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The Key Reasons for Cross - Listing in East African Stock Exchanges by Firms Listed in the Nairobi Securities Exchange

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Abstract

The purpose of this study was to investigate the key reasons behind the decision by the firm management of Nairobi Securities Exchange (NSE) listed firms to cross-list in East African Exchanges. The study employed a descriptive research design. A Likert type questionnaire was administered to the Chief Executive Officers (CEOs) or the Chief Financial Officers (CFOs) of the target firms. The study conducted factor analysis to identify the key reasons for the cross-listing in the East African region. The key reasons identified were investor recognition, expansion of business, boosting of sales and desire to lower the cost of capital. The factor analysis did not provide evidence that legal bonding is a motivation for the cross-listing by NSE firms. The findings from the study appear to indicate that there may exist contextual differences in the decisions to cross-list, consequently generalizations may not suffice.

Keywords: cross-listing, bonding, growth opportunities, investor recognition analyst coverage

1. Introduction

The motivation for cross-listing has attracted interest from many scholars who have attributed the phenomena to a number of reasons, and various studies provide different levels of empirical evidence in support of these reasons. Merton (1987) put forth the visibility/investor recognition hypothesis to explain the motivation for cross-listing. According this hypothesis, increased visibility and investor recognition occasioned by cross-listing increases investor base resulting in lower expected returns and hence increased firm value. This view is supported by empirical studies by Mitoo (1992) Fanto and Karmel (1997) Bancel and Mitoo (2001), Baker *et al.,* (2002), Lang *et al.,* (2003), King and Segal (2006). Baker (1992) further argued that increased visibility can boost corporate marketing efforts by broadening product identification among investors and consumers in the host country.

Domowitz *et al*., (1998) suggested the analyst coverage hypothesis, which predicts that an increase in trading activity resulting from cross-listing induces entry of analysts. This reduces base level volatility because opening prices are more informative leading to positive valuation effects. This is postulated to enhance price discovery. Empirical findings by Brockman and Chung (1999) support this view. Ahimud and Mendelson (1998) theorize that narrower spreads following cross-listing generate improved liquidity which lowers the cost of capital and increases share value. This position is supported by empirical findings by Peroti and Cordfunke (1997), Bris *et al.,* (2007), Eun and Sabherwal (2003) and Bris *et al.,* (2011). Stulz (1999) believes that cross-listing provides financial gains by enabling firms get more money from investors when they offer their stocks to the public. According to Karolyi (1998) cross-listing can also improve a firm's ability to effect structural transactions abroad such as stock swaps acquisitions and other tender offers.

Doidge *et al.,* (2004) on the other hand advanced the growth opportunities hypothesis, which posits that the main incentive for cross-listing is the desire to exploit growth opportunities. According to the hypothesis, firms with higher growth prospects are more likely to cross-list. This hypothesis postulates that high growth firms are likely to have positive valuation affects both pre and post cross-listing. This view is supported by empirical studied by Pagano *et al.,* (2002), Tolmunen and Torstila (2005) and Sarkissian and Schill (2011).

Coffee (1999 (Note 1) 2002) advanced the bonding hypothesis to explain the reason behind the decision of firms

to cross-list. He postulates that foreign firms from jurisdictions with potentially weaker investor (Note 2) protection can increase their valuation by bonding themselves to the US securities regime through cross-listing. Bonding hypothesis is supported by empirical studies by Facio *et al.,* (2001), Reese and Weisbach (2002) and (2004), Doidge *et al.,* (2004), (2005), King and Segal (2004) and Dyke and Zingales (2004). Licht (2003) has however put forth divergent theoretical views on the bonding hypothesis and argued that the bonding hypothesis is completely unfounded, and contends that instead of bonding most issuers of foreign securities may actually be avoiding better governance. Litvak (2007; 2008) finds a positive correlation between the cross-listing premia of cross-listed firms subject to U.S. and the indices of National Association of Securities Dealers Automated Quotations (NASDAQ) and of the Standard and Poor-500 and proposes the mimicry hypothesis to explain the observed correlation. The hypothesis posits that, the more a foreign firm trades on a host country, the more it is treated as a host country firm by the investors and the more its premium tracks the stock prices of the host country's firms.

