

# The determinants of the quality of mandatory disclosure of intangible assets under IFRS

Alain Devalle and Fabio Rizzato

**Abstract—** Disclosure is an important topic in financial statement analysis. This paper analyzed 4.950 items of mandatory disclosure of 165 groups listed on the Italian stock exchange and belonging to the FTSE All Share. An OLS regression model was used to define the determinants that influence the mandatory disclosure of intangible assets. Results show that the weight of intangible assets, the size of the company and the return on equity are positively associated to the mandatory disclosure of intangible assets. This research contributes to defining the importance of mandatory disclosure.

**Keywords—**Component: Disclosure, Intangible assets, Quality

## I. INTRODUCTION

Disclosure of a financial statement is a key concept for the analysis of a financial statement. Disclosure allows investors to understand the application of the accounting principles used by companies and permits investors to analyze the relevant information (Healy et al., 2001 [1]; Graham et al., 2005 [2]; Lambert et al., 2007 [3]). Some authors (Graham et al., 2005 [2]) stated that a relevant and complete disclosure produces economic advantages for companies even if it entails investments in information systems (Verrecchia, 1983 [4]; Darrough et al. 1990 [5]; Skinner D.J, 1994 [6]; Botosan C.A., 2000 [7]). The main source of financial information is the consolidated financial statement.

Disclosure can be classified in different ways (Devalle et al., 2013 [8]), depending on the obligation to disclose information, on the typology of information disclosed and on the way it is reported. With reference to the obligation to disclose information, it is possible to distinguish between mandatory disclosure required by laws, international accounting standards, etc. and voluntary disclosure: companies disclose events that are not specifically required by laws, regulations, etc., but whose information could be relevant for investors (Graham J. R et al., 2005 [2]). Analyzing the typology of information disclosed we can analyze the financial information related to the financial statement of the company and non-financial information not related to the financial statement, as for example market share and customer satisfaction (Robba W.G., Singleb E., Zarzeskic T., 2001 [9]). Finally, with reference to the way the information is disclosed we can identify (Marston et al., 1991 [10]; Boyatzis, et al., 1998 [11]) the quantitative information, based on tables, graphs, numbers, etc. and the qualitative information based on texts, diagrams, etc.

Disclosure of the financial statement is a topic fuelled by the introduction of IFRS in Europe and the European Financial Reporting Advisory Group published a Discussion Paper (July 2012) entitled “Towards a Disclosure Framework for the Notes” with the objective to “ensure that all and only relevant information is disclosed in an appropriate manner, so that detailed information does not obscure relevant information in the notes to the financial statements” [12]. The Discussion Paper (July 2012) underlines that “there is a strong consensus in the financial community that disclosures in the notes to the financial statements have become unwieldy; the increasing length of the notes has done little to improve the quality of information, and may have even decreased it because of information overload. Accordingly, it has become increasingly difficult for capital providers to rely on the information contained in the notes to support their decisions about the allocation of resources. Recent reports by different parties (preparers, users and auditors of financial statements) have highlighted the need for the current disclosure regime to be overhauled as it is no longer sustainable”.

In this context the objective of the paper is to verify the quality of mandatory disclosure of IAS 38 by an empirical research. The sample is composed by all the Italian companies belonging to the FTSE all SHARE. More specifically, the aim of the paper is to verify the determinants of the quality of disclosure of IAS 38. The research question is: what are the determinants that influence the quality of mandatory disclosure of IAS 38 on the Italian stock exchange?

This research contributes to defining the importance of mandatory disclosure and which determinants influence disclosure in Italy.

The remainder of this paper is organized as follows. Section 2 presents the literature review on mandatory disclosure. Methodology and Data are presented in Section 3. Results are presented in Section 4 and the paper concludes with a discussion on the findings and some indications regarding future development (Section 5).

## II. BACKGROUND AND QUESTION RESEARCH

Many studies have been conducted on disclosure. The first studies on disclosure refer to the late sixties: for example, we can quote Copeland et al., 1968 [13]; Mautz R.K. et al 1978 [14]; Nair et al., 1980 [15]; Gray S. Jet al., 1884 [16]; etc. Groups disclose information through different channels such as annual reports, analyst presentations, investor relations, interim reports, etc. (Hassan O. PP. et al, 2010 [17]). Previous

research has demonstrated that the level of compliance of mandatory disclosure depends on different factors such as control bodies, government authorities, etc. (Graham J. R. et al., 2005 [2]; Marston C. L. et al., 1991 [10]). A great deal of research has shown that even if the disclosure is mandatory, its quality is very low (Devalle et al., 2011 [18]; Devalle et al., 2012 [19]; Devalle et al., 2013 [8]). Gerpott et al. (2008 [48]) investigated the intangible disclosure quality in an international sample of 29 stock-quoted telecommunications network operators. Results showed that companies might have to disclose more information with a higher quality.

