THE HOME COUNTRY INSTITUTIONAL QUALITY AND INVESTOR RECOGNITION BENEFITS OF CROSS LISTED FIRMS: EVIDENCE OF CROSS LISTED FIRMS FROM BRICS COUNTRIES

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Abstract : While cross listing is an integral part of firm visibility, no attention has been drawn whether the firm home country institutional quality influences investor behaviour after foreign financial market integration. This study examined the relationship between the institutional quality of the firm home country and investor recognition of cross-listed firms from emerging markets countries. Using data of cross-listed firms from the BRICS bloc between 2000 to 2020, we find that changes in investor recognition of cross listed firms are strongly related to the signal of the institutional quality perceptions in the firm home country in the long and short run after foreign financial market integration. This study highlighted the significance of the information environment of the home country in explaining the Investor Recognition Hypothesis (IRH) of cross listing.

Keywords : Institutional quality, Cross listing, Investor recognition hypothesis (IRH), Emerging market, BRICS

INTRODUCTION

The cross listing of firms on foreign financial market has proved to be an important aspects of investor recognition (Baker et al., 2002, King and Segal, 2009, Dodd, 2013). The general conclusion from these literature studies indicated that a firm decision to cross list form a corporate strategy to improve investor protection, firm visibility and awareness on the global financial market. This bonding strategic move by the firm manager to cross lists aligns with the principles of investor recognition hypothesis (IRH) by Merton (1987), where cross-listing is seen as a means to widen shareholder base through an enhanced firm visibility and attraction of new investors who were previously unaware of the company (Coffee Jr, 2002). The Merton (1987) investor recognition hypothesis (IRH) asserts that the institutional environment and flow of information costs helps to explain investors behaviour under capital market equilibrium with incomplete information model which shows anomalous to the standard frictionless market model. Merton (1987) model relies on fundamental behavioural assumption positioning that investor who hold asset security maybe familiar with information surrounding the firm operations that reduces their risk and increases returns. Consequently, these informed investors require higher expected returns and engage in trading activities where compensation is provided for the elevated idiosyncratic risk associated with their positions. While cross listing literature provide empirical evidence for investor recognition hypothesis (IRH), there is no evidence whether the change in investor recognition of cross listed firms is influence

by information of the institutional quality of the home country.

In this paper, we aim to contribute to the existing literature by examining how the institutional quality of a firm home country that shapes investors behaviour of cross listed firms. According to Doidge et al. (2004), managers strategically choose to cross-list their firms on foreign financial markets, assuming the efficiency of the host market and seeking to enhance firm visibility for increased recognition from potential new investors. While managers aim to expand their shareholder base and improve trading activity in the home stock market, we argued that investors may share similar objectives in optimizing wealth accumulation. Investors may prefer firms from more favourable institutional environments within the global financial market as a means to safeguard their assets, minimize risk exposure and enhance investment returns.

This decision of investors can be motivated by desire to safeguard their assets, minimize risk exposure, and enhance investment returns. Hence, the information environment of the home country specific institutional quality signal could be considered as anomalous within framework of the Efficient Market Hypothesis (EMH). Also home market bias literature posited that information environment plays a substantial role in shaping investor behaviour and decisions regarding the acquisition and trading of assets within a particular firm (Kim and Cheong, 2015). Given importance of the home country information environment on investors behaviour, this study aims to investigate whether the information derived from institutional quality of the firm home country impact investor recognition of cross-listed firms.

In testing IRH of cross listed firms, we considered the BRICS market. Thus far, IRH, among emerging markets, are still debatable as proponents of cross listing benefits (Wanjiru, 2013, Hacibedel, 2018, Wang et al., 2021). Among emerging economies, the BRICS countries collectively constitute the largest emerging market, characterized by a shared vision of achieving developed market status (O'neill, 2001). While emerging market countries often face institutional voids, including deficiencies in legal systems, protection of property rights, contract enforcement, financial markets regulation, governance mechanisms among others (Khanna and Palepu, 2010, Liedong et al., 2020), the BRICS countries have diverse economic structures ranging from resource-driven economies to service and manufacturing-driven economies over the last decade. This diversity in the BRICS economic structure and institution environments can improve cross listed firm information environments and serve as a means through which the investor recognition and bonding of firm on the foreign financial market. This emerging market countries institutional environment may contribute to an increase or reduce the uncertainty, transaction costs and thereby hindered investor confidence (Ghoul et al., 2017).

