

IFRS AND INVESTORS' TRADING PATTERNS: A CONCEPTUAL FRAMEWORK

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Abstract

Research aim: The purpose of this study is to provide a conceptual model that guides in examining the capital market effects of IFRS adoption from the perspective of investors' trading patterns, particularly those behaviors that tend to defy the validity of EMH, in this context; herding behavior.

Design/ Methodology/ Approach: The study is conceptual in nature. It relies on a review of the prior academic literature on economic and informational consequences of IFRS adoption published in prominent academic journals.

Research findings: The study finds that despite an enormous amount of research thus far, in this area, substantive empirical evidence on economic and informational consequences of IFRS adoption appears to be far from reach. So far, many questions surrounding the capital market effect of IFRS adoption are yet to be fully resolved. More specifically, it is noted that one of the relatively under-researched areas in the current literature is the nexus between IFRS and investors' trading behaviors.

Theoretical contribution/ Originality: To the researchers' knowledge, this study is first to explicitly explore the nexus between IFRS and investors' herding practices, while highlighting the role of the national economic culture.

Practitioner/ Policy implication: The results of this study are expected to be of interest to academics, regulators, and policymakers in performing a cost-benefit analysis of this planetary set of reporting benchmark, and to the investing public and other market participants who trade based on market fundamentals, treating them as principal indicators for future market movements.

Research limitation/ Implication: The study suggests the use of national economic culture to moderate the effect of IFRS on investors' trading behavior. Nonetheless, this does not imply that there are no other significant factors or even more significant than culture but based on evidence

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documented in the prior studies there is no support for the contention that national economic culture is inconsequential.

Keyword: IFRS Adoption, Herding, National Economic Culture

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1. Introduction

Since the advent of the behavioural finance paradigm in the 1980s, a plethora of studies on finance have been devoted to the employment of cognitive psychological theory with conventional finance to provide explanations as to why investors make irrational investment decisions (Hachicha, 2010; Musse & Echchabi, 2015). A significant part of these studies has been centred on specific investors' trading bias called herding behaviour, a concept that, hitherto, used to be confined typically within the realm of the rational finance paradigm (Chang & Lin, 2015; Hachicha, 2010). Academic interest in herding behaviour has been notably intense in the aftermath of several recent financial crises (Mobarek, Mollah, & Keasey, 2014). A number of these crises have largely been attributed to investors' behavioural biases (Galariotis, Rong, & Spyrou, 2015b; Lee & Lee, 2015), particularly herding behaviour (Galariotis, Krokida & Spyrou, 2015a).

Behavioural finance literature construes herding as a tendency of investors to copy the observed actions of others, even when their private signals suggest otherwise (Dang & Lin, 2016; Litimi, BenSaïda, & Bouraoui, 2016), on the assumption that basing their investment decisions on the available information is likely to incur them more costs and less benefits. The activities of this class of trader have often been seen as the reason why market decline fuels further market declines and market increase fuels further market increases (Lakonishok, Shleifer, & Vishny, 1992), thus leading to excessive volatility in the market as well as economic bubbles, and, ultimately, market crashes (Javaira & Hassan, 2015).

Although the academic finance literature has advanced several explanations as to why investors exhibit herding behaviour in the financial market, such behavioural pattern is usually associated with an opaque information environment (Javaira & Hassan, 2015; Yao, Ma, & He, 2014; Zhou & Lai, 2009), due to lax regulatory infrastructure (Bikhchandani & Sharma, 2000), weak accounting standards (Guney, Kallinterakis, & Komba, 2017; Prosad, Kapoor, & Sengupta, 2012), and high information acquisition costs (Duasa & Kassim, 2009). These arguments have featured in prominent academic literature over the last few decades. In times of market turbulence, these discussions accentuate

(Antoniou, Koutmos, & Pericli, 2005; Galariotis et al., 2015a). The popular view tends to revolve around the clamour for more regulatory action to lessen the effects of herding and the irrational exuberance of investors, on the premise that these activities increase the fragility of the financial market (Grosse, 2017; Guney et al., 2017).

Interestingly, this growing clamour has brought about a number of regulatory initiatives (Ayres & Mitts, 2015; Jun, 1993), with many countries around the world demonstrating a strong commitment to strengthen their reporting and other securities regulatory infrastructure in order to mitigate market anomalies and stimulate market efficiency and stability (Cumming, Knill, & Richardson, 2015; Daske et al., 2008). For example, in August 2000, the US Securities and Exchange Commission (SEC) enacted the Regulation Fair Disclosure (Reg. FD) with the aim of reducing information asymmetries and ensuring that firms' material private information is fair and accessible to all investors (Yu & Webb, 2017). The SEC and the advocates have further stressed that the adoption of this new regulation would lead to a fairer market by ensuring the immediate dissemination of information to all the market participants simultaneously (Irani & Karamanou, 2004).

In Europe, however, the EU policymakers have also introduced a number of ambitious initiatives aimed at protecting investors, enhancing the quality of disclosure, and reducing financial market abuse (Christensen, Hail, & Leuz, 2016; Palea, 2013). The Financial Services Action Plan (COM 1999, 232, 11.5.1999) maps out the first set of improvements to the EU legislative framework for financial markets (Christensen, Hail, & Leuz, 2013; Christensen et al., 2016). Another of the EU's regulatory efforts that has received considerable accolade is the adoption of the global reporting benchmark through legislation Reg. EC 1606/2002. The new legislation mandated all the EU member states to adopt the International Financial Reporting Standards (IFRS) from January 2005 (Brüggemann, Hitz, & Sellhorn, 2013). In fact, the acceptance and adoption of IFRS by the EU member states is arguably one of the significant regulatory changes in the accounting history (Hail, Leuz, & Wysocki, 2010), and a phenomenon that receives considerable attention in the accounting network (Ding, Hope, Jeanjean, & Stolowy, 2007).

