perceptions, it seems that the major advantage of this extension is an increased comparability between firms, due to the use of common tables deriving from the mandatory taxonomy. However, our results suggest that this is the only direct - and expected – positive effect of this transition. Indeed, the use of XBRL to tag financial statement notes has not led - at least so far - to the indirect positive outcome of a richer disclosure by unlisted companies. On the contrary, many professionals state that the higher level of standardization reduces the room for voluntary disclosure. Additionally, it does not seem to have a positive impact on compliance since it is still possible to omit some tables without any problem in validating the documents.

The main disadvantages and limitations of adopting the XBRL taxonomy for notes are essentially related to: (i) the perimeter of the taxonomy; (ii) the complexity of disclosing voluntary information; and (iii) the timing chosen for this transition. Indeed, the taxonomy does not encompass the statement of cash flows, even if Italian GAAPs currently encourage its preparation, and it makes quite difficult for preparers to include voluntary information not included in the standard tables. Additionally, practitioners are critical on the choice of the timing for this transition, which does not consider the fact that many requirements will change after the implementation of the EU directive 34/2013 in Italy.

5.2 Theoretical implications

The present paper contributes to existing empirical literature on XBRL adoption illustrating the separate effect of XBRL-tagged notes with some theoretical implications. First, from a methodological point of view evidence collected through interviews highlights the relevance of field studies in exploring the actual impact of transitions in digital financial reporting. This point is even more crucial when investigating small and medium sized companies that might experience problems due also to limited administrative and technical resources. Second, findings regarding the Italian context might help in designing research aimed at understanding the different role that XBRL can play in enhancing digital financial reporting in listed and unlisted companies. In this perspective, the current paper complements previous studies mainly focusing on more “sophisticated” companies, such as voluntary/early adopters and listed companies, by exploring the effects of a relatively complete XBRL adoption on smaller companies due a to mandatory requirement.

5.3 Practical implications

Empirical evidence on costs and benefits of the mandatory extension of XBRL adoption to the notes has practical implications for regulators and other actors involved in the process such as preparers and users.

The issues highlighted by the interviews are of interest both to the Italian bodies involved in the XBRL adoption and to regulators of other jurisdictions that are currently considering the idea of requiring a mandatory XBRL for a wide universe of unlisted companies. Our results might support the formers in developing solutions to address some problems of the transition and help the latters in figuring out immediate benefits and issues linked to the XBRL extension to notes.

Findings regarding the limited benefits acknowledged by chartered accountants could also stimulate reflections on how users and preparers could get more advantages from the XBRL adoption in the future to outweigh the transition costs here illustrated.

5.4 Limitations and future research

Our findings should be considered in the light of some limitations. Firstly, we focus our analysis on the preparers' perspective by interviewing chartered accountants. Secondly, we look at advantages and disadvantages of XBRL extension to notes in the first year of adoption, so our findings could highlight temporary limitations and not consider possible future benefits. However, these preliminary findings might contribute to XBRL literature and help in addressing transition issues, leaving to future research the task of further investigating the effects of a more comprehensive XBRL adoption.

6. REFERENCES

ALLES, M.; DEBRECENY, R. (2012): "The evolution and future of XBRL research", *International Journal of Accounting Information Systems,* vol. 13, n. 2: 83-90. http://dx.doi.org/10.1016/j.accinf.2012.03.006

ARNOLD, V.; BEDARD, J.C.; PHILLIPS, J.R.; SUTTON, S.G. (2012): "The impact of tagging qualitative financial information on investor decision making: Implications for XBRL", *International Journal of Accounting Information Systems,* vol. 13, n. 1: 2-20. http://dx.doi.org/10.1016/j.accinf.2011.12.002

AVALLONE, F.; RAMASSA, P.; RONCAGLIOLO, E. (2016): The Pros and Cons of XBRL Adoption in Italy: A Field Study. Mancini, D., Dameri, R.P., Bonollo E. (eds.) Strengthening Information and Control Systems. The Synergy Between Information Technology and Accounting Models: 157-170. Springer Berlin Heidelberg. http://dx.doi.org/10.1007/978-3-319-26488-2_12

BALDWIN, A.A.; TRINKLE, B.S. (2011): "The impact of XBRL: A Delphi investigation", *The International Journal of Digital Accounting Research,* vol. 11, n. 17: 1-24. http://dx.doi.org/10.4192/1577-8517-v11_1

BONSÓN, E. (2001): "The role of XBRL in Europe", *The International Journal of Digital Accounting Research,* vol. 1, n. 2: 101-110. http://dx.doi.org/10.4192/1577-8517-v1_5