Moreover, as stated by Marston, disclosure “aroused a great deal of academic interest in the past” (Marston C.L. et al., 1991 [10]) and consequently academics published many studies. Analyzing the literature on disclosure it is possible to underline that many studies have been conducted on mandatory and voluntary disclosure at the same time Singhvi S., 1968 [20], 1971 [21]; Stanga K.G., 1976 [22]; Coy D. et al, 1993[23]; Wallace R.S.O et al, 1994 [24], and that the sample is based on non-EU companies Chen C.J.P et al, 2000 [25]; Street D. et al., 2000 [26]; Ho S., et al., 2001 [27]; Bujaki M. et al, 2002 [28]. To the best of our knowledge there is only one relevant study published by Principe (2004) [29] based on an Italian sample, but it refers to voluntary disclosure. The sample of the above mentioned study was based on groups before the introduction of IFRS and is focused on operating segments.

This paper contributes to the literature because it is focused only on the mandatory disclosure of the financial statement with reference to IAS 38 – Intangible assets. Furthermore the analysis is based on the Italian listed companies belonging to the FTSE All Share. The sample analysed is based on 227 companies and the main source of information is the consolidated financial statement.

Thus the research question of this paper is: (Q1) What are the main determinants of the quality of mandatory disclosure of intangible assets?

### III. DATA AND METHODOLOGY

The examined sample is made up of the groups listed on the Italian Stock Exchange. In order to answer the above mentioned research question, the sample is reported in Table I.

TABLE I.  
PRESENCE OF INTANGIBLE ASSETS IN THE SAMPLE ANALYZED

<i>Answer</i>	<i>N</i>	<i>% sample analyzed</i>
<b>YES</b>	165	73%
<b>NO</b>	62	27%
<b>Total sample analyzed</b>	227	100%

The main source of the information collected was the 2010 financial statement and in particular we hand collected mandatory disclosure from the notes of the consolidated financial statement. The disclosure collected refers to the mandatory disclosure of IAS 38 (from par. 118 to par. 130). The 30 items were defined on the basis of the KPMG disclosure checklist (KPMG, 2011 [30]) and on the basis of par. 118 to 130 of IAS 38. Thus we have hand collected 4,950

items from the notes of the groups analyzed. To determine the quality of mandatory disclosure of intangible assets we have defined an index of disclosure starting from the model defined by Cooke (1989) [31] with some modifications. In fact, the analysis is based on the use of a weighted Dscore, ascribing a different weight to the information collected (Inchausti,1997 [32]). To reduce the subjectivity of the weighted approach our research is based on the SAIDIN INDEX as stated by Hodgdon [33]. We assigned a weight to each item by using the following equation (1):

$$a_i = 1 - \frac{\sum_{t=1}^1 \sum_{j=1}^{165} d_{i,j,t} r_{i,j,t}}{\sum_{t=1}^1 \sum_{j=1}^{165} r_{i,j,t}}$$

Where:

T = year

J = number of the groups analyzed

I = items analyzed

R = information present or not present (NA)

The Dscore index used in this research is the following (2) [7]:

$$Wdscore_{38}_{j,t} = \frac{\sum_{i=1}^{4,950} a_i d_{i,j,t} r_{i,j,t}}{\sum_{i=1}^{4,950} r_{i,j,t}} \quad (2)$$

Where:

T = year

J =analyzed groups

A = weight to each item

I = items analyzed

D = information present or not present (NA)

R = information necessary or not necessary

Then, in order to assess which kind of variables are more meaningful to understand the abovementioned score of disclosure we have used different regression models that consider WDScore\_38 as a dependent variable and other quantitative values as independent variables. More in depth, we have used four main groups of independent variables based on the weight of intangible assets, the firm size (Cerf A.R., 1961 [34]; Abd-Elalam O.H., 2003 [35]; Akhtaruddin M., 2005 [36]; Ali J.M. et al, 2004 [37]; Al-shammari B. et al, 2008 [38]; Tsalavoutas I., 2011 [39], the performance (Cerf A.R., 1961 [34]; Singhvi S., 1968 [20]; Wallace R.S.O et al, 1987 [40]; Raffournier B., 1995 [41]; Inchausti,1997 [32]; Hossain M., 2009 [42]; Lambert et al., 2007 [3], and other variables consistent with previous literature.