The hope behind the adoption of this planetary set of reporting benchmarks, in Europe and elsewhere, is to help eliminate the frictional tendency of capital inflow, reduce the cost of capital (Kim, 2013; Persakis & Iatridis, 2016), improve analysts' forecasts (Byard, Li, & Yu, 2011; Hodgdon, Tondkar, Harless, & Adhikari, 2008), increase value relevance

(Capkun et al., 2008; Gjerde et al., 2008), reduce information asymmetry (Beneish, Miller, & Yohn, 2015; Dumontier & Maghraoui, 2007), and information acquisition costs (Ball, 2006), increase firms' liquidity, and generally contribute towards the effective and cost-efficient functioning of the capital markets (Barth, Landsman, & Lang, 2008; Chua, Cheong, & Gould, 2012).

However, despite the acclaimed benefits of these regulatory changes to curtail market anomalies and promote market efficiency and stability, recent evidence indicates that investors' trading biases still remain pervasive (Jang, 2017), particularly herding behaviour (Chang & Lin, 2015), in both emerging (Javaira & Hassan, 2015; Yao et al., 2014), and developed markets (Blasco, Corredor, & Ferreruela, 2017; Clements, Hurn, & Shi, 2017; Galariotis et al., 2015b; Litimi et al., 2016). This situation poses some interesting questions; for example, what actually constitutes the effect of the recent financial regulatory changes on investors' behavioural anomalies, such as herding? Does the new regulatory regime materially improve the investors' information set? Or are there some potential negative consequences of these regulatory initiatives? These, we argue, are important empirical questions for which empirical answers are sought.

The purpose of this study, therefore, is to provide a conceptual model that would help address these empirical questions. In doing so, the study focuses on such significant financial regulatory change (Reg. EC 1606/2002) that mandates all the EU member states to comply with the IFRS reporting requirements as from January 2005. The EU financial markets seem to provide a unique laboratory for this experiment. This is because several EU officials, media outlets, and market participants proclaimed that investors' herding behaviour appeared widespread and was partly responsible for the recent EU financial crisis (Galariotis et al., 2015a). Specifically, the EU Economic and Monetary Affairs Commissioner (Olli Rehn) claimed during the recent agreement of the Irish aid-package that there was plenty of investors' behavioural anomalies in the EU financial market, particularly, herding behaviour (Galariotis et al., 2015a). Jose Manuel Barroso (the EU president) was also reported to have attributed the recent EU crisis not only to budgetary fundamentals but also to investors' behavioural biases (Galariotis et al., 2015b).

Examining this nexus would contribute to the growing IFRS literature in a number of ways. For example, while earlier empirical studies mostly focus on examining the capital market effects of IFRS adoption from the perspective of firm's cost of capital (Ball, 2006; Daske

et al., 2008; Kim et al., 2014; Persakis & Iatridis, 2016); analysts' forecast (Byard et al., 2011; Hodgdon et al., 2008; Tan et al., 2011); value relevance (Capkun et al., 2008; Gjerde et al., 2008); information asymmetry (Beneish & Yohn, 2008; Dumontier & Maghraoui, 2007; Wang & Welker, 2011); and information acquisition costs (Ball, 2006), this study differs as it focuses on the capital market effect from the perspective of investors' trading behaviour. Research addressing this issue is scant. Hence, this study is believed to be one of the limited number of studies that explicitly explore this direct connection. In this way, the study complements the efforts of Chau, Dosmukhambetova and Kallinterakis (2013) who examined the effect of mandatory IFRS adoption on investors' noise trading behaviour in three central and eastern European (CEE) markets. In a similar spirit, the present study finds it worthy to deepen our current understanding by revisiting this area with possible improvement in the methodology used, variables employed and their measurements, timeframe, as well as the sample countries. Besides, unlike most prior research, this study takes into account the need to highlight the role of national economic culture in influencing the effects of IFRS adoption in the EU. This is deemed significant given that harmonizing financial regulations in this jurisdiction represents a supranational move to unify the diverse institutional and cultural factors that exist in the EU (Brüggemann et al., 2013). This, however, raises another concern as to whether one size fits all regulations are appropriate or even feasible across all the EU member states. Thus, the potential findings of this study are expected to be of interest to academics, regulators, and policymakers in performing a cost-benefit analysis of this planetary set of reporting benchmarks.

2. Methodology

This study is conceptual in nature. It relies on a review of the prior literature on economic and informational consequences of IFRS adoption published in prominent academic journals. Initially, the study only considered scholarly articles published from the year 2005. This period was chosen because it was a period when IFRS adoption was made mandatory in the EU jurisdiction. However, the scope was stretched to include selected scholarly articles published before 2005 due to their significance to the set research objectives. Furthermore, the articles considered are largely from the world's leading academic journals included in the Social Science Citation Index (SSCI) database. The SSCI receives global recognition to the extent that some countries use it to evaluate researchers' productivity (Lourenço, Branco, & Castelo, 2015).

For example, in Spain, it is a legislative declaration that the bonuses and career development of a researcher are tied to publication in this category of journals (Parker & Guthrie, 2012). Table 1 summarizes the relevant articles reviewed per journal and year of publication.

