
Empirical Research on Identifying Main Drivers Leading to Integrated Reporting Framework Implementation. The case of European Region

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Abstract

Deterioration of information disclosed through financial statements among the last decade, especially in the light of the recent global financial crisis has determined shareholders and stakeholders as well to find out a complementary solution that would provide more reliable information, relevant for resources allocation. Also, as the need of appropriation between accounting result and corporate finance result has been frequently claimed for years, the value creation potential has won an increasing role on identifying suitable financial and non-financial metrics that measure the efficiency and efficacy of management strategic policies. Integrated reporting framework is an alternative solution to the existing corporate reporting model. The focus on the strategic view of the result, on the process and function-based analysis of the results, or the idea of an institutional continuous process of communication of managers with the shareholders and stakeholders as well, have determined an increasing number of entities to implement IIRC reporting framework voluntary. This article is aimed to find some answers concerning the main drivers that determine entities to adopt voluntary integrated reporting framework proposed by IIRC on December 2013. The study is aimed to analyze firm-level factors and country-level factors considered on IIRC framework adoption decision as well, starting from stewardship theory, stakeholder theory and institutional perspective.

Keywords: corporate reporting, integrated reporting, IIRC, value creation, logit regression

JEL Classification: G32, M40, M49, Q01

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1. Introduction

In the last two decades they have been raised lots of question marks concerning the way of the managers creating value added along the entire supply chain of the entities they manage. If management models, revealed until now, seem to be successfully implemented considering specific firm-level factors (van Assen et. al., 2009), they are still vivid discussions around the need and opportunity for financial communication process optimization with focus on value creation drivers and distribution.

Not far by now, information regarding value added creation was disclosed mainly through the annual report, with main focus on financial statements content. Unfortunately, the trust of investors on information disclosed by financial statements has deteriorated, especially in the light of the recent financial crisis, as there are voices that claim accounting system is one of the main drivers. Moreover, there are recent studies showing that, despite the considerable efforts of international accounting convergence done by main accounting standard-setters, international accounting differences persist, as a consequence of either country-level factors, or firm-specific factors (Hellman et. al., 2015; Nobes, 2015; Lourenco et.al., 2016).

This reality has led to a new approach on the financial communication process, the shareholders and the stakeholders as well becoming more interested on a wider financial reporting approach. In order to restore shareholders and stakeholders trust on the financial statements, in the last decade has been argued the opportunity of moving towards a more corporate reporting, than a financial reporting, meaning a clear trend of increasing non-financial information on the content of the annual report published by entities, especially entities listed on a capital-market, or transnational entities. This move has been translated into an increasing financial transparency, an improved supply chain financial reporting actors' accountability and a high level of people integrity (DiPiazza & Eccles, 2002). But all alternative corporate reporting frameworks were focusing especially on CSR aspects, sustainability considerations and financial topics, presented on a disconnected way, without focus on value creation, or on the main drivers of continuous processes improvement (Eccles & Krzus, 2010; Adams, 2013).

Integrated reporting represent a brand new alternative to existing corporate reporting solutions, which promote a focus, not only on information needs of the shareholders, but on the information needs of different stakeholders as well. Moreover, as Eccles & Serafeim (2014) sustain, integrated reporting model does not only focus on revealing integrated relevant information on investment and financing process, but also give the opportunity to managers to align their strategies closer to

shareholders expectation (shareholders engagements). This way the too long debated objective of stewardship in financial reporting can be solved. Its philosophy circle around the need of disclosing relevant and complete information regarding value creation model, seen as the main output an entity should achieve through its operating, financial and investment decisions.

Despite all of these advantages, the regulators (except South Africa case) do not show willing to transform IIRC framework in mandatory corporate reporting requirements, even in case of entities listed on capital markets, mergers and acquisitions, or entities publishing IPOs. This is why the decision of adopting integrated reporting framework is voluntary, the only element of pressure coming from capital markets voice.

On this article, the main propose of the research is to check the main drivers of adopting voluntary IIRC reporting framework, starting from stewardship theory, stakeholder theory and agency theory. We will analyze a samples of European entities that are referred by IIRC as entities adopting integrating reporting framework, or basing their annual report presentation on IIRC framework principles, concepts or content elements. Our aim is to figure out future evolution of IIRC reporting framework and what changes this model of reporting will determine, once it will become mandatory, even only for small area of application.

2. Literature review

The topic of the main drivers leading to a regional, and why not, a global adoption, has been discussed few until now. Firm-level factors and country-level factors as well were analyzed in relation with entities' position towards <IR> framework implementation. But, as integrated reporting is, regularly, a voluntary reporting framework, it is expected that firm-level drivers to be more important, country-level drivers being responsible only to ensure the basic premises for a positive trend towards <IR> framework adoption.