The objective of the study was to test the hypothesis of whether the institutional quality of the firm home country impact the investor recognition changes of cross-listed firms. This study extends the literature in four ways. First, we analyse the institutional quality perception of the home country effects on investor recognition of cross-listed firms from Brazil, Russia, India, China, and South Africa's (BRICS) emerging economies.

Second, we test robustness measure of investors' recognition of cross listed firms in two different ways using the institutional ownership and trading volume of outstanding shares. By employing multiple measures of investor recognition, we enhance the reliability and validity of the findings. Third, this study assesses the short run (during the listing year) using the cross-sectional model and the long run (3 years after the cross-listing year) panel regression model of investor recognition benefits of cross-listed firms from the BRICS countries. According King and Segal (2009), investor recognition during and after foreign market integration tends not to be permanent. Therefore, we analyse the long run and short run effects of investor recognition, and the institutional quality perception of firm cross-listed firms. The study is built on the intuition that a firm's home market institutional environment is important for the firm's financial development and may affect the change of shareholder base of cross-listed firms on the global financial market.

The findings, based on cross-sectional regression for the short run (during the listing year) and panel regression for the long run (3 years after the cross-listing year), that changes in investor recognition of cross listed firms are strongly related to institutional quality perceptions in the firm home country in the long and short run after foreign financial market integration.

This paper is organized as follows. Section 2 provides a more detailed description of literature review and hypothesis development on the investor recognition and institutional quality of cross listing. Section 3 describes our data, investor recognition measures, institutional quality measures and methodology. Section 4 presents our empirical findings of the study results 5 concludes. Section 6 provide the conclusion and recommendation of the study.

LITERATURE REVIEW

Investors recognition and institutional quality of cross listing

The idea that the information environment explains the significant role of investor behaviour has been well documented in financial market development of cross listing (Lang et al., 2003, Fernandes and Ferreira, 2008, Dodd and Gilbert, 2016). Merton's (1987) IRH model explains that investor trading behaviour deviates from the normal fractional market model. Merton's model assumes that investors invest in the securities of a company which they have enough information, and that these subsets differ across investors. This assumption means that some stocks are known to relatively few investors. Specifically, because of information costs, a class of investors is assumed to have incomplete information or information constraint. This information cost is likely going to affect investors' trading behaviour activity of a firm security. Merton (1987) provides an extension of his basic model that examines the impact of choice of investor recognition on a firm. This extension indicates that changes in investor recognition will be positively correlated with all firm information availability.

Consistent with investor recognition hypothesis, evidence suggests that cross listing information is significant to changes in investors' recognition (Baker et al., 2002, King and Segal, 2009, Dodd, 2013). While studies observed the relationship between cross listing and investor recognition, the changes in investor recognition of cross listed firms remain unexplained by information value of institution

environments. The home market bias literature commonly posits that institutional information exerts a significant influence on investor behaviour, impacting their decisions regarding the acquisition and trading of assets within a particular firm (Kim and Cheong, 2015). Specifically, evidence suggests that emerging markets are characterized by institutional difference (Khanna and Palepu, 2010, Liedong et al., 2020). Hence, we hypothesise that:

H1: *The institutional quality of the home country is positively related to investor recognition of cross-listed firms during the listing year.*

Consistent with King and Segal (2009), that the duration or longevity of information value is associated with investor recognition of cross listed firms. Hence, we hypothesise that:

H2: *The institutional quality of the firm home country is positively related to investor recognition of cross-listed firms in the subsequent years following the cross-listing year.*

METHODOLOGY

Investor recognition measures

The investor recognition measures various indicators and metrics that can be used to assess the level of investor recognition through market interest in a particular company's stock. The measures of investor recognition after cross listing were examined and analysed in two different ways, including institutional ownership and trading volume of outstanding share following various studies (Agmon and Lessard, 1977, Foerster and Karolyi, 1999, Jain and Kim, 2006, Lehavy and Sloan, 2008, King and Segal, 2009, Bodnaruk and Ostberg, 2009, Meng et al., 2020).