3. Literature Review

3.1. Economic and Informational Consequences of IFRS Adoption

Research on the effects of IFRS adoption is usually viewed in terms of its economic and informational consequences, a concept typically used to describe how the new planetary set of reporting benchmarks affects accounting information quality and the capital market (Armstrong, Barth, Jagolinzer, & Riedl, 2010; Brüggemann et al., 2013; Chau et al., 2013; Lambertides & Mazouz, 2013). Table 2 summarizes the review of the relevant academic literature on the economic and informational consequences of IFRS adoption.

3.2. IFRS and Financial Reporting Quality

As evident in the above table, one of the well-explored areas in the IFRS literature is the link between IFRS and financial reporting quality. Financial reporting quality is a term used in relation to the precision with which financial information informs investors about a firm's current operating performance and the future market movement (Callen, Khan, & Lu, 2013; Hribar, Kravet, & Wilson, 2014). Chen, Tang, Jiang and Lin (2010) consider financial reporting quality to be "the extent to which financial information reflects firms' underlying economic reality." Another commonly cited definition is the one given by Jonas and Blanchet (2000), who describe financial information quality as "the one that is complete, transparent, and designed not to obscure or misinform the users."

Prior accounting research has shown that financial information is said to be of quality if it has decision usefulness (Lennard, 2007). To be useful, the information must satisfy two main qualitative characteristics – relevance and faithful representation (Krismiaji, Aryani, Suhardjanto, & Suhardjanto, 2016). Financial information is relevant if it is capable of making a difference in the decisions made by users (Nobes & Stadler, 2015). While it has a perfectly faithful representation if it is complete, neutral, and free from error (Deegan, 2013). Although perfection is hard, if ever, attainable, one of the primary objectives of IASB is to exploit these qualities to the extent possible.

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Table 1. Distribution of Articles Examining the Economic and Informational Consequences of IFRS Adoption per Journal and Year of Publication

Journal	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Accounting & Finance							1						1
Accounting Review					1		2						3
Advances in Accounting												1	1
Australian Accounting Review												1	1
China Journal of Accounting Research								1					1
Cogent Business & Management									1				1
Contemporary Accounting Research								2					3
Corporate Governance: An International Review			1										2
Critical Perspectives on Accounting									1				1
Emerging Markets Review			1									1	1
European accounting review								1					2
Finance Research Letters												1	1
International Journal of Accounting							1						5
Journal of Accounting and Economics							1	1					2
Journal of Accounting and Public Policy							1				1		3
Journal of Accounting Research							1				1		4
Journal of Accounting, Auditing & Finance							1						1
Journal of Applied Accounting Research													2
Journal of Applied Economics and Business Research													1
Journal of Business Ethics									1			1	1
Journal of Business Finance & Accounting		1											1
Journal of International Accounting, Auditing and Taxation			1									1	1
Journal of International Financial Management &													1

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Journal	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Accounting												1	1
Journal of International Financial Markets, Institutions and Money									1				
Journal of International Money and Finance											1		1
Management International Review											1		1
Pacific-Basin Finance Journal											1		1
Review of Accounting Studies											1		1
Review of quantitative finance and accounting										1			1
Spanish Journal of Finance and Accounting										1			1
The Quarterly Review of Economics and Finance													1
Total	0	1	3	4	0	3	4	5	11	3	4	11	3
													52

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Table 2. Empirical Evidence on Economic and Informational Consequences of IFRS Adoption around the World

Author(s)	Sample Country	Outcome Variable (s)	Methodology/Model	IFRS Effects
Ahmed, Chalmers and Khelif (2013)	-	Value relevance, earnings transparency, analysts' earnings forecasts	Meta-Analysis	Mixed
Ahmed, Neel and Wang (2013)	35 Countries around the world	Income smoothing, timely loss recognition, aggressive reporting of accruals	Secondary Analysis	Negative
Alexandre and Clavier (2017)	15 EU Countries	Bank liquidity constraints, credit rationing	Econometric modelling	Marginal
Ali, Akbar and Ormrod (2016)	UK	Profitability of the UK's alternative investment market	Econometric modelling	Positive
Ames (2013)	South Africa	Earnings quality, value relevance	Econometric modelling, secondary data	Mixed
Armstrong et al. (2010)	18 European Countries	Stock market reaction	Econometrics	Positive
Beneish et al. (2015)	51 Countries around the world	Cross-border debt and equity investment	Secondary data analysis	Positive
Beneish and Yohn (2008)	-	Investors' equity home bias	Review	None
Brüggemann et al. (2013)	-	Comparability/transparency of financial statement	Review	Mixed
Byard et al. (2011)	20 European Countries	Analysts' forecast error forecast dispersion, and analyst following.	Econometric modelling	Positive
Callao, Jarne and Lainez (2007)	Spain	Comparability, value relevance of financial reporting	Econometric modelling	
Capkun, Collins and Jeanjean (2016)	29 Countries around the world	Income smoothing	Secondary data	Negative