Serafeim (2015) achieve to test a positive relation between investor composition and integrated reporting, confirming <IR> framework is more attractive to strategic investors. But the intensity of this relation is moderated significantly by control factors such as firm growth opportunities and management disclosure commitment.

Jensen & Berg (2015) instead, figure out that integrated reporting quality and sustainability reporting quality differ between and within countries, especially under the influence of some country-level determinants as the investor and employment protection laws, market coordination intensity, the level of economic, environmental and social development, the degree of national corporate responsibility or the system of values of the country of origin. That is why we should

understand that expected positive effects from integrated reporting can be obtained only on some specific institutional and macroeconomic circumstances. In the end, investors' behavior does not depend only on firm characteristics, but on aggregated country factors as well.

Same as Jensen & Berg (2015), Frias-Aceituno et. al. (2013) analyze reports of some Forbes Global 2000 entities, finding out that the movement toward integrated reporting is highly related to the legal system of the country of origin and the degree of enforcement of regulations. Thus, they realize that companies from countries with civil law system and a high degree of regulation enforcement index, are more likely to prepare integrated reports. Indeed, as civil law systems are well-known as influencing accounting regulation with rigid accounting framework, entities choose to improve communication with shareholders and stakeholder, through an integrated report with high flexible format and content, leading to a higher level of financial transparency and avoidance of potential litigation costs.

Moreover, Garcia-Sanchez et. al. (2013) have underlined the importance of cultural dimension, defined on a country level, emphasizing the positive relation between positive perception in favor of integrated reporting and stronger collectivist and feminist values of the society.

Another important study is Churet & Eccles (2014) research paper that reveal entities managing proactively the risks and opportunities concerning social and environmental issues prefer to go toward an integrated reporting way on communication with the shareholders and stakeholders, with differences encountered on industry level. This actually oversee the fear of some who believe that an integrated report can be easily transformed in a powerful tool of marketing communication (Dumitru et. al., 2015).

In this direction, we would expect that entities with a lower information environment that will adopt <IR> framework, should be the ones that will get major benefits compared to the ones adopting <IR>, but with already existing high information environment, as was in case of IFRS adoption. But Martinez (2015) proves that actually the entities with a higher information environment are the ones following more closely <IR> framework. This can just underline again the power of integrated reporting seen as a marketing instrument for the management. The same study contradict the result of Serafeim (2015) concerning ownership structure influence, resulting that there is shown a relatively small reduction on information asymmetry degree, but without ownership structure gap. This relative reduction on information asymmetry⁴ is explainable as even Steyn (2014) outlined the fact that managers can align corporate reporting to <IR> framework only in order to

⁴ <IR> framework adoption impact on bid-ask spread evolution

increase their reputation and consolidate entities' image in front of the investor. Indeed, IIRC admits this reality as managers still have large area of judgment concerning disclosing strategic information and forward-looking information, because they claim potential litigation costs and risk to lose companies' competitive advantage.

3. Sample and methodology research

With this study we try to continue expand existing literature concerning the main drivers of integrated reporting framework adoption. As shown in the previous section, the main part of existing studies has focused the analysis towards a really limited sample, namely entities listed on Johannesburg capital market, as South Africa is the only jurisdiction asking mandatory annual report compliance with <IR> framework.

In the construction of our sample we have started from the entities included on IIRC database, containing currently 385 entities that declared their annual reports are prepared complying with <IR> framework, or at least is referring to some of its principles, concepts and elements of the content of an integrated report.

Our study is limited to European entities from this database.

Tabel 1 <i>IIRC database entities</i>		Table 2 <i>Europe entities on IIRC database</i>		
Region	Entities number	Listing status	Number of entities	%
Africa	150	not listed	25	28.41%
Asia	103	international listing	29	32.95%
Europe	88	domestic listing	34	38.64%
Australasia	19			

Source: own analysis and projection

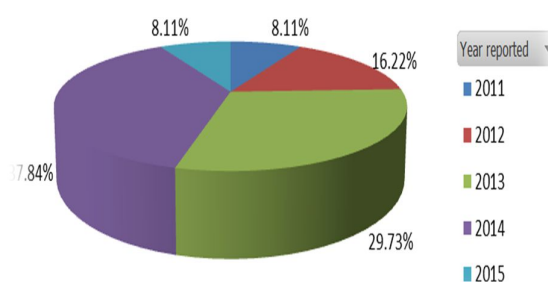
In order to avoid the situation entities declare they have published integrated reports, we have analyzed if they comply with <IR> framework, or just refer to it along the annual report. In Graph 3 can be seen clearly that, most of the entities choose for the moment to implement only partially <IR> framework, reasons behind being already discussed in previous sections.

Interesting in the light of this situation are the conclusions of Wild & van Staden (2015) study that show the entities publish rather lengthy than concise integrated reports, being unable to align with <IR> guiding principles, content elements and the need of the capitals business model. The first integrated reports disclose information only on four of the six capitals mentioned in the value-creation business model of <IR> framework, dominant information being the financial segment information, rather than social and environmental information.