Using the institutional ownership as a measure of investors' recognition, institutional ownership measures the percentage of a company's shares held by institutional investors, such as mutual funds, pension funds, and insurance companies (Lehavy and Sloan, 2008, Bodnaruk and Ostberg, 2009). According to Merton's (1987) seminal work, the concept of shareholder base pertains to the extent to which the company is acknowledged by investors within the economy. We computed yearly investor recognition as a change in institutional ownership of cross listed firm, considering that an increasing number of institutional ownerships signifies greater investor recognition and confidence in the company's prospects (Jain and Kim, 2006, Lehavy and Sloan, 2008, Bodnaruk and Ostberg, 2009). Higher institutional ownership suggests that professional investors are interested in the company and consider it a valuable investment opportunity and vice versa.

Using trading volume of outstanding share as a measure of investors' recognition, trading volume of outstanding shares provides insights into the level of investor activity and market interest for a particular stock. Trading volume measures the number of shares traded in each period and outstanding shareholders typically include both individual investors and institutional investors. Trading volume suggests liquidity and heightened investor interest in a stock (Meng et al., 2020). Merton (1987) provides a comprehensive important detail shareholder base which pertains to the extent of investor recognition a company possesses within the economy. We computed yearly trading volume of outstanding share microstructure of investor recognition (w) of firm i can be expressed as follows:

$$W_i = \frac{\Delta V_i^c}{\Delta OS_i^c}$$

where ΔV_i^c is an indicator function of percentage change in trading volume of company i in country c. The ΔOS_i^c is the change in the number of outstanding shareholders which include both individual investors and institutional investors of company i in country c. Increased trading volume suggests improved liquidity and heightened investor interest in a stock (Meng et al., 2020) which can be influenced by the total shareholders base. Higher trading volume outstanding share suggests that more investors are actively buying and selling the company's shares, potentially reflecting increased investor recognition and market participation. The analyses of trading volume and outstanding shares of cross listed firm provide the overall detail of the firm market and understanding of investor behaviour.

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Institutional quality measures

The institutional quality measures for the BRICS countries were obtained from the World Bank Governance Indicators, encompassing six governance indicators: Control of Corruption Perception Index, Government Effectiveness Perception Index, Political Stability and Absence of Violence Perception Index, Regulatory Quality Perception Index, Rule of Law Perception Index, and Voice and Accountability Perception Index. These indicators, widely used in various studies, serve as benchmarks to assess governance quality (Ojeka et al., 2019, Kunčič, 2014, Dollar and Kidder, 2017). The measures of World Bank institutional quality indicators range from -2.5 to 2.5, with a lower score value indicating severe problems and a higher score value indicating good governance. Following studies of Ojeka et al. (2019), we calculated the average perception of institutional quality in the home market of cross-listed firms for each year of listing. We first collected the lower score value ranges from 0 to -2.5 and higher score value ranges from 0 to 2.5 of the data from the six governance indicators which are regulatory quality, government effectiveness, political stability, the rule of law, control of corruption, voice and accountability, and rescaled it in consistent with study of Ojeka et al. (2019). The data measurement of institutional quality indices indicators ranges from -2.5 to 2.5, with a lower score value indicating severe problems and a higher score value indicating good governance. We used the Principal Components Analysis (PCA) to construct a composite institutional quality measure following previous studies (Nxumalo and Makoni, 2021, Kamah et al., 2021) and is reported in Appendix 1. We first collected the score value ranges from -2.5 to 2.5 of the data of six indices and we created a composite institutional quality index by applying PCA. The PCA facilitates the orthogonal linear transformation of high-frequency measures to create a single index, formalizing the study's goal (Kamah et al., 2021, Yang et al., 2022). The PCA accounts for orthogonality by addressing the issue of multicollinearity among the composite variables. Hence, this study aimed to investigate whether the information environment of the firm home country institutional quality contributes to investor recognition of cross-listed firms from the BRICS nation.