Author(s)	Sample Country	Outcome Variable (s)	Methodology/Model	IFRS Effects
Cascino and Gassen (2015)	Germany and Italy	Comparability of accounting information	Hand-collect data analysis	Marginal
Chau et al. (2013)	3 Central and Eastern European countries	Investors' noise trading behaviour	Econometrics	Positive
Chen, Young and Zhuang (2012)	17 European countries	Firm's investment efficiency	Secondary data analysis	Positive
Cotter, Tarca and Wee (2012),	Australia	Analysts' earnings forecast	Secondary data	Positive
Daske et al. (2008)	26 Countries around the world	Equity market liquidity, cost of capital, Tobin's Q		Positive
Daske et al. (2013)	30 Countries around the world	Firms' liquidity, cost of capital	Secondary data analysis	Positive
Daske (2006)	Germany	Cost of equity capital	Secondary data analysis and Econometric modelling	Negative
DeFond, Hu, Hung and Li (2011)	24 countries around the world	Financial information	Secondary analysis	Positive
Elbakry, Niwachukwu, Abdou and Elshandidy (2017),	UK and Germany	Comparability	Econometric modelling	Positive
Florou and Pope (2012)	45 Countries around the world	Value relevance of accounting information		Positive
García, Alejandro, Sáenz and Sánchez (2016)	4 Latin American Countries	Institutional investors' demand for equities	Secondary analysis	Positive
Gjerde, Knivsflå and Sættem (2008)	8 European countries and Australia	Earnings timeliness, value relevance	Econometric modelling	Positive
Gong, Sophia and Wang (2016)	Sweden	Change in value relevant and R&D expenses	Secondary data	Marginal
Hamberg, Mavruk and Sjögren (2013)	13 Countries in Europe, Africa, and Asia	Equity home bias	Secondary data	Negative
Hodgdon et al. (2008)		Analysts' forecast error	Secondary data Econometric modelling and Secondary data analysis	Positive Positive

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Author(s)	Sample Country	Outcome Variable (s)	Methodology/Model	IFRS Effects
Horton, Serafeim and Serafeim (2013)	46 Countries around the world	Market information environment	Econometric modelling	Positive
Houqe, Easton and van Zijl (2014)	3 Western European countries	Information quality	Econometric modelling	Positive
Houqe, Monem and van Zijl (2016)	New Zealand	Cost of capital	Econometric modelling	Mixed
Karampinis and Hevas (2011)	Greece	Conditional conservatism, value relevance	Econometric modelling	Marginal
Kim, Shi and Zhou (2014)	34 Countries around the world	Implied cost of capital	Econometric modelling	Positive
Lambertides and Mazouz (2013)	20 European Countries	Stock price volatility, Informational efficiency	Econometric	Positive
Landsman, Maydew and Thornock (2012)	27 Countries around the world	Information content of earning announcement	path analysis	Positive
Lin, Riccardi and Wang (2012)	Germany	Accounting quality	Secondary data analysis	Negative
Liu, Yao, Hu and Liu (2011)	China	Earnings management, value relevance	Econometric modelling	Positive
Misriloğlu, Tucker and Yükseltürk (2013)	Turkey	Measurement change	Interview	Mixed
Olübe (2016)	UK	Equity Price and trading volume responses	Econometric modelling	Positive
Palea (2013)	-	Financial reporting quality	Review	Positive
Persakis and Iatridis (2017)	11 Euro zone and 8 Asian countries	Firms' cost of capital	Econometric modelling	Positive
Platikanova and Perramon (2012b)	4 European Countries	Market liquidity	Secondary data analysis	Positive
dos Santos, Fávero and Distadío (2016)	145 Countries around the world	Firm's financing decision	Linear hierarchical regression model	Mixed

Author(s)	Sample Country	Outcome Variable (s)	Methodology/Model	IFRS Effects
Soderstrom and Sun (2007)	-	Accounting information quality	Review	Mixed
Tan, Wang and Welker (2011)	25 Countries around the world	Analysts' following	Secondary data	Positive
Turki, Wali and Boujelbene (2016)	France	Information asymmetry, cost of capital, analyst forecast	Econometric modelling	Positive

The term faithful representation according to Neel (2017) is usually encapsulated by the term "reporting quality" and measured by a number of constructs, including, but not limited to, value relevance (Barth et al., 2008; Barth, Landsman, Lang, & Williams, 2013;), accrual quality (Gassen & Sellhorn, 2006; Soderstrom & Sun, 2007), earnings management (Ahmed et al., 2013; Rudra & Bhattacharjee, 2012;), earnings predictability (Gassen & Sellhorn, 2006; Van der Meulen, Gaeremynck, & Willekens, 2007), and timeliness (Paananen, 2008; Zeghal, Chtourou, & Fourati, 2012). Dechow et al. (2010) also put forward an argument to suggest that earnings quality could also be evaluated with respect to any decision that depends on an information representation of financial performance. Therefore, the term does not limit quality to infer decision usefulness in the context of equity valuation decisions.

Accordingly, as a global set of reporting standards, IFRS is assumed to improve the financial reporting quality by enhancing the understandability and comparability of financial reports across international boundaries. The standards are meant to attain three objectives. Firstly, to help in standardizing the diverse accounting policies prevailing around the globe and removing the incomparability of financial statements within and across entities. Second, to facilitate the presentation of high quality, transparent and comparable information in financial statements. Third, to reduce to accounting alternatives, thereby eliminating the element of subjectivity in financial statements (Chakrabarty, 2011). The output of comparable financial information under IFRS allows users to evaluate the financial information of a reporting entity and compare it with similar information about other entities and with similar information about the same entity (DeFond et al., 2011). Relatedly, Platikanova and Perramon (2012a) argued that comparable financial information can only be of value if it allows users to identify similarities in and differences between two sets of economic phenomena. Hence, the introduction of IFRS is expected to remove informational externalities arising from a lack of comparability.

