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The Impact of the International Financial Reporting Standards (IFRS) on the Value Relevance of Accounting Information in Saudi Arabia

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Background and Motivation

- **Why Value relevance?**

- Important measure of accounting quality.
- Often employed to measure the effect of IFRS adoption.
- Joint test of relevance and faithful representation

- **Why Saudi Arabia?**

- It has very distinctive institutional factors (legal, political, and cultural).
- Little attention in emerging markets.
- Saudi Arabia recently adopted IFRS and became the last country among the G20 members and GCC countries to join its peers in implementing IFRS.
- It has the largest economy among Arab and Middle East and Northern Africa (MENA) region countries (The World Bank, 2019)
- It has the largest capital market in the Middle East



The timeline of IFRS adoption in Saudi Arabia

February 2012

IFRS adoption
announcement

October 16th, 2016

Deferral the use of the fair
valuation models as in IAS 16, IAS
38 and IAS 40

December 31st 2017

Dual reports (IFRS and Saudi GAAP)
for the comparative year 2016

The comparative year

January 1st 2016 to
December 31st 2016

January 1st 2017

IFRS effective date



Key differences between Saudi GAAP and IFRS

IFRS

- More comprehensive set (42 standards).**
- More disclosure requirement.**
- Principle-based.**
- A balance sheet and fair valuation focus.**

Saudi GAAP

- Limited set of accounting standards (21 standards).**
- Less disclosure requirements.**
- Rule-based standards.**
- Income statement and historical cost focus.**



Research Hypotheses

H1: Accounting information of non-financial firms listed on the Saudi stock market is jointly value relevant during the study period (2015-2018).

H2: The joint and relative value relevance of accounting information (i.e., Book value of equity and earnings) prepared under IFRS is not more than those prepared under Saudi GAAP.



Research design

Period: 2015-2018 (two years before (2015-2016) and two years after (2017- 2018) the adoption).

Data: the Eikon DataStream, Orbis database, and the official website of the Saudi stock exchange (TADAWUL)

Sample: The final sample comprises 110 firms with a total of 440 firm-year observations (220 observations for each period of the study).



Research design

Value relevance model: The Price Regression Model (PRM) of Ohlson (1995).

$$P_{jt} = b_0 + b_1 \text{EPS}_{jt} + b_2 \text{BVPS}_{jt} + e_{it}$$

Dependent variable	Acronym	Measurement
Share price	P_{jt}	Share price for firm j four months after the fiscal year end t (i.e., April 30th in year t+1)
Independent variable	Acronym	Measurement
Earnings per share	EPS_{jt}	Earnings per share for firm j at time t (December 31st)
Book values of equity per share	BVPS_{jt}	Book values of equity per share for firm j at time t (December 31st)



Research design

The main metric of value relevance: The explanatory power (R^2) for joint value relevance of accounting information (EPS and BVPS) and regression coefficients (b) for relative (individual) value relevance (EPS or BVPS).

Tests for the change in the explanatory power (R^2): Vuong (1989) test for non-nested models and the Cramer (1987) test for independent models.

Tests for the change in the regression coefficients: interaction effect of the dummy variable DV_IFRS and accounting information variable.



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Main analysis

The value relevance throughout the study period (H1)

The yearly and pooled explanatory power (R^2) and regression coefficients (b) of this model will be used to test H1.



The impact of IFRS (H2)