BONSÓN, E.; CORTIJO, V.; ESCOBAR, T. (2008): "The role of XBRL in enhanced business reporting (EBR)", *Journal of Emerging Technologies in Accounting*, vol. 5, n. 1: 161-173. http://dx.doi.org/10.2308/jeta.2008.5.1.161

BONSÓN, E.; CORTIJO, V.; ESCOBAR, T. (2009): "Towards the global adoption of XBRL using International Financial Reporting Standards (IFRS)", *International Journal of Accounting Information Systems*, vol. 10, n. 1: 46-60. http://dx.doi.org/10.1016/j.accinf.2008.10.002

BORITZ, J.E.; NO, W.G. (2008): "The SEC's XBRL voluntary filing program on EDGAR: A case for quality assurance", *Current Issues in Auditing*, vol. 2, n. 2: A36-A50. http://dx.doi.org/10.2308/ciia.2008.2.2.A36

DEBRECENY, R.S.; FAREWELL, S.M.; PIECHOCKI, M.; FELDEN, C.; GRÄNING, A.; D'ERI, A. (2011): "Flex or Break? Extensions in XBRL Disclosures to the SEC", *Accounting Horizons*, vol. 25, n. 4: 631-657. http://dx.doi.org/10.2308/acch-50068

DEBRECENY, R.; GRAY, G.L. (2001): "The production and use of semantically rich accounting reports on the Internet: XML and XBRL", *International Journal of Accounting Information Systems*, vol. 2, n. 1: 47-74. http://dx.doi.org/10.1016/S1467-0895(00)00012-9

DONI, F.; INGHIRAMI, I.E. (2010): Strategy Management Systems e XBRL: mutui rapporti e interconnessioni. Zambon, S. (Ed.): XBRL e informativa aziendale. Traiettorie, innovazioni e sfide, Part III: 286-311. Franco Angeli, Milano.

DUNNE T.; HELLIAR, C.; LYMER, A.; MOUSA, R. (2013): "Stakeholder engagement in internet financial reporting: The diffusion of XBRL in the UK", *The British Accounting Review*, vol. 45, n. 3: 167-182. http://dx.doi.org/10.1016/j.bar.2013.06.012

EFENDI, J.; PARK, J.D.; SMITH, L.M. (2014): "Do XBRL filings enhance informational efficiency? Early evidence from post-earnings announcement drift", *Journal of Business Research*, vol. 67, n. 6: 1099-1105. http://dx.doi.org/10.1016/j.jbusres.2013.05.051

FRADEANI, A. (Ed.) (2009): XBRL il presente ed il futuro della comunicazione economico-finanziaria. Giuffrè Editore, Milano.

GHANI E. K.; LASWAD, F.; TOOLEY, S. (2009): "Digital reporting formats: Users' perceptions, preferences, and performances", *The International Journal of Digital Accounting Research*, vol. 9, n. 1: 45–98. http://dx.doi.org/10.4192/1577-8517-v9_3

HENDERSON C.; HUERTA E.; GLANDON T.A. (2015): "Standardizing the Presentation of Financial Data: Does XBRL's Taxonomy Affect the Investment Performance of Nonprofessional Investors?", *The International Journal of Digital Accounting Research*, vol. 15: 127-153. http://dx.doi.org/10.4192/1577-8517-v15_5

HODGE, F.D.; KENNEDY, J.J.; MAINES, L.A. (2004): "Does search-facilitating technology improve the transparency of financial reporting?", *The Accounting Review*, vol. 79, n. 3: 687-703. http://dx.doi.org/10.2308/accr.2004.79.3.687

HOFFMAN C.; MORA RODRIGUEZ M. (2013): “Digitizing Financial Reports – Issues and Insights: A Viewpoint”, *The International Journal of Digital Accounting Research*, vol. 13: 73-98. http://dx.doi.org/10.4192/1577-8517-v13_3

HOPWOOD, A.G. (1983): “On trying to study accounting in the contexts in which it operates”, *Accounting, Organizations and Society*, vol. 8, n. 2/3: 287-305.

JANVRIN, D.J.; NO, W.G. (2012): “XBRL implementation: A field investigation to identify research opportunities”, *Journal of Information Systems*, vol. 26, n. 1: 169-197. http://dx.doi.org/10.2308/isys-10252

KAYA, D. (2014): “The influence of firm-specific characteristics on the extent of voluntary disclosure in XBRL: Empirical analysis of SEC filings”, *International Journal of Accounting and Information Management*, vol. 22, n. 1: 2-17. http://dx.doi.org/10.1108/IJAIM-05-2011-0007

KIM, J.W.; LIM, J.H.; NO, W.G. (2012): “The effect of first wave mandatory XBRL reporting across the financial information environment”, *Journal of Information Systems*, vol. 26, n. 1: 127-153. http://dx.doi.org/10.2308/isys-10260

LA ROSA, F.; CASERIO, C. (2013): Are Auditors Interested in XBRL? A Qualitative Survey of Big Auditing Firms in Italy. Mancini, D., Vaassen, E.H.J., Dameri, R.P. (eds.) Accounting Information Systems for Decision Making: 13-45. Springer, Berlin Heidelberg.