Methodology

To analyse whether the firm home country institutional quality information enhanced investor recognition of cross listed firms from the from BRICS market during the

listing year (short run), we employed the following cross sessional model:

$$\Delta \boldsymbol{Investors\ Recognition}_i^{\boldsymbol{short\ run}} = \boldsymbol{\psi_0 + \psi_1 Lag\ IQ}_{i,c} + \boldsymbol{\psi_2 Con\_v_i} + \boldsymbol{u_i}$$

Where $\Delta \boldsymbol{Investors\ Recognition}_i^{\boldsymbol{short}}$is the investor recognition measure with institutional ownership (Aggarwal et al., 2015) and trading volume of outstanding share (Agmon and Lessard, 1977, Foerster and Karolyi, 1999, Jain and Kim, 2006, Lehavy and Sloan, 2008, King and Segal, 2009, Bodnaruk and Ostberg, 2009, Meng et al., 2020) as a dependent variable of firm i during cross listing year (short run), while referring to Merton (1987) of investor recognition hypotheses (IRH). The regression includes c country-related variables. The $\boldsymbol{Lag\ IQ}_{i,c}$is lag of institutional quality in domestic market of cross listed firms using average composition of six perception indices of regulatory quality, government effectiveness, political stability and absence of violence, the rule of law, control of corruption, voice and accountability of country of firm i during cross listing year (short run). Following the study of Millar et al. (2005) and Ojeka et al. (2019), this study adopted the average institutional quality measures as an explanatory variable. The 〖Con_v〗_i refers to control variables of firm specific factors. This study control for firm specific variable including firm performance (proxy with Tobin q and return on assets), firm size and firm leverage that are most likely to influence operation of a firm in given year of cross listing. The firm-specific information may also affect the benefit of cross-listing (Arellano et al., 2012). An investors' recognition of cross-listing may vary with the firm specifics. For example, larger firms tend to experience greater investor attention than smaller firms. Beck et al. (2008) state that the size of the firm influences firm financial development from emerging market countries. The u_i is the error term.

For the long run (3 years after the year cross listed) effects of the domestic market institutional quality on investors recognition of cross-listed firms from BRICS market, the following panel regression model is specified (Khan et al., 2020, Zakaria and Bibi, 2019).

$$\Delta \boldsymbol{Investors\ Recognition}_{it}^{\boldsymbol{Long\ run}} = \boldsymbol{\psi_0 + \psi_2 Lag\ IQ}_{it,c} + \boldsymbol{\psi_2 Con\_v_{it}} + \boldsymbol{u_{it}}$$

Where $\Delta \boldsymbol{Investors\ Recognition}_{it}^{\boldsymbol{Long}}$ is the investor recognition measure with institutional ownership and trading volume of outstanding share (Agmon and Lessard, 1977, Foerster and Karolyi, 1999, Jain and Kim, 2006, Lehavy and Sloan, 2008, King and Segal, 2009, Bodnaruk and Ostberg, 2009, Meng et al., 2020), as a dependent variable of firm i during the first three years after cross listing year t. The $\boldsymbol{Lag\ IQ}_{it,c}$ is lag of institutional quality in domestic market of cross listed firm using average composition of six perception indices of regulatory quality, government effectiveness, political stability and absence of violence, the rule of law, control of corruption, voice and accountability of country of firm i during cross listing year (long run).

RESULT AND DISCUSSION

Descriptive statistics

We report the short run (during cross listing year) and long run (3 years after cross listed year) of investor recognition of cross listed firms from Brazil, Russia, India, China, South Africa, as well as the whole BRICS countries' descriptive statistics, are provided in the panel table. In Panel A, we

report the descriptive summary statistics of investor recognition of cross listed firms from BRICS market. The value of the investor recognition of cross listed firms from the BRICS countries during cross listing year using institutional ownership and trading volume of outstanding share is 50% and 18%, respectively. For the long run, the value of the investor recognition of cross listed firm from BRICS countries in 3 years after the cross-listing year using institutional ownership and trading volume of outstanding share is 51% and 18%, respectively.

In Panel B, we report the descriptive results of microstructure investor recognition of cross listed firms from Brazil. The value of investor recognition of cross listed firms using institutional ownership and trading volume of outstanding share is 51% and 18%, respectively. For the long run, the average value of microstructure of investor recognition of cross listed firm from Brazil in 3 years after the cross-listing year using institutional ownership and trading volume of outstanding share is 56% and 18%, respectively.

In Panel C, we report the descriptive summary investor recognition of cross listed firms from Russia. The value of investor recognition of cross listed firms during cross listing year using institutional ownership and trading volume of outstanding share is 53% and 17%, respectively. For the long run, the value of liquidity changes of cross listed firm from Russia in 3 years after the cross-listing year using institutional ownership and trading volume of outstanding share is 49% and 17%, respectively.