Similarly, the comparability benefit of IFRS is also found to reduce the information acquisition costs and enables investors and other market participants to make informed economic decisions (Brochet, Jagolinzer, & Riedl, 2013). All these arguments are premised upon at least two major assumptions. First, IFRS is expected to be of superior quality compared to a local reporting benchmark and adopting such standards would lead to a better-quality reporting system. The second argument is based on the notion that the reporting benchmark is a complementary factor of the

overall country's institutional factors (Ball, 2006) as well as firm-specific factors (Soderstrom & Sun, 2007).

3.3. IFRS and Capital Market

There is an intense academic debate surrounding the effect of IFRS adoption on capital markets (Daske et al., 2013; Christensen et al., 2013). However, so far, most research points to the direction of positive capital-market effects of IFRS, with some real economic consequences, such as a decrease in the cost of capital and an increase in market liquidity (Daske et al., 2008; De George, Li, & Shivakumar, 2016; Kim et al., 2014). Other effects include stimulate cross-border investment (Gordon & Porter, 2009; Naranjo, Saavedra, & Verdi, 2016), improve financial analysts' information environment (Byard et al., 2011), and mitigate investors' behavioural biases (Beneish et al., 2015; Beneish & Yohn, 2008; Chau et al., 2013).

Studies on capital-market effects, as illustrated in the above table, show that a better reporting benchmark reduces adverse securities selection in the financial markets (Lambert, Leuz, & Verrecchia, 2007), and enhances investment efficiency (Naranjo et al., 2016), which, in turn, lowers the cost of raising capital (Diamond & Verrecchia, 1991; Li, 2010; Naranjo et al., 2016). Consistently, Lambertides and Mazouz (2013) found that the adoption of IFRS improves market efficiency, lowers stock price volatility, and enhances the quality of information production. In the same vein, Hodgdon et al. (2008), Cotter et al. (2012), and Wang and Welker (2011) reported that the implementation of IFRS enhances informational efficiency through the facilitation of cross-border information transfer and a reduction of information asymmetry, thereby increasing the ability of analysts to make accurate forecasts (Qu & Leung, 2006).

As IFRS is said to facilitate international capital mobility (Hamberg et al., 2013; Soderstrom & Sun, 2007), Brown (2011) argued that market liquidity would be expected to increase, because more investors with money to invest and more firms seeking additional capital will be attracted. The advocates of IFRS, however, have further justified increased disclosure and transparency as a means of reducing the cost of capital and increasing liquidity (De George et al., 2016). This, according to them, can be achieved through mitigation of the adverse price effect and investors fear of taking risks (Leuz & Verrecchia, 2000), which, in turn, would increase the demand for assets, and, by extension the firms' liquidity (Diamond & Verrecchia, 1991).

To this end, while acknowledging the efforts of the existing studies in testing the economic and informational effects of IFRS adoption, we notice that the research on the direct effects of IFRS on investors' behavioural patterns has not been explicit in the extant literature. This is surprising given that the advocates of IFRS have often maintained that the adoption of IFRS should improve the overall informational environment, which, in turn, would attract greater participation of sophisticated investors from both domestic and foreign markets (Chau et al., 2013). Intuitively, to the extent that the adoption of IFRS improves financial statement quality and transparency, the informational efficiency of the markets is expected to increase as a result of enhanced information-based trading. This increased transparency should also reduce the level of irrational investment behaviour and increase the speed at which new information is incorporated into prices. However, a review of the IFRS literature reveals that only a handful of studies have attempted to explore this connection. Notably, Chau et al. (2013) investigated the effect of the mandatory adoption of IFRS on investors' noise trading behaviour in Central and Eastern European countries. Their findings indicate significant evidence of noise trading before mandatory IFRS adoption, with this effect dispelling following the adoption of IFRS. Hence, the findings suggest that the application of IFRS presupposes that the investors' information set would be enhanced, information-based trading would be promoted, and the market information environment would be more efficient.

In the same vein, Hamberg et al. (2013) tested the familiarity hypothesis of investors' equity home bias by analysing how the foreign investment of Swedish firms changes following the mandatory adoption of IFRS. The results reveal that there is an increase in foreign capital inflow after IFRS adoption. However, this increase is noticed to be from the countries that implemented IFRS, mainly from the EU jurisdiction. They also notice that the effects appear stronger in small firms relative to big firms. Conversely, Beneish and Yohn (2008) found conflicting evidence for this conjecture. Specifically, the findings of the study suggest that IFRS adoption is pretty unlikely to significantly reduce investors' behavioural bias towards home equity and increase the extent to which they hold foreign capital.

To the extent that, largely, the quality of IFRS disclosure is not disputed, some researchers still remain sceptical as to whether mere adoption of IFRS is likely to bring about a desirable information environment (Christensen et al., 2013). This is because accounting and reporting practice are heavily influenced by a country's environmental

factors (Cieslewicz, 2014; Nurunnabi, 2015a). However, not all these factors have been fully evaluated in the prior IFRS literature (Borker, 2012, 2014; Gray, Kang, Lin, & Tang, 2015). This informs the need to highlight the influence of country-specific factors in examining the effect of this new regulatory regime.

3.4. The Role of the Country's Environmental Factors Around IFRS Adoption

An essential ingredient for effective IFRS implementation is a country's environmental factors. Daniel, Cieslewicz and Pourjalali (2012) stated that institutional infrastructure plays a significant role in ensuring quality disclosure and transparent corporate practices, through both formal processes, such as law and regulation, and an informal mechanism, such as norms and convention. Soderstrom and Sun (2007) provided a comprehensive review of the economic and informational consequences of IFRS adoption.