We measured the weight of intangible assets to consider the significance of the intangible assets with the following ratios: “Equity on Intangible asset” and “Intangible asset on Total asset”.

The firm size was considered by taking into account the market value, and performance was evaluated with two ratio of profitability represented by return on equity (ROE) and return on sales (ROS) and one ratio of financial performance represented by leverage. Finally we considered two control variables as Sector and Auditing firm to increase the significance of the regression model.

In order to define the determinants that influence the DSCORE of IAS 38 we used the following OLS regression model (3) as defined by the main literature Cooke T.E., 1991[43]; Cooke T.E., 1992 [44]; Archambault J.J. et al, 2003 [45]; Gray S.J. et al, 2011 [46]; Glaum M., et al, 2013 [47], Gerpott T. et al, 2008 [48]:

$$\begin{aligned}
 WDscore\_IAS38_j = & \alpha + \beta_1 \left( \frac{Equity}{Intangible\ asset} \right)_j \\
 & + \beta_2 \left( \frac{Intangible\ asset}{Total\ Asset} \right)_j + \beta_3 \text{Log}(MktCap)_j \\
 & + \beta_4 Roe_j + \beta_5 Ros_j + \beta_6 Leverage_j \\
 & + \beta_7 Sector_j + \beta_8 Audit_j + \varepsilon_j
 \end{aligned} \tag{3}$$

Were:

J = number of the groups analyzed.

In order to show the applicability to the dataset of the method of least squares (OLS model) that has been proposed in the paper, and, consequently, to create an appropriate estimator of the regression coefficients  $\beta_i$ , the following main assumption of the OLS model can be made. The first assumption which is implicit in the OLS model is that there is a lack of perfect multicollinearity. The correlation matrix is reported in Table II (in the following page).

As can be seen in Table II there is no correlation between the independent variables. The maximum value of the Pearson Correlation is .317 and it refers to the following independent variable: Sector and Intangible Asset on Total Asset. Thus we can state that there is no significant correlation. The second assumption refers to the presence (absence) of heteroscedasticity (4).

This deduction shows that:

$$\text{Var}(\varepsilon_i) = \sigma^2 \text{ with } i = 1, 2, \dots, n. \tag{4}$$

Where:  $\sigma^2 = \text{Variance}$

The results of the white test are shown in Table III.

TABLE III. WHITE TEST.

Sample size (N)	R Square	Number of Predicotors (P)	Significance level of Chi-square df=P (H0:homoscedasticity)
165	.0530	14	.8474

As can be seen in Table III, testing as null hypothesis the presence of homoscedasticity, the pvalue is .8474, which is higher than .05. Thus we can state that there is the presence of homoscedasticity in the model. Autocorrelation test is not necessary as there is no historical data.

There is no endogeneity (A2): this means that the independent variables and the stocastic error are not correlated. We also tested the presence of outliers and leverage points (Table IV).

TABLE IV. RESIDUAL STATISTICS.

	Min	Max	Mean	Std. Dev.	N
Predicted value	.04896	.174353	.11126	.01510	165
Std. Predicted value	-4.125	4.177	.000	1.000	165
Standard Error of Predicted value	.002	.025	.005	.003	165
Adjusted Predicted value	.03857	1.608931	.12009	.11764	165
Residual	-.0508	.0522986	0E-7	.02430	165
Std. residual	-2.041	2.099	.000	.975	165
Stud. Residual	-2.094	2.133	-.006	1.007	165
Deleted residual	-1.459	.0667533	-.00882	.11668	165
Stud. Deleted residual	-2.117	2.158	-.006	1.011	165
Mahal. Distance	.459	162.908	7.952	19.826	165
Cook's Distance	.000	381.166	2.323	29.673	165
Centered Leverage Value	.003	.993	.048	.121	165

As can be seen in Table IV, the residual standards tend to be distributed within acceptable limits (-2.041, 2.099). Therefore they remain within acceptable significance. Moreover the leverage points are less than  $2 * \frac{(K+1)}{N} = 2 * \frac{(8+1)}{165} = 0.109090$ . There are only 3 cases where the values are higher, and, consequently, they are abnormal values in the independent variables. Finally, the Mahalanobis distance is always less than the chi-squared with 8 degrees of freedom except in six cases. Thus, these results show the absence of significant outlier and leverage points, except for the above-mentioned cases that are not significant values.