In Panel D, we report the summary statistics of investor recognition of cross listed firms from India. The value of investor recognition of cross listed firm from Indian during cross listing year using institutional ownership and trading volume of outstanding share is 35% and 18%, respectively. For the long run, the value of investor recognition of cross listed firms from India in 3 years after listing year using institutional ownership and trading volume of outstanding share is 57% and 18%, respectively.

In Panel E, we report the summary descriptive results of investor recognition of cross listed firms from China. The value of investor recognition of cross listed firms from China during cross listing year using institutional ownership and trading volume of outstanding share is 41% and 19%, respectively. For the long run, the value of investor recognition of cross listed firms from China in 3 years after the cross-listing year using institutional ownership and trading volume of outstanding share is 42% and 19%, respectively.

In Panel F, we report the summary statistics of investor recognition of cross listed firms from the South African market. The value of investor recognition during cross listing year using institutional ownership and trading volume of outstanding share is 53% and 18%, respectively. For the long run, the value of investor recognition of cross listed firms from South Africa in 3 years after listing year using institutional ownership and trading volume of outstanding share is 58% and 18%, respectively.

Panel A: Observation short run and long run of investor recognition of BRICS firms after cross listed.					
Short Run	**Observation**	**Mean**	**Std. dev**	**Min**	**Max**
Institutional Investors	237	50.087	26.290	0	124.36
Trade volume-Out shares	381	17.793	1.4476	6.9438	20.782
Long Run					
Institutional Investors	743	51.118	26.517	0	141.26
Trade volume-Out shares	1,074	17.908	1.3710	5.5576	20.812
Panel B: Observation short run and long run of investor recognition of Brazil firms after cross listed					
Short Run	**Observation**	**Mean**	**Std. dev**	**Min**	**Max**
Institutional Investors	59	58.386	24.548	2.5460	107.78
Trade volume-Out shares	96	17.983	1.6778	6.9438	20.782
Long Run					
Institutional Investors	189	55.493	23.625	0.2420	92.573
Trade volume-Out shares	261	17.991	2.0073	5.5576	20.782
Panel C: Observation short run and long run of investor recognition of Russia firms after cross listed					
Short Run	**Observation**	**Mean**	**Std.dev**	**Min**	**Max**
Institutional Investors	31	52.651	31.160	1.071	124.36
Trade volume-Out shares	35	16.495	1.7473	10.269	19.432
Long Run					
Institutional Investors	93	48.533	29.480	0.1560	90.002
Trade volume-Out shares	102	16.979	1.2572	12.957	18.903
Panel D: Observation short run and long run of investor recognition of India firms after cross listed					
Short Run	**Observation**	**Mean**	**Std. dev**	**Min**	**Max**
Institutional Investors	27	35.254	24.295	**0**	89.007
Trade volume-Out shares	57	17.939	1.6227	9.7770	20.671
Long Run					
Institutional Investors	104	39.47954	25.6237	**0**	92.427
Trade volume-Out shares	168	18.10584	1.101691	13.83117	20.81161
Panel E: Observation of China firms liquidity change after cross listed in short run and long run					
Short Run	**Observation**	**Mean**	**Std. dev**	**Min**	**Max**
Institutional Investors	41	40.45834	23.38942	.803	77.17
Trade volume-Out shares	46	18.98866	0.739561	17.1222	20.646
Long Run					
Institutional Investors	116	42.2185	22.912	0.1360	85.598
Trade volume-Out shares	121	18.999	0.7068	17.457	17.457
Panel F: Observation of South Africa firms' liquidity change after cross listed in short and long run					
Short Run	**Observation**	**Mean**	**Std. dev.**	**Min**	**Max**
Institutional Investors	79	52.949	24.585	2.3390	116.95

Trade volume-Out shares	147	17.5470	0.8859	**14.773**	18.938
Long Run					
Institutional Investors	241	57.990	26.610	3.1350	141.26
Trade volume-Out shares	422	17.689	0.8248	18.956	18.956

ANALYSIS OF THE FINDINGS

The home country institutional quality and investor recognition of cross listed firms

In this section, we analysed the hypothesis that institutional quality of the firm home country is positively related to investor recognition of cross-listed firms during the listing year (short run). We provided the initial outlook of BRICS countries' institutional quality perception index in the scatter plot graph in Figure 1, from 2000 to 2020. The institutional quality perception index scatter plot graph shows that South Africa exhibits a stronger high scores value of governance quality. This suggests that South Africa's institutional environment is relatively favourable, which may have positive implications for the investor confidence of cross-listed firms from South Africa. Brazil, on the other hand, hovers between low-high scores value of institutional quality. The varying scores suggest that the effectiveness and reliability of governance quality in Brazil may fluctuate over time.