But, there is a positive perspective created around the aim of adopting <IR> framework, at least when we look to studies like the one of Havlova (2015), which underline the fact an integrated report lead companies to a decrease of other disclosures, as all information, will help of IT technology, is integrated easily and with a clear logic in one report.

The sample was limited only to listed European entities to show the state of art on a regional perspective of integrated reporting trend, meaning we have continued with a number of 63 entities, from the total of 88 entities. For those 63 entities, we have first checked the first integrated report published by each one. This way we have figure out what information we had to collect concerning the main drivers leading to <IR> framework adoption, in case of the firms that have already taken this decision. In case of the firms just using <IR> framework as a reference to their annual reports, we will consider for the firm-level factors the information corresponding to 2015 financial exercise reported on 2016.

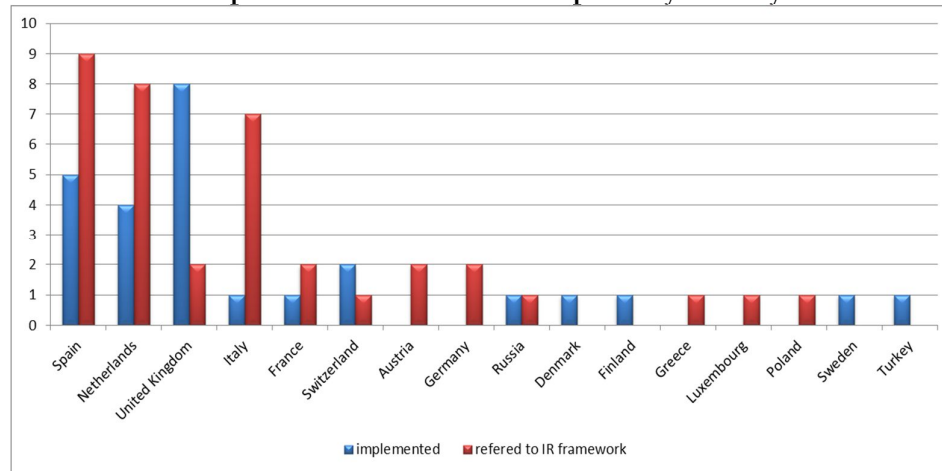
Graph 1. Distribution of firm implementing <IR> framework



Source: own analysis and projection

It is obvious from *Table 3* that most of included companies are services area (financial & professional services) and industry. The predominance of financial information in the reports is justified in case of financial services firms, while industrial firms will mostly get oriented towards segment and environmental information. That is why integrated reports will differ significantly from one firm to another, or between different areas of operations.

Graph 2. <IR> framework adoption by country



Source: own analysis and projection

The empirical research in the study is based on testing the following Hypothesis:

- H1: Ownership concentration influence IR adoption decision
- H2: Economic firm-level factors influence IR adoption decision
- H3: Financial reporting quality of the country model influence IR adoption decision
- H4: *Institutional country-level framework influence IR adoption decision*

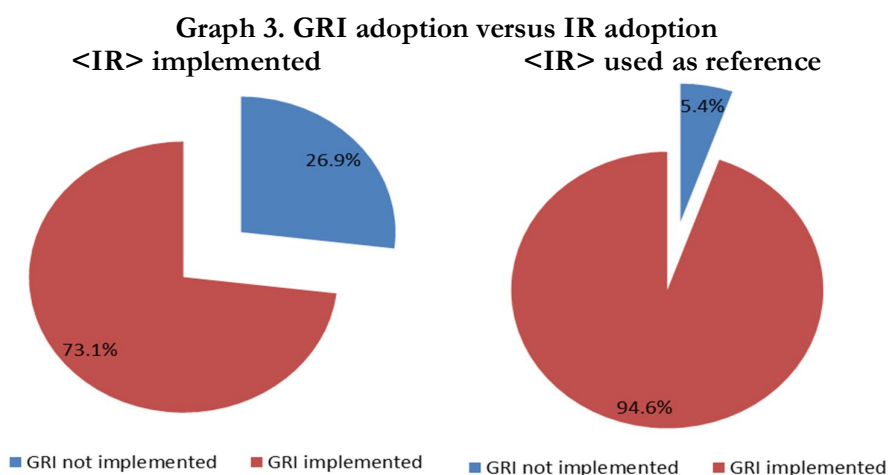
Table 3. IR versus GRI framework adoption

Sector	IR implemented		Referred to <IR> framework		Total
	GRI not implemented	GRI implemented	GRI not implemented	GRI implemented	
commerce	1	2	0	0	3
construction	1	0	0	4	5
financial services	1	3	1	8	13
industry	0	7	1	9	17
logistics	0	0	0	1	1

natural resources				
exploration	2	1	4	7
professional services	1	5	2	8
tourism		1		1
utilities	1		7	8

Source: own analysis and projection

The dependent variable is a *dummy* variable that take value 1 if a firm has adopted IR, or 0 if IR was implemented just partially in the annual report.