#### IV. RESULTS

Table V shows the descriptive statistics of the Dscore of Intangible assets.

TABLE V: MANDATORY DISCLOSURE COMPLIANCE LEVEL

Disclosure Compliance Level %	No	%
Between 0 and 10	10	6.06%
Between 10 and 20	5	3.03%
Between 20 and 30	40	24.24%
Between 30 and 40	90	54.55%
Between 40 and 50	7	4.24%
Between 50 and 60	13	7.88%
More than 60	-	0
<b>Total</b>	<b>165</b>	<b>100</b>
Missing	0	
Mean	0.340	
Median	0.388	
Skewness	-0.37	
Curtosi	0.739	
Minimum	0.015	
Maximum	0.594	

TABLE II. CORRELATION.

		<i>Equity/ intangible</i>	<i>Intangibl e/ Asset</i>	<i>Ln (MktCap )</i>	<i>Roe</i>	<i>Ros</i>	<i>Levera ge</i>	<i>Secto r</i>	<i>Audit</i>
<i>Equity/ intangible</i>	<i>Pearson Correlation</i>	1							
	<i>Sig. (2-tailed)</i>								
	<i>N</i>	165							
<i>Intangible/ Asset</i>	<i>Pearson Correlation</i>	-.065	1						
	<i>Sig. (2-tailed)</i>	.404							
	<i>N</i>	165	165						
<i>Ln (MktCap)</i>	<i>Pearson Correlation</i>	-.018	.139	1					
	<i>Sig. (2-tailed)</i>	.814	.075						
	<i>N</i>	165	165	165					
<i>Roe</i>	<i>Pearson Correlation</i>	.000	.219**	-.028	1				
	<i>Sig. (2-tailed)</i>	.999	.005	.718					
	<i>N</i>	165	165	165	165				
<i>Ros</i>	<i>Pearson Correlation</i>	.008	-.009	-.147	.007	1			
	<i>Sig. (2-tailed)</i>	.923	.908	.059	.924				
	<i>N</i>	165	165	165	165	165			
<i>Leverage</i>	<i>Pearson Correlation</i>	.261**	.076	.003	-.035	.001	1		
	<i>Sig. (2-tailed)</i>	.001	.334	.972	.659	.994			
	<i>N</i>	165	165	165	165	165	165		
<i>Sector</i>	<i>Pearson Correlation</i>	-.170*	.317**	-.107	.014	-.024	.228* *	1	
	<i>Sig. (2-tailed)</i>	.029	.000	.172	.858	.758	.003		
	<i>N</i>	165	165	165	165	165	165	165	
<i>Audit</i>	<i>Pearson Correlation</i>	.025	.133	.290**	.023	.040	-.035	.05 6	1
	<i>Sig. (2-tailed)</i>	.750	.088	.000	.765	.612	.653	.47 2	
	<i>N</i>	165	165	165	165	165	165	165	165

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

TABLE VI. CORRELATION

	<i>Equity/ intangible</i>	<i>Intangible/ Asset</i>	<i>Ln (MktCap)</i>	<b>Roe</b>	<b>Ros</b>	<b>Leverage</b>	<b>Sector</b>	<b>Audit</b>
<b>Type of Variable</b>	Numerical	Numerical	Numerical	Numerical	Numerical	Numerical	Dummy	Dummy Control Variable
<b>N</b>	165	165	165	165	165	165	165	165
<b>Missing</b>	0	0	0	0	0	0	0	0
<b>Mean</b>	319.7295	.0839	12.5870	.1028	.0038862	.3132165	.8182	.8970
<b>Std. Deviation</b>	3548.61038	.11521	2.01924	3.86065	.03033153	.19456849	.38687	.30492
<b>Skewness</b>	12.831	2.196	.266	6.861	11.426	.639	-1.665	-2.636
<b>Std. Error Skewness</b>	.189	.189	.189	.189	.189	.189	.189	.189
<b>Curtosi</b>	164.761	5.421	-.271	102.286	138.223	.242	.782	5.007
<b>Std. Error curtosi</b>	.376	.376	.376	.376	.376	.376	.376	.376
<b>Minimum</b>	-2.88	.00	6.91	-24.19	-.02246	-.04334	.00	.00
<b>Maximum</b>	45610.06	.63	18.10	42.89	.37435	.95468	1.00	1.00

The results show that the quality of the mandatory disclosure is low: the minimum value is 0.015 and the maximum value is 0.594. The mean value is 0.34 and confirms the low quality of disclosure. No groups disclose more than 60% of the information required by IAS 38. 9.09% of the groups analyzed disclose less than 20% of the information required. These are surprising results considering that all the information required is mandatory. The dependent variable is skewed to the left and polarized on flat values (curtosi: 0.739).