In contrast, Russia, India and China consistently maintain a relatively low level of governance quality scores throughout the analysed from 2000 to 2020. This implies that these countries have weaker institutional environments, as compared to South Africa and Brazil, which could have implications for investor recognition benefits of cross-listed firms from these countries.

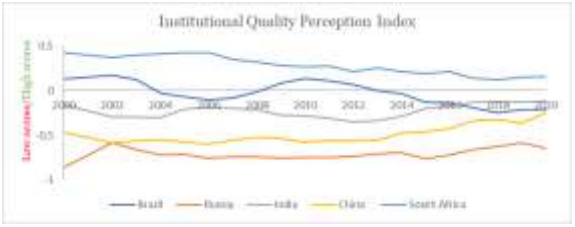

Figure 1: Institutional quality perception index of BRICS

Table 1 shows that the institutional quality in the firm home country is statistically significant and positively related to investor recognition measured with institutional ownership and trading volume of outstanding share changes of cross-listed firms from the BRICS market during the listing year (short run). This finding demonstrates that the favourable institutional environment in the firm home country can help to reduce firm asymmetric information and improve the shareholder base of cross listed firm in emerging market countries. This indicated that stronger institutional environment of emerging market country can reduce the information cost and improve benefits of cross listed firms in the international financial market. The investors perceive firms from countries with stronger institutional quality as more attractive because reduces their risk and increase return leading to higher engagement in the stock market trading activities of cross listed firms in the home market.

Table 1 shows the result of home country institutional quality and investor recognition of the cross listed firms during the listing year of firms from the BRICS emerging market countries.

Investor Recognition	**Institutional Investor**		**Trade Volume-Out shares**	
	Coefficient	**t-value**	**coefficient**	**t-value**
Lag IQ	0. 7417***	3.22	0.5056**	1.99
Log Firm Size	0.0462 2	1.20	0.1219***	2.77
Firm Leverage	0.0953	1.49	0.1213*	1.69
Tobin Q	-0.3456**	-2.00	-0.1901**	-1.96
Return on assets	-0.0038	-0.37	-0.0058	-0.55
Constants	3.2373***	8.29	16.582***	36.65
Observation	187		313	
Prob > F	0.0021		0.0015	
Adjusted R-square	0.0731		0.0463	

Notes ***, **, and * indicate significance at the less than 1%, 5%, and 10% level, respectively. Heteroskedasticity-corrected t-statistics are in parentheses.

Table 2, we observed the hypothesis that the institutional quality of the home country is positively related to investor recognition of cross-listed firms in the subsequent years following the cross-listing year (long run). The results show that the firm home country institutional quality perception is statistically significant and positively related to investor recognition proxy with institutional ownership and trading volume of outstanding share. The findings show that institutional quality plays a crucial role in determining long-term increase in shareholder base of cross-listed firms from emerging market countries. Consistent with (Baker et al., 2002, King and Segal, 2009), the long run effects of investor recognition benefits of cross listed firms highlights the importance of the firm home country institutional environment on cross listed firms in sustaining investor confidence and recognition overtime.

Overall, the findings show that the change in the investor recognition of cross listed firms from the BRICS emerging market can be explained the institutional quality perception of the home country a finding consistent with Merton (1987) Investor Recognition Hypothesis (IRH).

Table 2 shows the result of home country institutional quality and investor recognition of cross listed firms, 3 years after listing year of firms from the BRICS emerging market countries.