Source: own research and projection

It is really important to observe, as shown in Graph 2, that firms is a general trend that firms not implementing GRI, for sustainability reporting, chose directly to adopt <IR> framework. This would not be the way recommended by IIRC, as integrated reports are not aimed to replace sustainability reports, but just to complement them together with the financial reports.

By firm-level factors, we mean in this study to ownership concentration, analyst coverage and the economic drivers, namely ROE (an accounting-based KPI) and PER.

We have chosen *ownership concentration* as a variable in the model (variable *SD*), as integrated reporting can reveal a higher degree of transparency to all shareholders and stakeholder, not only the ones having majority in the Board. Leuz & Wysocki (2016) underline the importance of the economics of financial reporting, including

the pressure shareholders put on the managers, in order the moral hazard effects to be diminished. This means, managers have to be more transparent in their decisions and their accountability has to be properly documented through different forms of corporate reporting. For this we have considered the summed percentage of shareholders having less than 5% ownership on a firm. It is expected a positive correlation with the resulted variable, as a higher level of shareholders diversity would imply a higher probability of <IR> framework adoption, because integrated reports reveal a high level of trust and transparence in financial statements.

The *business model* variable (BM) reflect the business model complexity, with high impact on financial statements intelligibility. Even if this is not a fundamental characteristic according to IFRS Conceptual Framework, in terms of corporate reporting it become essential in case of transnational companies. Integrated reports can provide to shareholders and other stakeholders relevant information about financial impact of business complexity and how it can bring value added for the company, reason why we expect a positive correlation between the degree of business complexity and the probability a company chose to adopt <IR> framework. This degree has been set up as the Forbes ranking of the companies considered on our sample, as it is a combination of five aspects, namely sales, profits, assets, market value, and employees. We would expect a higher business model complexity will require more the need for integrated reporting, rather the situation of a more simply business model. This ranking, in order to transform into a stationary series, we have legitimized the value.

Foreign listing variable (FL) is considered on this equation, as we can underline the connection between the opportunity of <IR> framework adoption and the diversity of requirements a company expect once it decide to list, not only on local capital markets, but on capital markets from other countries as well. Thus, a company is asked for various listing requirements on the German capital market, while SEC is asking for much more requirements if the company want to be listed on American capital markets as well. Considering this, an integrated reporting approach can provide at once, answers to a wider range of investors and stakeholders, not only to a limited local industry group of users of financial reports. The <IR> framework is designed as a principle-based corporate reporting framework that exceed any geographical border, concentrating only on business orientation.

The *economic drivers* were considered in order to test if it is true that managers adopt IR framework only if they have positive results and want to sell this information to the users of the report. *ROE* is a relevant key performance indicator, which we want to test if it has an impact on the probability a company adopt <IR> framework. Our expectation is that companies with positive ROE (rate of return on equity) are more willing to adopt <IR> framework, than the ones reporting a negative result,

because <IR> framework is supposed to give a more detailed situation of the financial situation. For us is awkward, as managers can use <IR> reporting as a strong marketing tool, by explaining the negative results in the economic / political / social context the company is, using different well-known narrative disclosure techniques (Jones, 2011).

Those explanatory variables are extended with a variable indicating the role of capital markets as incentive generators in favor of <IR> adoption. This way we will try to check capital market role, through the company market capitalization, reflect on the *P/E (PER) ratio*. It is obvious that a better financial transparency on the capital markets bring significant cost savings to companies, by reducing the cost of agency and the negative effects of financial asymmetry (Leuz & Wysocki, 2016). <IR> framework philosophy consist exactly on promoting a higher financial transparency and placing the financial results into a wider business context. That is why we expect a more developed capital market (higher capitalization of a capital market) promote even more intensively <IR> framework adoption, than a relatively isolated local capital market.

The analysis is oriented as well to check institutional country factors on ensuring a favorable environment for IR adoption. In this direction we are using World Bank database, filtering information regarding market capitalization ratio on the GDP that shows capital markets role on configuring corporate reporting model, firms' transparency index that reflect cultural background of the environment, investor protection and shareholders governance that give relevant clues regarding juridical system of the country of origin of each firm analyzed.

Separately we try to check country-level financial reporting quality and if this has a significant influence on IR adoption, because in the literature many researchers underline the fact that a higher financial information environment is more likely to determine firms to publish an integrated report, transforming the report into a powerful marketing tool for managers. On the other side, low country-level quality of financial reporting will not determine a voluntary <IR> adoption, especially because of higher risk of litigation costs and of losing the competitive advantage.