The authors argue that accounting standards only represent one of a multitude of factors capable of improving the quality of the accounting and reporting system, and that reporting incentives are as vital as the standards, and that they can be influenced by several factors. Nonetheless, we notice that most of the existing studies have shown more interest in examining the role of formal institutional factors with little attention devoted to the role of the informal institutional counterpart, such as the national economic culture. Ho and Wong (2001) argued that 'the role of culture on firms' disclosure has yet to be fully evaluated, because, it is usually presumed to be part of a wider institutional factor (Daniel et al., 2012). Thus, the importance of national economic factors in the development of national and international accounting systems has not been fully appreciated (Cieslewicz, 2014).

4. Findings

From the foregoing literature review, a number of points are noted. First, as observed by Leuz and Wysocki (2016), and Christensen et al. (2016) the academic debate on the costs and benefits of these regulations is still ongoing, and, so far, the empirical evidence is mixed. Second, although investors appear to be the prime beneficiaries of these financial regulatory changes, much less is known about how these regulatory changes affect their trading behaviours (Chau et al., 2013). A careful review of the extant literature indicates that the link between financial regulatory changes and investors' trading patterns generally requires further scrutiny (Armstrong et al., 2010; Hamberg et al., 2013).

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Table 3. The Role of Environmental Factors around IFRS Adoption

Study	Sample	Macroeconomic variable examined	Methodology	Findings
Albu, Albu, Bunea, Calu and Girbina (2011)	Romania	Institutional factors	Interview and secondary data analysis	Low conformity with IFRS due to coercive institutional factor
Amiram (2012)	105 Countries around the world	Language, legal origin, culture, corruption, investor protection	Secondary data analysis	The increase in foreign equity following IFRS adoption is driven by low level of corruption and better investor protection.
Ball, Kothari and Robin (2000)	7 Countries around the world	Legal origin, taxation, litigation	Secondary data analysis, Econometric modelling	Legal origin, taxation, and litigation influence the properties of accounting earnings.
Mary E. Barth and Israeli (2013)	35 Countries around the world	Regulatory quality	Secondary analysis	IFRS adoption leads to liquidity benefits, but these benefits rely on the strength of enforcement mechanisms.
Borker (2014)	Egypt, Iran, and Iraq	Cultural Orientation	Secondary analysis	There is a positive relationship between cultural orientation and IFRS implementation.
Cieslewicz (2014)	49 Countries around the world	Institutional variables, economic culture	Secondary analysis	National institutional and cultural factors have positively influenced IFRS implementation.
Clements, Neill and Stovall (2010)	61 Countries around the world	National Culture	Secondary analysis	There is a negative relationship between national culture and IFRS adoption.
Gray et al. (2015)	14 EU Countries	National Culture	Secondary data	Earnings management continues after IFRS

Study	Sample	Macroeconomic variable examined	Methodology	Findings
			analysis	adoption, and national cultural factor remains influential in explaining the extent of the phenomenon across countries.
Houqe and Monem (2016)	104 Countries around the world	Political institution and perceived corruption	Secondary data analysis	IFRS implementation lowers the level of perceived corruption in developing countries.
Houqe, Monem, Tareq et al. (2016)	16 European countries	Financial secrecy	Secondary data analysis	The effect of IFRS on earnings quality is higher in countries with a higher level of secrecy.
Isidro and Raonic (2012)	26 Countries	Institutional factors	Econometric modelling	Country's institutional factors positively influence reporting quality.
Chen and Cheng (2007)	China	Corporate governance mechanism	Secondary data analysis,	Corporate governance mechanism has no significant influence on Chinese transition to IFRS.
Judge, Li and Pnsker (2010)	Greece and the US	Isomorphic pressures-coercive, normative and mimetic	Secondary data analysis	Institutional pressure-coercive, normative and mimetic tend to influence the adoption of IFRS.
Karabrahimoglu and Cangarli (2016)	54 Countries around the world	Hofstede's cultural dimension	Secondary data analysis	National cultural variables influence the financial reporting and auditing standards on firms' ethical behaviour.

IFRS and Investors' Trading Pattern: A Conceptual Framework

Study	Sample	Macroeconomic variable examined	Methodology	Findings
Nurunnabi (2015b)	Bangladesh	Politico-institutional factor	Interview	IFRS adoption is influenced by three national institutional factors – coercive, normative, and mimetic pressures.
Shima and Yang (2012)	73 Countries around the world	Legal system, political and economic tie, taxation, size of the capital market, inflation	Secondary data analysis	Legal system, political and economic tie incentivize the adoption of IFRS. However, taxation, capital market size and inflation are found to be negatively related to IFRS adoption
Christensen et al. (2013)	35 Countries around the world	Regulatory quality	Self-constructed surveys/secondary data analysis	Changes in enforcement mechanism play a significant, if not dominant, role for the observed liquidity benefits after mandatory IFRS adoption.

Thus far, only a few studies have attempted to explore this direct connection (e.g., Beneish et al., 2015; Beneish & Yohn, 2008; Chau et al., 2013; Mensah & Yang, 2008). Moreover, the limited studies available are typically narrowed to a specific market, e.g., emerging over developed markets (e.g., Kerl & Pauls, 2014; Voronkova & Bohl, 2005), or samples around a small size threshold (e.g., Chau et al., 2013; Lambertides & Mazouz, 2013), or a single country study (Mensah & Yang, 2008). Thus, the evidence documented so far is by no means generalizable. Third, with regards to herding behaviour, so far, the evidence is mixed and usually limited to the US regulatory changes, notably Reg. FD (see, Arya et al., 2005; Mensah & Yang, 2008). Hence, we virtually lack evidence concerning the impact of these regulatory initiatives on investors' herding practice in the EU financial market, except for positive feedback trading, which is considered to be an element of herd mentality, as documented in the IFRS literature (see, Chau et al., 2013; Lambertides & Mazouz, 2013).