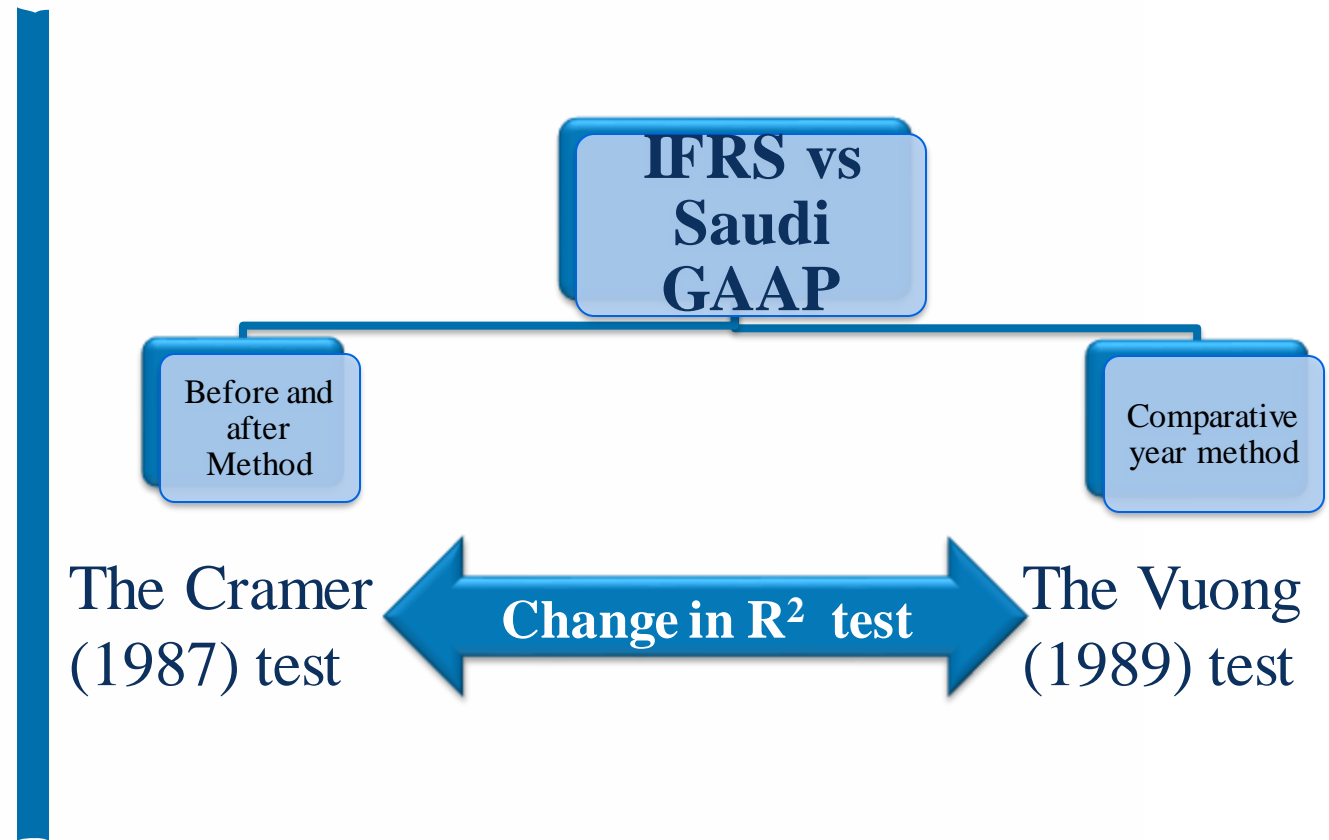
The individual value relevance

$$P_{it} = b_0 + b_1 DV_IFRS + b_2 EPS_{jt} + b_3 BVPS_{jt} + b_4$$

$$EPS_{jt} * DV_IFRS + b_5 BVPS_{jt} * DV_IFRS + e_{jt}$$

DV_IFRS is a dummy variable that takes the value 1 if accounting information is prepared under IFRS and 0 for under Saudi GAAP

The joint value relevance





Regression results

Panel A: Pre-and post-IFRS value relevance of accounting information: H1 and H2

$$P_{it} = a_0 + b_1 BVPS_{it} + b_2 EPS_{it} + e_{it}$$

Accounting standards	Year	N	EPS	BVPS	R ²	Combined R ²	The Cramer (1987) test
Saudi GAAP	2015	110	5.493**	0.195	44.7%**	41.5%**	1.529
	2016	110	5.01**	0.323	37.1%**		
IFRS	2017	110	5.423**	0.78*	49.2%**	50.8%**	
	2018	110	6.728**	0.849**	52.7%**		

Panel B: Comparative year value relevance of accounting information: H1 and H2

$$P_{it} = a_0 + b_1 BVPS_{it} + b_2 EPS_{it} + e_{it}$$

Accounting standards	Year	N	EPS	BVPS	R ²	The Vuong (1989) test
Saudi GAAP	Comparative year (2016)	110	5.01**	0.323	37.1%**	0.011
IFRS		110	4.678**	0.48	36.7%**	