The *financial reporting quality* index (FRQ), considered from Tang et. al. (2012) study, is a composite or various financial key performance indicators, calculated on a country level, based on a big sample of companies. This indicator is mainly measuring the accuracy and relevance of information disclosed by financial statements, by analyzing the accruals quality. We expect for a positive correlation with the probability a company, operating in such a national economy, will decide to adopt <IR> framework, as the local industry is already configured to follow a path towards competitive economic activities, without financial information

manipulation. This factor can reflect fairly the practice already set up at industry level, which is mainly followed in conjunction with the legal regulation in place.

Financial transparency (FT) considering countries' Hofstede cultural dimensions ranking (uncertainty avoidance dimension), is essential on setting up a pre-defined companies' behavior in terms of how transparent the company is with its shareholders and stakeholders. That is why, we expect only the companies willing to behave transparently will easily decide in favor of <IR> framework adoption, with the remark the costs constraints remain the main factor of every company.

Market capitalization (MC) is fundamental on describing the level of development for a country. But a positive evolution of a local capital market is highly dependent on financial transparency of listed companies, reason why we expect <IR> framework will be promoted by capital markets regulators, especially in case of the markets with high international capitalization.

As a consequence of national regulation in the area of investors' protection, an economy can develop continuously and rapidly. But the main condition is this regulation to be optimal for the economic context of a country. In the end, it is obvious that financial transparency premise is a gain that every actor in the economy will feel in its financial results, directly or indirectly. This is way, we expect a positive correlation between <IR> framework adoption probability and the *investor protection* indices (IP) World Bank is calculating. Through an integrated report, every investor and stakeholder can find out relevant information about how their investment legal rights are secured, not only by economic uncertainty, but also by any potential country institutional changes, like change of law, change of political climate etc.

The *shareholder governance* index (SG) was considered as it is a composite indices reflecting the extent of shareholder rights index, strength of governance structure index and the extent of corporate transparency index. This indices is much more oriented on the environment set up on a national level for the corporate governance, compared to the investors' protection index. But we expect the same this measure is positively correlated with the probability of <IR> framework adoption on a company level.

All those country-level dimensions are aimed, in the end, to create a macroeconomic favorable environment for high financial transparency and rule of law. This is way, all of them can create a proper background for managers to choose in favor of <IR> framework adoption.

In order to check how those drivers influence <IR> adoption decision, we will use a logit model to check how the probability an entity will adopt <IR> will be affected by change on the above mentioned drivers, on different levels, as reflected by our

hypothesis clear formulation. The marginal analysis on R^2 evolution between models is essential to give some answers regarding the intensity of a factors on <IR> framework adoption.

Gujarati (2004) defines the logit model through the equation

$$P_i = E\left(y = \frac{1}{x_i}\right) = \frac{1}{1+e^{-(\beta_0 + \sum \beta_j \cdot x_j)}}$$

which may be given as a rate expressing the chance in favor of adopting IAS / IFRS

by country, by the following relationship $\frac{P_i}{1-P_i} = \frac{e^{z_i}}{1+e^{z_i}} = e^{z_i}$, where we noted $z_i =$

$\beta_0 + \sum \beta_j \cdot x_j$. We used the following notions: z is the dummy variable, x_j is factor j considered in the econometric analysis, j is the number of index of the factor included in the model, i is the number of the firm considered on the analysis.

In our study they will be used following econometric models:

$$\text{Model 1: } z_i = \frac{1}{1+e^{-(\text{Constant} + \beta_1 \cdot SD + u_i)}}$$

$$\text{Model 2: } z_i = \frac{1}{1+e^{-(\text{Constant} + \beta_1 \cdot SD + \beta_2 \cdot FI + \beta_3 \cdot BM + \beta_4 \cdot PER + \beta_5 \cdot ROE + u_i)}}$$

$$\text{Model 3: } z_i = \frac{1}{1+e^{-(\text{Constant} + \beta_1 \cdot FRQ + \beta_2 \cdot FT + u_i)}}$$

$$\text{Model 4: } z_i = \frac{1}{1+e^{-(\text{Constant} + \beta_1 \cdot FRQ + \beta_2 \cdot FT + \beta_3 \cdot MC + \beta_4 \cdot IP + \beta_5 \cdot SG + u_i)}}$$

Through linearization of this model we obtain the equation $\ln\left(\frac{P_i}{1-P_i}\right) = z_i = \beta_0 + \sum \beta_j \cdot x_j + u_i$, where u_i is the residual variable of the model. In order to determine the probability generated by a specific value of the independent variable z_i , we use the relationship $P_i = \frac{e^{z_i}}{1+e^{z_i}}$.