Consequently, while the EU's adoption of IFRS is said to be a welcome development, Brüggemann et al. (2013) argued that harmonizing reporting regulation in that jurisdiction represents a supranational move that attempts to unify various institutional and cultural factors. This, however, poses another concern as to whether a one size fits all financial regulation is appropriate or even possible across all the EU member states. In this regard, Gray et al. (2015) argued that it will be excessively ambitious to assume that having a uniform set of reporting benchmarks would improve the information environment, as accounting and reporting practices do not operate in a vacuum (Nurunnabi, 2015a). There are diverse patterns of financial system, and the development of these financial systems tends to be a function of environmental factors (Cieslewicz, 2014; Qu & Leung, 2006; Shima & Yang, 2012). Among these factors, national economic culture is construed to have a significant influence on firms' reporting practices (Cieslewicz, 2014; Nurunnabi, 2015a), since the accounting and reporting system is a product of its environment (Perera et al., 2012), and each environment is unique to its cultural forces (Nurunnabi, 2015a). Thus, diversity in cultural values is enough to affect the way and manner in which financial regulations are implemented (Brown & Tarca, 2005).

Surprisingly, despite the significant influence of national economic culture on corporates' reporting practices, the factor largely receives no explicit recognition (Borker, 2014); its effect around IFRS adoption has not been fully estimated (Karaimrahimoglu & Cangarli, 2016). Ugrin, Mason and Emley (2017) called for future researchers to test the impact

of IFRS, globalism, and diversity, which may blur the cultural identity of the multinational entities that are required to comply with IFRS.

4.1. Proposed Conceptual Framework

With the aim of extending the IFRS literature, this study proposes a model that would help in examining the economic and informational consequences of IFRS adoption from the perspective of investors' behavioural patterns. This is undertaken with particular focus on those behaviours that tend to defy the validity of the IFRS objective of improving market efficiency and stability; in this context herding behaviour. However, given that changing the reporting regime in a given country does not necessarily change the way people think, or how institutions are respected, operated, or funded, diversity in cultural values across countries may affect the adoption and application of IFRS to a different degree (Borker, 2014). Consistent with this line of thinking, this study highlights the moderating role of national economic culture in examining investors' trading patterns around IFRS adoption. Bringing culture explicitly into the model could improve the understanding of the relationships between the new reporting regime and investors' herding tendency. On a practical level, having a more nuanced understanding of the effect of herding around the new regulatory regime will help regulators and policymakers to become better equipped to manage business relationships in an environment with multicultural orientations.

According to the EMH, securities prices reflect all the available information at all times, and investors interpret this information in an unambiguously rational manner. Therefore, Lambert, Hübner, Michel and Olivier (2006) argued that if this assertion is to be believed, then the link between quality reporting standards and EMH can be established. This is because a quality reporting regime would ensure the immediate absorption of all relevant information into assets prices, including that contained in the history of past prices (Weak form of EMH), and that contained in publicly available information (semi-strong form of EMH), as well as that in the insider information (strong form of EMH).

To this end, understanding how informational change stemming from the IFRS reporting benchmark affects investors trading behaviour is important in and of itself (Hellmann, 2016). This is because the new reporting regime is arguably an investor-oriented standard, which tends to attenuate behavioural anomalies of investors, besides promoting information-based trading (Chau et al., 2013; Florou & Pope, 2009; Lambertides & Mazouz, 2013).

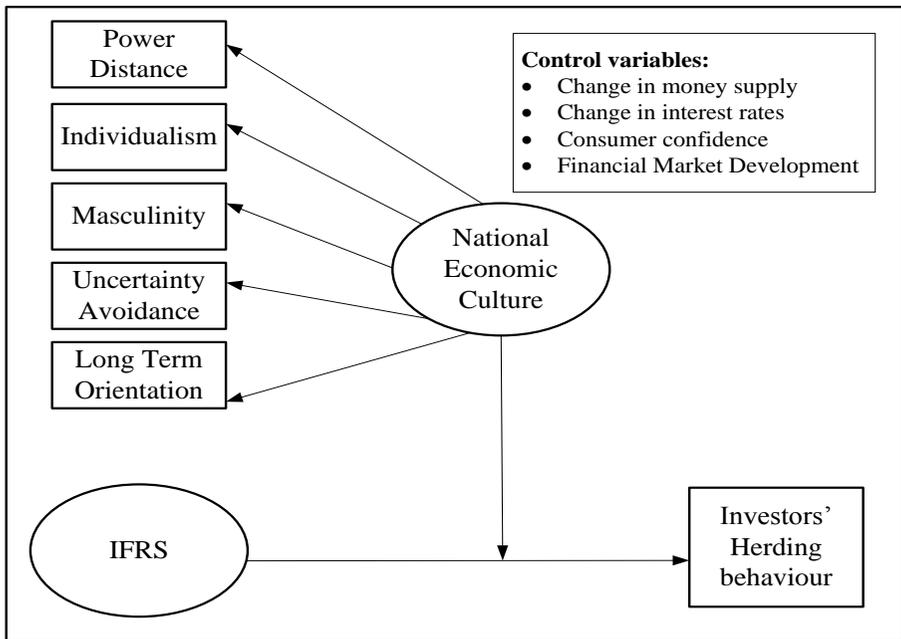


Figure 1. Proposed Conceptual Framework of IFRS and investors' trading pattern

Recent academic literature, however, corroborates this argument. The hypothesis that quality disclosure may have an impact on investors' trading behaviour has been supported in the extant literature. For instance, Leuz and Wysocki (2016) argued that improvement in information quality tends to incentivize desirable investment behaviours and discourage undesirable ones. This is because when investors' behavioural anomalies are by nature informational, the quality of corporate disclosure matters. High-quality reporting regimes like IFRS are expected to mitigate the asymmetries of information ex-ante and enable better control ex-post, thereby reducing the effect of market imperfections (Alexandre & Clavier, 2017).