McCRACKEN, G. (1988): The long interview. Sage University Paper Series on Qualitative Research Methods. Sage, Beverly Hills.

PANIZZOLO, D. (2010): Architettura di una tassonomia XBRL: il caso della nota integrativa al bilancio. Zambon, S. (Ed.): XBRL e informativa aziendale. Traiettorie, innovazioni e sfide, Part I: 54-85. Franco Angeli, Milano.

PAPA, M.; LUISI, F. (2014): “Exploring the Usefulness of Extensible Business Reporting Language (XBRL) for Reporting Intellectual Capital (IC): Evidence From Italian Preparers”, *Journal of Modern Accounting and Auditing*, vol. 10, n. 5: 537-550.

PERDANA, A.; ROBB, A.; ROHDE, F. (2015): “An Integrative Review and Synthesis of XBRL Research in Academic Journals”, *Journal of Information Systems*, vol. 29, n. 1: 115-153. http://dx.doi.org/10.2308/isys-50884

PRICHARD, J. J.; ROOHANI, S. (2004): "Repository for XBRL documents: Challenges and opportunities", *The International Journal of Digital Accounting Research*, vol. 4, n. 7: 57–59.

PINSKER, R; LI, S. (2008): "Costs and benefits of XBRL adoption: Early evidence", *Communications of the ACM*, vol. 51 n. 3: 47-50. http://dx.doi.org/10.1145/1325555.1325565

RAGOTHAMAN, S. (2012): "Voluntary XBRL adopters and firm characteristics: An empirical analysis", *The International Journal of Digital Accounting Research*, vol. 12, n. 1: 93–119. http://dx.doi.org/10.4192/1577-8517-v12_4

ROOHANI, S.; XIANMING, Z; CAPOZZOLI, E.A.; LAMBERTON, B. (2010): "Analysis of XBRL literature: A decade of progress and puzzle", *The International Journal of Digital Accounting Research*, vol. 10, n. 1: 131–147. http://dx.doi.org/10.4192/1577-8517-v10_6

RUBIN, H.J.; RUBIN, I.S. (1995): Qualitative interviewing: The art of hearing data. Sage Publications, Thousand Oaks.

SÒSTERO, U. (2010): La tassonomia XBRL italiana della nota integrativa: analisi delle fonti normative. Zambon, S. (Ed.): XBRL e informativa aziendale. Traiettorie, innovazioni e sfide, Part I: 86-103. Franco Angeli, Milano.

STONER, G.; HOLLAND, J. (2004): Using case studies in finance research. Humphrey, C., Lee, B. (eds.) The real life guide to accounting research: A behind-the-scenes view of using qualitative research methods. Elsevier, Oxford.

SUTTON, S.G.; ARNOLD, V.; BEDARD, J.C.; PHILLIPS, J.R. (2012): "Enhancing and structuring the MD&A to aid investors when using interactive data", *Journal of Information Systems*, vol. 26, n. 2: 167-188. http://dx.doi.org/10.2308/isys-50256

VALENTINETTI D.; REA M.A. (2011): "Adopting XBRL in Italy: Early evidence of fit between Italian GAAP Taxonomy and current reporting practices of non-listed companies", *The International Journal of Digital Accounting Research*, vol. 11: 45-67. http://dx.doi.org/10.4192/1577-8517-v11_3

VASARHELYI, M.A.; CHAN, D.Y.; KRAHEL, J. (2012): "Consequences of XBRL standardization on financial statement data", *Journal of Information Systems*, vol. 26, n. 1: 155-167. http://dx.doi.org/10.2308/isys-10258

WAGENHOFER, A. (2007): Economic consequences of internet financial reporting. Debreceny, R., Felden, C., Piechocki, M. (eds.) New Dimensions of Business Reporting and XBRL: 99-123. DUV.

YOON, H.; ZO, H.; CIGANEK, A.P. (2011): "Does XBRL adoption reduce information asymmetry?", *Journal of Business Research*, vol. 64, n. 2: 157-163. http://dx.doi.org/10.1016/j.jbusres.2010.01.008

ZAMBON, S. (Ed.) (2010): XBRL e informativa aziendale. Traiettorie, innovazioni e sfide. Franco Angeli, Milano.