To check the robustness of the models, we will proceed to a linear regression (linear probability model) as well, as defined by Gujarati (2004), in order to double-check the statistical significance of the considered variables. In this direction we will use the following models:

$$\text{Model 5: } z_i = \text{Constant} + \beta_1 \cdot SD + u_i$$

$$\text{Model 6: } z_i = \text{Constant} + \beta_1 \cdot SD + \beta_2 \cdot FI + \beta_3 \cdot BM + \beta_4 \cdot PER + \beta_5 \cdot ROE + u_i$$

$$\text{Model 7: } z_i = \text{Constant} + \beta_1 \cdot FRQ + \beta_2 \cdot FT + u_i$$

$$\text{Model 8: } z_i = \text{Constant} + \beta_1 \cdot \text{FRQ} + \beta_2 \cdot \text{FT} + \beta_3 \cdot \text{MC} + \beta_4 \cdot \text{IP} + \beta_5 \cdot \text{SG} + u_i$$

In case of multiple factors econometric analysis, we will proceed to a principal components analysis as well, so we can understand each factor influence on the variations concerning <IR> framework adoption decision. On the same line of research we do a correlation check between firm-level factors and country-level factors, in order to check if proposed models are described by multicollinearity.

The data are analyzed on Microsoft Excel environment, while econometric analysis and distribution is done with Eviews 7.0.

4. Results and discussion

The results of the empirical research show statistical significance are in the line with already existing literature, either we discuss about theoretical analysis, perception analysis, or empirical studies.

Table 4. Descriptive statistics on main firm-level drivers of <IR> adoption

	<IR> framework implemented					<IR> framework not implemented				
	Shareholder diversity	Foreign listing	Forbes ranking	PER	ROE	Shareholder diversity	Foreign listing	Forbes ranking	PER	ROE
Mean	0.584	0.324	6.03	27.8	0.013	0.733	0.654	6.24	15.9	0.183
Maximum	1.000	1.000	7.4	450	0.339	1.000	1.000	7.5	103	0.805
Minimum	0.000	0.000	4.01	-33.5	-1.586	0.108	0.000	3.99	-2.2	-0.060
Std. Dev.	0.336	0.475	0.989	90.83	0.303	0.255	0.485	0.927	25.31	0.198
Skewness	-0.407	0.783	-0.440	4.74	-4.57	-0.899	-0.687	-1.064	2.22	2.41
Kurtosis	-1.136	-1.470	-0.668	22.94	24.04	0.009	-1.662	0.987	5.66	6.09

Source: calculation with Excel 2010

Table 5
Panel A: firm-level integrated reporting drivers (LPM regression) – robustness check

Explanatory Variables	Single factor model (model 5)				Multiple factor model (model 6)			
	N	R ²	F-stat	Prob F-stat	N	R ²	F-stat	Prob F-stat
		61	5.72%	3.581	6.33%	32	39.86%	3.446
	B	S.E.	t-Stat	Sig.	B	S.E.	t-Stat	Sig.
Constant	0.82	0.15	5.65	0.00%	1.93	0.80	2.39	2.42%
Shareholders diversity (SD)	-0.38	0.20	-1.89	6.33%	0.29	0.44	0.65	52%
Foreign listing (FL)					-0.46	0.17	-2.65	1.36%

Business model (<i>BM</i>)					-0.20	0.10	-1.99	5.73%
P/E ratio (<i>PER</i>)					0.00	0.00	-1.06	30.08%
ROE					-1.00	0.42	-2.37	2.5%

Source: calculation with Eviews 7.0

The firm-level factors we have considered show a low degree of risk of multicollinearity, as is shown in the correlation and covariance matrix below. There might be considered only the correlation between shareholder diversity and the foreign listing status, but those factors do not exclude with each other because one reflects each shareholder decision power, while listing status explain just firm exposure on different markets investor behavior.

There is also a slightly high negative correlation between ROE and business model complexity, which is explainable because of the higher fixed costs an entity support, especially because of country-level institutional factors.

Table 6
Multicollinearity analysis of firm-level factors

	<i>Correlation Analysis</i>				<i>Covariance Analysis</i>			
	Business model	Foreign listing	P/E ratio	ROE	Business model	Foreign listing	P/E ratio	ROE
Business model (<i>BM</i>)	1				0.744			
Foreign listing (<i>FL</i>)	-0.186	1			-0.080	0.249		
P/E ratio (<i>PER</i>)	0.088	0.055	1		1.567	0.567	422	
ROE	-0.235	0.066	0.011	1	-0.038	0.006	0.043	0.034
Shareholder diversity (<i>SD</i>)	-0.371	0.485	0.109	0.057	-0.068	0.051	0.474	0.002

Source: calculation with Eviews 7.0

Econometric models mentioned below reveal a significant influence of ownership concentration, only with a level of significance of 6.82% in case of Model 1. As shareholders concentration is lower, the probability an entity to adopt <IR> framework is higher. But Model 1 present just a 4.41% relevance, while Model 2 is more relevant, with an R2 of 43.69%, including additionally to shareholder diversity variable also the economic variables like foreign listing status, business model complexity, PER value, or ROE value.