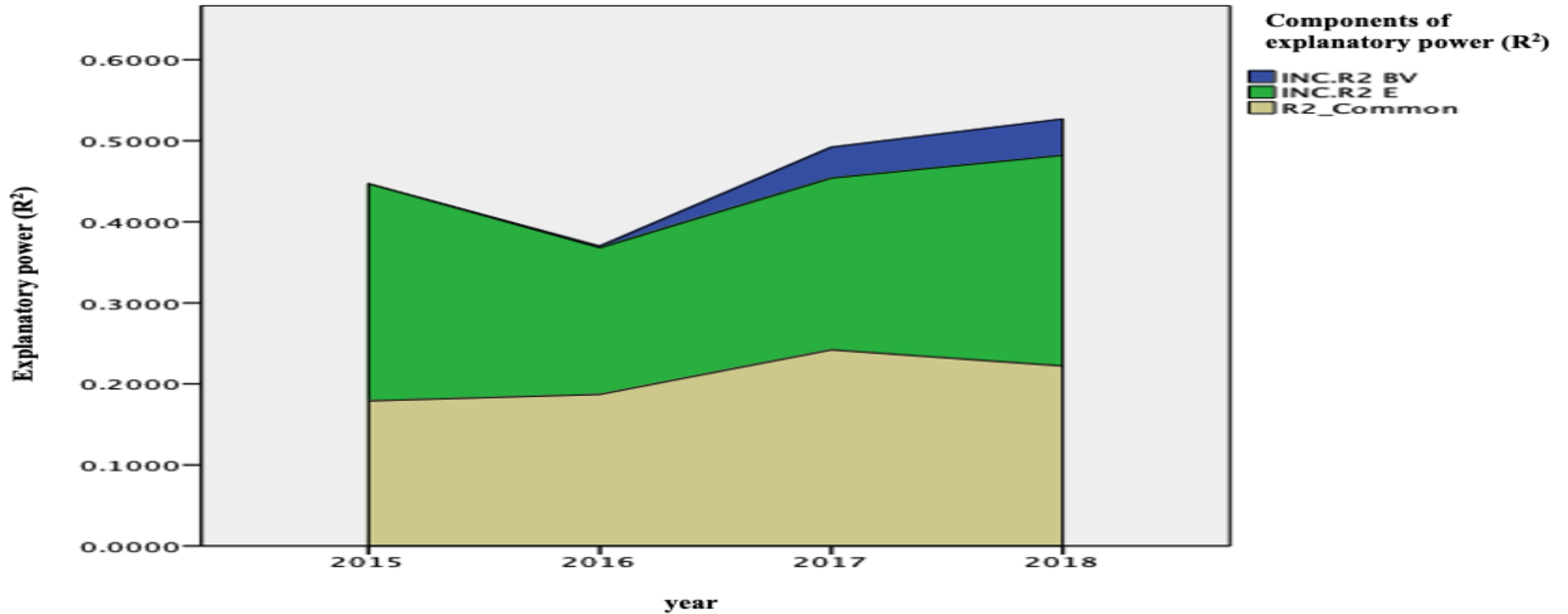
Panel C: The potential change in the regression coefficients of EPS and BVPS due to IFRS adoption

$$P_{it} = b_0 + b_1 DV_{IFRS} + b_2 EPS_{it}^{IFRS \& Saudi \ GAAP} + b_3 BVPS_{it}^{IFRS \& Saudi \ GAAP} + b_4 EPS_{it}^{IFRS \& Saudi \ GAAP} * DV_{IFRS} + b_5 BVPS_{it}^{IFRS \& Saudi \ GAAP} * DV_{IFRS} + e_{it}$$

Accounting standards	Year	N	EPS*DV_IFRS	BVPS*DV_IFRS	R ²
IFRS and Saudi GAAP	2015-2018	440	0.692	0.551*	45.7%**



Change in the explanatory power R² components





Additional analysis

Based on the prior literature firms with certain characteristics have different value relevance results and impacted differently by the adoption of IFRS.

These selected characteristics include: firm's profitability, audit quality, and firm's size.