Table VI (in the preceding page) reports descriptive statistics for the variables included in the regression models.

The independent variables "Sector" and "Audit" are dummy variables and the latter is a control variable. Table VII reports a synthesis of the Rsquare of the regression model.

TABLE VII. MODEL SUMMARY.

Model	R	R square	Adjusted R square
1	.528 <sup>a</sup>	.279	.242

Predictor: (Constant),  $\frac{Equity}{Intangible\ Asset}$ ,  $\frac{Intangible\ Asset}{Total\ Asset}$ ,  $Log(MktCap)$ , Roe, Ros, Leverage, Sector, Audit

As can be seen,  $R^2$  is equal to .279 which is the acceptable value especially when taking into account the nature of the values of the dependent variables (subjective) and the lack of studies referring to the quality of disclosure regarding the intangible assets. The results of the regression model are reported in Table VIII.

TABLE VIII. RESULTS.

Independent variables		Coefficient
		$\beta_i$
$\alpha$	(Costant)	.056
$\beta_1$	$\frac{Equity}{Intangible\ Asset}$	5,514E-007
$\beta_2$	$\frac{Intangible\ Asset}{Total\ Asset}$	.039**
$\beta_3$	$Log(MktCap)$	.005***
$\beta_4$	Roe	.002***
$\beta_5$	Ros	.106
$\beta_6$	Leverage	.008
$\beta_7$	Sector	-.016**
$\beta_8$	Audit	-.002

\*\*\* Significant  $p < .01$  (two-tailed)

\*\* Significant  $p < .05$  (two-tailed)

As can be seen in Table VIII, the quality of disclosure of intangible assets is influenced by the variables analysed with different intensity. There is a positive association between the quality of disclosure and the weight of the intangible assets on total assets ( $\frac{Intangible\ asset}{Total\ Asset}$ ) ( $p < .05$ ). This means that the higher the weight of the intangible assets the higher the disclosure of the intangible assets. This is consistent with the EFRAG Discussion paper that request companies to disclose only relevant information. Thus, when the weight of intangible assets is low companies have to focus disclosure on the other relevant assets of the financial statement.

With reference to the size variables, market capitalization influences the quality of disclosure ( $p < .01$ ) with a positive association: this means that the larger the size of the company the higher the attitude to disclose information in the notes. This result also proves that smaller companies listed on the Italian stock exchange disclose less information than bigger ones. This represents a weak point in the transparency of the financial statement towards investors and in particular minorities.

ROE, as a performance variable, positively influences the quality of disclosure ( $p < .01$ ): the higher the return on equity of the company, the higher (greater) the attitude to disclose information in the notes. This result underlines that the quality of disclosure depends also on the results of the company: disclosure is complete and transparent when results are positive. When the results are low or negative companies tend to decrease the information disclosed on intangible assets. This is a limit in the disclosure because when results are negative, intangible assets become a critical item of the financial statement due to the risk that the company is not able to recover their amount.

Finally, sector (financial/non-financial) has a negative association on the quality of disclosure of the intangible assets ( $p < .05$ ): financial companies disclose more information than non-financial companies.

## V. CONCLUSION

Disclosure of a financial statement is a key concept for the analysis of a financial statement as it allows investors to understand the application of the accounting principles used by companies. In this context, this research shows that not all the Italian listed groups disclose all the mandatory information required by IAS 38. This is a surprising results because the information analyzed are mandatory and not on a voluntary basis.

With reference to the determinants of the quality of disclosure we identified that the amount of intangible assets on total assets, the size of the company and the return on equity are positively associated to the quality of information disclosed. This means that the disclosure of intangible assets in the notes of the financial statement is influenced by the amount of the investments, the size of the company determined by the capitalization and the capability to create profitability for investors. With reference to the weight of the intangible assets, the results are consistent with the EFRAG Discussion paper that request companies to disclose only relevant information. The regression model also shows that the financial sector has a higher tendency to disclose information on IAS 38.