In Model 2 case we can observe that ownership concentration variable is not significant anymore as it is confirmed with a really high level of significance, meaning about 65%. This is actually rejecting H1 hypothesis, as ownership composition variable is not a main driver on deciding to adopt or not <IR> framework. The situation is similar in case of econometric models estimated for robustness check, either we talk about model relevance, or significance of SD coefficient.

Tabel 7

Explanatory Variables	Single factor model (model 7)					Multiple factor model (model 8)						
	N	R ²	F-stat	Prob F-stat	N	R ²	F-stat	Prob F-stat	N	R ²	F-stat	Prob F-stat
	B	S.E.	t-Stat	Sig.	B	S.E.	t-Stat	Sig.	B	S.E.	t-Stat	Sig.
Constant	1.79	0.40	4.49	0.00%	-0.49	1.49	-0.33	74.14%				
Financial reporting quality (FRQ)	-0.03	0.01	-2.69	0.94%	0.01	0.02	0.29	77%				
Transparency (FT)	-0.02	0.02	-0.86	39.23%	-0.07	0.03	-2.08	4.26%				
Market capitalization (MC)					-0.60	0.24	-2.48	1.65%				
Investor protection (IP)					-0.01	0.11	-0.11	91.04%				
Shareholders governance (SG)					0.36	0.37	0.99	32.7%				

Source: calculation with EViews 7.0

Tabel 8

Explanatory Variables	Single factor model (model 3)					Multiple factor model (model 4)				
	N	McFadden R ²	LR stat	Prob LR stat	Total Variance Explained	N	McFadden R ²	LR stat	Prob LR stat	Total Variance Explained
	B	S.E.	z-Stat	Sig.	% of Variance	B	S.E.	z-Stat	Sig.	% of Variance (cumulated)
Constant	5.79	2.01	2.88	0.40%	-	-7.10	6.41	-1.11	26.78%	
Financial reporting quality (FRQ)	-0.13	0.05	-2.48	1.32%	47%	0.06	0.07	0.84	40%	47%
Transparency (FT)	-0.08	0.10	-0.81	42.05%	31%	-0.34	0.18	-1.87	6.12%	79%
Market capitalization (MC)					17%	-2.55	1.16	-2.19	2.85%	95%
Investor protection (IP)					3%	0.38	0.53	0.71	47.55%	98%
Shareholders governance (SG)					2%	0.67	1.17	0.54	58.76%	100%

In case of the additional variables, in Model 2 and Model 4 as well, there is revealed a negative influence on the probability a firm will adopt <IR> framework.

In case of FI variable it can be explained by the fact that only in some countries there is a clear increasing trend of adopting <IR> framework, as is the case of Spain, Netherlands, or United Kingdom, as show in Graph 1.

The statistics describe a pattern for <IR> framework that shows a trend of firms with lower financial results (ROE) to transform the integrated report on a powerful marketing instrument ($\beta_{ROE} = -15.62$, $p_{\beta_{PER}} = 3.2\%$). This way, managers can try to reveal information in a way that shareholders and stakeholders to understand the reasons behind the bad results. This is called, in the narrative reporting literature, as a technique of impression management, by which the good results are attributed to managers decision and bad results are associated with external environment influence on the business model (Jones, 2011). On the other side, capital market seem not to be able to generate enough incentives for the managers to convince them to adopt <IR> framework ($\beta_{PER} = -0.06$, $p_{\beta_{PER}} = 27.32\% \gg 5\%$, considered as acceptable significance level).

The situation is similar in case of econometric models estimated for robustness check, either we talk about model relevance, or significance of each considered factor coefficient (Model 5, Model 6). Even if it is a low marginal difference between PLM models and logit models, it should be enlighten, as we discuss about a change from 4.41% to 5.72% in case of single factor models, or a change from 43.69% to 39.68% in case of multiple factor models. This actually confirm our choice for the logit model as it explain better the amplitude of each factor considered on taking the decision to adopt <IR> framework, especially when we talk about multiple factor analysis.

In case of country-level factors, we should notice the negative influence of transparency index on <IR> framework adoption decision ($\beta_{FT} = -15.62$, $p_{\beta_{FT}} = 3.2\%$). This can be justified through the fact that, once in case of a country there is already developed a culture of high transparency, the firms would not get any significant additional benefits by disclosing an integrated report also, because they already disclose enough information for investor to take correct decisions.

But is essential to understand that, even a firm is characterized with a high financial reporting framework, an integrated report would mean also sustainability information. This is explained by R2 evolution from Model 3 to Model 4 (from 11.31% to 19.49%, as the capital markets have an essential role on corporate reporting configuration ($\beta_{PER} = -2.55$, $p_{\beta_{PER}} = 2.85\%$). The only thing that need to be underline in case of capital market role in corporate reporting is the

negative relation with the probability of <IR> framework adoption. Indeed, as the capital market is more mature, there are mechanisms of the market that already ask from managers a high financial and non-financial transparency. That is why, an integrated report will not significantly decrease asymmetry of information.