Characteristic	Acronym	Measurement
Firm sizes	SIZE	The book value of total assets
Audit quality	BIG_4	Audit firm size
profitability (Earnings sign)	EARNINGS_ SIGN	Earnings sign



Firm characteristics results

Panel A: Profit-making vs. Loss-making firms

$$P_{it} = a_0 + b_1 BVPS_{it} + b_2 EPS_{it} + e_{it}$$

Accounting standards	Profit-making firms (N=341)				Loss-making firms (N=99)				Cramer test
	N	BVPS	EPS	R ²	N	BVPS	EPS	R ²	
Saudi GAAP	180	0.28	7.48**	59%**	40	0.158	-1.442	-4.30%	10.114**
IFRS	161	0.558**	10.815**	72.2%**	59	0.335	-0.631	-0.40%	12.918**

Panel B: Big 4 vs. Non-Big 4 firms

$$P_{it} = a_0 + b_1 BVPS_{it} + b_2 EPS_{it} + e_{it}$$

Accounting standards	Big 4 firms (N=198)				Non-Big 4 firms (N=242)				Cramer test
	N	BVPS	EPS	R ²	N	BVPS	EPS	R ²	
Saudi GAAP	112	0.46	6.53**	63.6%**	108	0.139	2.139	6.5%**	8.779**
IFRS	86	0.763**	9.807**	80.1%**	134	0.639*	3.012**	21%**	8.945**

Panel C: Large vs. Small firms

$$P_{it} = a_0 + b_1 BVPS_{it} + b_2 EPS_{it} + e_{it}$$

Accounting standards	Large firms (N=160)				Small firms (N=160)				Cramer test
	N	BVPS	EPS	R ²	N	BVPS	EPS	R ²	
Saudi GAAP	80	0.699	4.597**	59.7%**	80	0.186	4.265*	18.4%**	4.369**
IFRS	80	0.781**	8.384**	63.9%**	80	0.953*	1.868	16.7%**	5.23**



Summary of the results

- The accounting information are value relevant to equity investors in making investment decision during both periods as indicated by the yearly explanatory power R^2 values which are statistically significant at the 1% level (H1 is accepted).
- The joint value relevance of accounting information did not significantly increase following IFRS adoption as indicated by both the Cramer and Vuong Z-statistic values for the pre and post method and comparative year methods respectively (H2 is accepted).
- The individual value relevance of earnings is always significant as indicated by the regression coefficients on EPS. However, the individual value relevance of book values of equity is only significant during IFRS period.
- We find that profit-making firms, firms audited by Big4 and large firms always exhibit significantly higher joint value relevance (R^2) compared to their counterparts regardless of the implemented accounting standards.
- The results of all sub-samples confirm our main findings that IFRS has a positive influence only on the value relevance of BVPS.
- IFRS-based accounting information of firms audited by Big4 achieved the highest level of value relevance among all sub-samples.



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Conclusion

- Despite the Saudi Stock Market being an emerging and inefficient market, investors are rational when it comes to the use of accounting numbers for making investment decisions.
- The adoption of IFRS revived the role of the balance sheet (BVPS) which used to be ignored under the Saudi GAAP.
- Investors in Saudi Arabia have more confidence in accounting information of large firms, profit-making firms, firms audited by Big4 regardless of accounting standards being applied.
- Investors do not rely on accounting information of loss-making firms at all.
- Investors place a greater weight on IFRS-based accounting information when being audited by Big4 firms.



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Implication

- The results should be of particular importance to IASB since it assesses the two fundamental qualitative characteristics of accounting information that are specified in the IASB conceptual framework.
- The findings should have implication to accounting standards setters who would be interested in whether the transition to IFRS, as implemented in Saudi Arabia up to 2018, has improved the accounting quality
- The results could have implications to the auditing firms in Saudi Arabia on how the market participants perceived the accounting information they have audited pre and post IFRS implementation.
- The results should also motivate firms exhibiting low value relevance to advance their knowledge about IFRS and undertake training programs
- Empirical researchers may be interested in adopting the research methodology employed in this study by conducting the analysis using both the pre/post method and comparative year method.



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Future work

- Future studies may consider other accounting information quality metrics (e.g., Accrual quality, Persistence, Predictability, Smoothness “accounting-based metrics”, Timeliness and Conservatism “market-based metrics”).
- Investigating the long-term impact of IFRS adoption should provide a more complete picture by giving it time to be fully implemented and to take effect.
- Investigating the economic consequences (e.g., The acquisition cost of analysts’ information, liquidity, market efficiency, foreign direct investment (FDI)) following IFRS adoption could be another venue for researches interested in the experience of Saudi Arabia.
- Conducting a comparative study of the impact of IFRS adoption by including other GCC countries (similar institutional factors) is worth investigating to provide generalizable results.



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Thank you