Investor Recognition	**Institutional Investor**		**Trade Volume-Out shares**	
	Coefficient	**t-value**	**coefficient**	**t-value**
Lag IQ	0.8942***	7.48	0.4021***	2.76
Log Firm Size	0.0714***	4.02	0.1477***	6.30
Firm Leverage	0.0253	0.85	0.1479***	3.99
Tobin Q	-0.0784	-1.03	0.1188*	1.84
Return on assets	-0.0017	-0.41	-0.0149***	-3.55

Constants	3.1583***	17.72	16.302***	69.92
Observation	706		1,010	
Prob > F	0.0000		0.000	
Adjusted R-square	0.0756		0.0686	

Notes ***, **, and * indicate significance at the less than 1%, 5%, and 10% level, respectively. Heteroskedasticity-corrected t-statistics are in parentheses.

CONCLUSIONS

This study documented the home country institutional quality and investor recognition of cross listed firms from BRICS emerging market countries. The study utilized data from the firms in the BRICS countries, between 2000 and 2020, employing institutional ownership and trading volume outstanding share as a measure of investor recognition microstructure behaviour of cross listed firms. The analysis of investors' recognition focused on the short-run effects during the listing year and long-run effects over a three-year period following cross-listing. This study showed that institutional quality perception in the firm home country is statically positive and significantly related to investor recognition benefits of cross listed firms in the short and long run. In contrast to post cross-listing investor recognition's assumption of fractional market model, we found the home country institutional quality associated with improvements of shareholder base of cross-listed firms in the short-run (during the cross-listing year) and in the long-run (3 years after the cross-listing year), consistent with Merton's (1987) investor recognition hypothesis (IRH) assertion.

This study highlighted the importance of firm home country institutional quality on financial market development of cross listed firms in foreign financial market clusters. Particularly, policy makers in the BRICS bloc should improve governance quality in their home country to attract stock market development to avoid diversion of host market trading activity of cross listed firms that has direct consequences on the stock market liquidity in the home country.

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Appendix I

Panel B: Principal component analysis (Institutional Quality)

Brazil	Component	Eigenvalue	Difference	Proportion	Cumulative
	Comp1 |	3.4263	2.3969	0.5710	0.5710
	Comp2 |	1.0294	0.1560	0.1716	0.7426
	Comp3 |	0.8733	0.5397	0.1456	0.8882
	Comp4 |	0.3336	0.0399	0.0556	0.9438
	Comp5 |	0.2936	0.2498	0.0489	0.9927
	Comp6 |	0.0438	0.0000	0.0073	1.0000
Russia	Component	Eigenvalue	Difference	Proportion	Cumulative
	Comp1 |	3.1900	1.9261	0.5317	0.5317
	Comp2 |	1.2639	0.5462	0.2106	0.7423
	Comp3 |	0.7178	0.2415	0.1196	0.8619
	Comp4 |	0.4763	0.2173	0.0794	0.9413
	Comp5 |	0.2590	0.1660	0.0432	0.9845
	Comp6 |	0.0930	0.0000	0.0155	1.0000
China	Component	Eigenvalue	Difference	Proportion	Cumulative
	Comp1	3.0397	1.5388	0.5066	0.5066
	Comp2	1.5008	0.7129	0.2501	0.7567
	Comp3	0.7880	0.3772	0.1313	0.8881
	Comp4	0.4108	0.2050	0.0685	0.9565
	Comp5	0.2058	0.1508	0.0343	0.9908
	Comp6	0.0550	0.0000	0.0092	1.0000
India	Component	Eigenvalue	Difference	Proportion	Cumulative
	Comp1 |	3.7089	2.4782	0.6182	0.6182
	Comp2 |	1.2307	0.7095	0.2051	0.8233
	Comp3 |	0.5212	0.1449	0.0869	0.9101
	Comp4 |	0.3763	0.2803	0.0627	0.9728
	Comp5 |	0.0960	0.0289	0.0160	0.9888
	Comp6 |	0.0671	0.0000	0.0112	1.0000
South Africa	Component	Eigenvalue	Difference	Proportion	Cumulative
	Comp1 |	2.8184	0.9173	0.4697	0.4697
	Comp2 |	1.90115	1.0070	0.3169	0.7866
	Comp3 |	0.894159	0.6741	0.1490	0.9356
	Comp4 |	0.220074	0.1304	0.0367	0.9723
	Comp5 |	0.0896503	0.0131	0.0149	0.9872
	Comp6 |	0.0765682	0.0000	0.0128	1.0000