Concerning FRQ coefficients in all the models, we cannot confirm any influence on firms' decision to adopt <IR> ($\beta_{FT} = -0.13$, $p_{\beta_{FT}} = 1.32\%$, in case of single factor model and contradictory $\beta_{FT} = 0.06$, $p_{\beta_{FT}} = 40\%$, in case of multiple factors model). In the end, an integrated report is not meant to replace the financial annual reports. It just has to make a synthesis of financial information and connect it with the ways the performance was achieved with the means that were affected (the six capitals from the business model).

Also, both Model 4 and Model 8 show that there cannot be confirmed any significant influence on probability of <IR> framework adoption, determined by the investor protection framework, or shareholders governance country legal framework, as they exceed the accepted significance level of maximum 10% ($\beta_{IP} = 47.55\%$, $p_{\beta_{SG}} = 58.76\%$ in case of logit model, or $\beta_{IP} = 91.04\%$, $p_{\beta_{SG}} = 32.7\%$ in case of PLM model). This can be explained by the situation that describe the current society extremely fragmented when talking about regulatory systems and level of accounting regulation, even if we would talk only about EU members. Moreover, in practice there is high dispersion, meaning that country-level indexes used in the models are extremely variable along the sample analyzed.

Overall, it can be concluded that more important on deciding to adopt or not <IR> reporting are firm-level drivers, not country-level factors, because of the high degree of specificity that describe each firm's business case.

5. Conclusions

Corporate reporting is a concept relatively new that has a long story behind. Starting from pure financial reporting, the corporate reporting model has translated into a sustainability reporting model which, as underlined by Eccles & Serafeim (2014), is intended to bring in the economy, not only information but also means of transformation into a better economic, social and environment framework. They are clear until now the advantages and disadvantages of financial reporting and sustainability reporting models. But what will happen with the brand new model of integrated reporting? This question is even more necessary to be answered as this model is a form of voluntary corporate reporting, meaning the decision is made by managers at a firm decision process level.

This article is trying to touch some fundamental topics of integrated reporting framework. On one side, we have drawn up a short view of how actually the business case of <IR> framework adoption decision look like and which are the main factors perceived to be the main drivers that may favor this decision. On the other side, experts and academics, as well, call for deep empirical research on this area, as this research would answer to some basic wonderings, circling around integrated reporting model. Once the model is better understood by managers, shareholders and stakeholders, they can decide based on the real opportunity to adopt <IR> framework. Even there is great support towards integrated reporting, the studies are based, mainly, on qualitative research which might be easily manipulated, as there isn't used a powerful system of statistical tools in the research, or the people involved either are not honest, or do not have correct idea of what integrated reporting is.

Overall, the statistical test done on this study tell us that more important on deciding to adopt or not <IR> framework are the firm-level drivers, not country-level factors, because of the high degree of specificity that describe each firm's business case. Also, users of the integrated report should continue to analyze in parallel financial and sustainability reports, as in some cases managers might build the integrated report with the initial intention to mislead the reader and put them on a god light, even if it not the case.

We have to underline the fact that the study suffer for some limitations. First of all, we have to say that the sample studied is highly heterogeneous, either from firm-level factors perspective, or country-level factors perspective. Secondly, we must remind that country-level indexes do not reflect fairly the firms as institutional factors have low influence on decision to adopt or not <IR>. In the end, managers will publish integrated reports only once they will get significant incentives that

exceed cost of preparation and will imply minimization of financial statements certification costs, litigation costs, or industry competitive costs.

We would recommend for future research, the Big4 firms to extend their analysis of integrated reports quality, because at least Ernst & Young follow up firms only from Johannesburg capital market. If they are not willing, then there should be created a database for European firms at least concerning calculation for a quality index that might help researchers to reveal, if it is the case, a comparative business case of integrated reporting, in case of mandatory <IR> framework adoption, or in case of voluntary adoption. Also, a measure of integrated reports quality has to be developed in order to build more relevant econometric models that might lead to a convergent idea regarding main drivers of integrated reporting implementation decision. Moreover, such kind of indexes would be really helpful for researchers to check the impact of <IR> report on the cost of capital, market liquidity of the shares, forecast information accuracy and the list can continue.

From a local research perspective, we will try to understand the reasons why in Romania no firm hasn't yet published an integrated report and to figure out the incentives that might determine managers to step in this direction. I would, also, recommend accounting profession in association with industry-based associations, to get involved more on developing training programs that should describe integrated reporting model. In the end, let's do not forget that integrated reporting model comes directly from corporate reporting practice and is aimed to become the sum of all best practices in corporate reporting area.

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