This paper contributes to the literature by providing empirical evidence on the quality and determinants of mandatory disclosure of financial statements in Italy. Also these results want to be a stimulus both for the entities that must increase the compliance of disclosure and for the analysts who must monitor the transparency of the annual report.

## REFERENCES

- [1] Healy P. M., Palepu K. G., Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature, *Journal of Accounting and Economics*, 2001 (31), 405-440

- [2] Graham J.R., Harvey C.R., & Rajgopal S., The economic implication of corporate financial reporting, *Journal of accounting and economics*, 2005 (40), 3 - 73
- [3] Lambert R., Leuz C., & Verrecchia R., Accounting information, disclosure, and the cost of capital, *Journal of accounting Research*, 2007 (45), pp. 385 -420
- [4] Verrecchia R., Discretionary disclosure. *Journal of Accounting and Economics*, 1983 (5), pp. 179 - 194
- [5] Darrrough M.N., & Stoughton N.M., Financial disclosure policy in an entry Game, *Journal of Accounting and Economics*, 1990 (12), 19 - 243
- [6] Skinner D.J., Why firms voluntarily disclose bad news, *Journal of Accounting research*, 1994 (32), pp. 38 - 60;
- [7] Botosan C.A., Evidence that greater disclosure lowers the cost of equity capital, *Journal of applied corporate finance*, 2000 (12), pp. 60 - 69)
- [8] Devalle A., Rizzato F., The quality of disclosure in the annual report: analysis of different approaches, *Business Review: Advanced Applications*, Cambridge Scholars Publishing, 2013, p. 87-105
- [9] Robba W.G., Singleb E., Zarzeskic T., Nonfinancial disclosures across Anglo-American countries, *Journal of International Accounting, Auditing & Taxation* 10 (2001) 71-83
- [10] Marston C. L., Shrivs P. J., The use of disclosure indices in accounting research: a review article, *British Accounting Review*, 1991 (23), pp. 195 – 210
- [11] Boyatzis, R.E., Transforming qualitative information: thematic analysis and code development, Thousand Oaks, CA: Sage Publications, 1998
- [12] EFRAG (2012), Discussion Paper – Towards a Disclosure Framework for notes
- [13] Copeland R.M. & Fredericks W., Extend of disclosure, *Journal of Accounting Research*, Spring, 1968, pp. 106 - 113
- [14] Mautz R.K. & May W.G., Financial disclosure in a competitive Economy, New York, Financial Executive Research Foundation, 1978
- [15] Nair R.D. & Frank W.G., The impact of disclosure and measurement practices on international accounting classification, *Accounting Review*, 1980, pp. 426 - 450
- [16] Gray S.J., McSweeney L.B., Shaw J C, Information disclosure and the Multinational Corporation, Chichester, John & Sons ,1984
- [17] Hassan O. PP., Marston C., Disclosure measurement in the empirical accounting literature - a review article, 2010
- [18] Devalle A., Rizzato F., Fair value application and disclosure of investment properties (IAS 40) An empirical analysis of European listed companies, *GSTF Business Review (GBR)*, Volume 1, n. 1, 2011
- [19] Devalle A., Rizzato F., The impairment test of goodwill and the quality of mandatory disclosure required by IAS 36, *GSTF Business Review (GBR)*, Volume 2, n. 1, 2012
- [20] Singhvi S., Characteristics and implications of inadequate disclosure: a case study of India, *The International Journal of Accounting*, 1968
- [21] Singhvi S., Desai H., An empirical analysis of the quality of corporate financial disclosure, *The Accounting Review*, 1971
- [22] Stanga K.G., Disclosure in published annual reports, *Financial Management*, 1976
- [23] Coy D., Tower G., Dixon K., Quantifying the quality of tertiary education annual reports, *Accounting and Finance*, 1993, pp. 121–130, 1993
- [24] Wallace R.S.O., Naser K., Mora A., The Relationship Between the Comprehensiveness of Corporate Annual Reports and Firm Characteristics in Spain." *Accounting and Business Research*, 1994
- [25] Chen, C.J.P., Jaggi, B., Association between independent non-executive directors, family control and financial disclosures in Hong Kong , *Journal of Accounting and Public Policy*, 2000
- [26] Street D., Bryant, S., Disclosure level and compliance with IASs: a comparison of companies with and without US listings and fillings, *International Journal of Accounting*, 2000
- [27] Ho S., Wong, K.S., A study of the relationship between corporate governance structures and the extent of voluntary disclosure, *Journal of International Accounting, Auditing & Taxation*, 2001
- [28] Bujaki M., McConomy B.J., Corporate governance: factors influencing voluntary disclosure by publicly traded Canadian firms , *Canadian Accounting Perspectives*, 2002
- [29] Prencipe A., Proprietary costs and determinants of voluntary segment disclosure: evidence from Italian listed companies, *European Accounting Review*, 2004
- [30] KPMG, Disclosure checklists, 2011
- [31] Cooke T.E., Disclosure in the corporate annual reports of Swedish companies, *Accounting and Business Research*, 1989
- [32] Inchausti B.G., The Influence of Company Characteristics and Accounting Regulation on Information Disclosed by Spanish Firms, *The European Accounting Review*, 1997
- [33] Hodgdon C., Tondkar R. H., Harless D. W., Adhikari A., Compliance with IFRS disclosure requirements and individual analyst' forecast errors, *Journal of international accounting, auditing and taxation*, 2008
- [34] Cerf A.R., Corporate Reporting and Investment Decisions, Berkely, Cal.: University of California Press, 1961
- [35] Abd-Elalam O. H., Weetman P., Introducing International Accounting Standards to An Emerging Capital Market: Relative Familiarity and Language Effect in Egypt, *Journal of International Accounting, Auditing & Taxation*, Vol. 12, 2003, pp. 63-84
- [36] Akhtaruddin M., Corporate mandatory disclosure practices in Bangladesh, *The International Journal of Accounting*, 2005, pp. 399–422
- [37] Ali J.M., Ahmed K., Henry, D., Disclosure compliance with national accounting standards by listed companies in South Asia, *Accounting and Business Research*, 2004
- [38] Al-shammari B., Brown P., Tarca A., An investigation of compliance with international accounting standards by listed companies in the Gulf Co-operation Council member states, *The international journal of accounting*, 2008
- [39] Tsalavoutas I., Transition to IFRS and compliance with mandatory disclosure requirements: What is the signal? *Advances in Accounting, incorporating Advances in International Accounting*, 2011
- [40] Wallace R.S.O., Disclosure of Accounting Information in Developing Countries: A Case Study of Nigeria, *Doctoral Dissertation*, University of Exeter, Devon: A Case Study of Nigeria, *Doctoral Dissertation*, University of Exeter, 1987
- [41] Raffournier B., The determinants of voluntary financial disclosure by Swiss listed companies, *European Accounting Review*, 1995
- [42] Hossain M., The Extent of Disclosure in Annual Reports of Banking Companies: The Case of India, *European Journal of Scientific Research*, pp. 659 – 680, 2009