Subsequently, with regard to the role of national culture, studies have shown that culture is evidently a major influencing factor on individual behaviour and decision-making. Ample literature has documented the influence of culture on accounting, economics, and finance, including its presumed effects on governance and regulations (Chang & Lin, 2015; Cieslewicz, 2014; Daniel et al., 2012; Lodorfos & Boateng, 2006; Perera, 1994; 1989; Perera, Cummings, & Chua, 2012). It is, therefore, very natural to assume that these behavioural effects would also influence economic outcomes and decision-making across borders

(Aggarwal & Goodell, 2017), irrespective of the financial regulation in place.

Therefore, to test the role of the national economic culture on the effect of IFRS on herding practice, we propose the use of Hofstede's (1980, 2001) five cultural dimensions. These indices are usually used in cross-cultural research and are arguably considered to be more prominent than any other competing cultural dimensions (Tang and Koveos, 2008). These dimensions are briefly described in Table 4.

Table 4. Description of Dimensions

Dimensions	Description
Power Distance (PD)	This refers to the extent of inequality that exists in society and is accepted by people with and without power. Thus, investors in a society with a higher PD score are more likely to accept an unequal distribution of information, which, in turn, might promote information asymmetry, and, by extension, herding practice.
Individualism (IND)	This refers to the extent to which people in society have a loose interpersonal connection and care only about themselves and their immediate family. Investors in a society with a low level of individualism are likely to trade in a contemporaneous manner by mimicking the action of others even if their signals suggest otherwise.
Uncertainty avoidance (UA)	This refers to the extent of society's tolerance for uncertainties and complexities. Investors in a higher UA society tend to assume that others are better informed and have vital information that they lack. As such, they find it safe to suppress their information and follow the market consensus. To them, using their information signal is likely to incur them more costs and less benefit.
Masculinity (MAS)	This refers to a preference for material achievement, assertiveness, and heroism. A high MAS score suggests that investors are likely to engage in opportunistic investment behaviour, for example, by disregarding their information analysis and following the action of victorious market investors to satisfy their ego.
Long-term orientation (LTO)	This refers to the degree to which people in a society need to explain the inexplicable to help in the search for future orientation. Investors in a lower LTO society are not likely to exhibit persistence and perseverance in using market fundamental variables in investment decisions. Instead, they might be influenced by the opinions of others.

Furthermore, given that investors' herding practice is likely to be affected by a number of factors, such as important macroeconomic information (Galariotis et al., 2015b), and the level of capital market development (Blasco et al., 2017). The macroeconomic variables that have proven to affect the intensity of investors' herding practice in the prior literature are included in the model as control variables. Namely, changes in interest rate, money supply, and consumer confidence (Galariotis et al., 2015a; Javaira & Hassan, 2015). According to Javaira and

Hassan (2015), a change in interest rates influences the theoretical value of firms and their shares. A share's fair value is its projected future cash flow discounted to the present using the investor's required rate of return. Thus, if interest rates fall and other things being equal, the share value should rise and vice versa. Regarding the money supply, the authors describe money supply as a measure of the liquidity available to the investors. More liquidity indicates more investment and excessive demand of equity that ultimately results in an upward movement of the nominal equity price. In addition to these variables, in line with Blasco et al. (2017), the present study includes a natural logarithm of GDP per capita as a proxy for capital market development in the regression model as another control variable.

4.2. Implications of the Study

Given the relatively limited research addressing the link between financial regulations and investors' trading behaviour, our study is expected to be of interest to academics, regulators, and policymakers in performing a cost-benefit analysis of financial regulatory changes, and to the investing public and other market participants who trade based on market fundamentals, treating them as principal indicators for future market movements. From the policy perspective, the findings of this study are expected to help policymakers in the EU jurisdiction to gauge whether the set objectives of the Regulation EC1606/2002 have so far been achieved. According to Palea (2013), one of the objectives of mandating the use of IFRS in the EU is to ensure a higher level of information transparency and facilitation of more effective and cost-efficient functioning of the EU capital markets. Furthermore, as the recent EU financial crisis has been attributed to investors' behavioural biases, particularly herding, it is hoped that the findings of this study will provide useful insights for policymakers in that jurisdiction. Thus, enabling them to introduce drastic measures to contain the adverse effect of behavioural bias by providing them with the basis to use empirical accounting and finance research to arrive at a defensible policy conclusion or to gauge the consequences of their earlier decisions.

5. Concluding Remarks

Motivated by the policy relevance of mandating the use of IFRS, the contentious evidence documented in the existing literature, and the limited research on the direct effect of IFRS on investors' behavioural patterns, this study proposes a model that would guide in testing the effect of mandatory IFRS adoption on investors' herding practice.

Furthermore, given the interdependence between accounting standards and national economic culture, the study argues that the consequences of IFRS implementation are likely to vary across countries due to the various incentives of preparers from different cultural orientations. To account for this effect, this study included in the model the role of a national cultural factor around the adoption of IFRS.

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