- [43] Cooke, T.E., An assessment of voluntary disclosure in the annual reports of Japanese corporations, *The International Journal of Accounting*, 1991
- [44] Cooke T.E., The impact of size, stock market listing and industry type on disclosure in the annual report of Japanese corporation, *Accounting and Business research*, 1992
- [45] Archambault J.J., Archambault M.E., A multinational test of determinants of corporate disclosure, *The International Journal of Accounting*, 2003
- [46] Gray S.J., Reporting Intangible Assets: Voluntary Disclosure Practices of Top Emerging Market Companies, *The International Journal of Accounting*, 2011
- [47] Glaum M., Baetge J, Grothe A., Oberdörster T, Brüggemann U., Hitz J.M., Sellhor T., Intended and Unintended Consequences of Mandatory IFRS Adoption: A Review of Extant Evidence and Suggestions for Future Research, *European Accounting Review*, 2013
- [48] Gerpott, Thomas, Hoffmann, *Journal of Intellectual capital, Intangible asset disclosure in the telecommunications industry*, vol 9., no 1., 2008, pp 37-61, 2008

Prof. Alain Devalle, Ph.D. is Assistant Professor, University of Turin, School of Management and Economics, Italy. He is reachable at [alain.devalle@unito.it](mailto:alain.devalle@unito.it).

Prof. Fabio Rizzato, Ph.D. is Assistant Professor, University of Turin, School of Management and Economics, Italy. He is reachable at [fabio.rizzato@unito.it](mailto:fabio.rizzato@unito.it).