All the reasons advanced have been interpreted from analysis of secondary data (accounting and financial information). None of the studies cited have analyzed the motivation for cross-listing from a survey of managerial reasons influencing the decision to cross-list. The purpose of this study was to investigate the key reasons that influenced the decision by the firm management to cross-list. A majority of cross-listings have been from relatively lesser developed markets to more developed markets with stricter regulations, as a consequence, most of the studies on cross-listing have tended to study the cross-listing behavior from this stand point. One of the most conspicuous resultant hypothesis for the cross-listing behavior has been the bonding hypothesis. The argument of this study is that the explanation for cross-listings in East Africa cannot be viewed from the stand point of the bonding hypothesis. Specifically the study postulated that the cross-listings in the East African region cannot be motivated by the desire for legal bonding; instead the study hypothesized that the desire to exploit growth opportunities was a more plausible reason.

2. Method

The study employed a descriptive research design because the purpose of the study was to explore and describe observed phenomena. There were 58 firms listed in the NSE at the time this study was carried out. The population of the study however consisted of 15 firms; seven firms that had cross-listed in either or all of East African Exchanges of Uganda, Tanzania and Rwanda, plus another eight firms with pending applications for cross-listing.

2.1 Materials

To determine the key reasons for the motivation for the cross-listings in the East African region, a questionnaire with a list of 22 potential reasons (Likert type) for cross-listing was administered to the CEOs/CFOs of the fifteen firms. The study conducted factor analysis to identify the key reasons for the cross-listing in the East African region. Factor analysis is primarily used for data reduction or structure detection. Since the focus of the study was on data reduction, the principal components method of extraction was used. This method begins by finding a linear combination of variables (a component/factor) (Note 3) that accounts for as much variation in the original variables as possible. It then finds another component that accounts for as much of the remaining variation as possible and is uncorrelated with the previous component, continuing in this way until there are as many components as original variables. Usually, a few components will account for most of the variation, and these components can be used to replace the original variables.

3. Results

As a precondition to using factor analysis, the study conducted the measure of sampling adequacy (MSA) test, which has become the standard test procedure for the factor analysis, the test statistics are reported in Table 1. Kaiser (1970) recommends a cut off of 0.50. Given that the sample MSA test score was 0.678, the factor analysis was found to be justifiable.

Table 1. Kaiser-meyer-olkin and Bartlett's test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.678
Bartlett's Test of Sphericity	Approx. Chi-Square	21.735
	df	14
	Sig.	0.000

The Scree plot presented in Figure 1 from the factor analysis output facilitates the determination of the number of factors to extract. Using the elbow rule, four components /factors (those above the asterix on the scree plot) were delineated for interpretation.

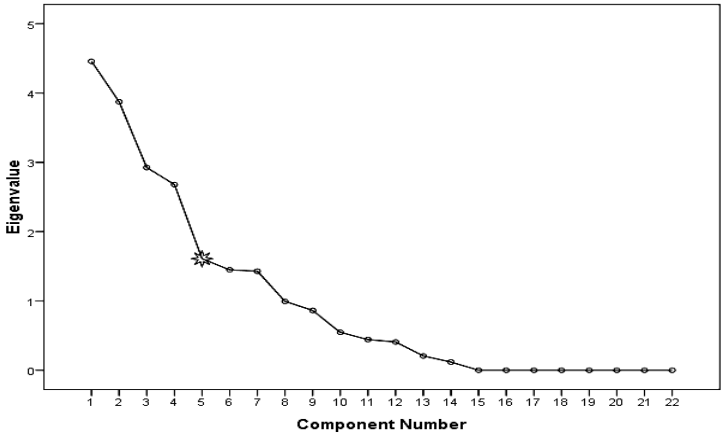

Figure 1. Scree plot

Table 2 presents the variation explained by the four extracted components /factors. The four components /factors combined explain 63.343% of the total variation. This means that they account for almost two thirds of the latent meanings in the original 22 variables.

Table 2. Total variance explained

	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.458	20.263	20.263	4.458	20.263	20.263	4.324	19.655	19.655
2	3.873	17.605	37.868	3.873	17.605	37.868	3.527	16.031	35.686
3	2.925	13.294	51.162	2.925	13.294	51.162	3.126	14.209	49.894
4	2.680	12.181	63.343	2.680	12.181	63.343	2.959	13.448	63.343
5	1.609	7.314	70.657						
6	1.448	6.584	77.241						
7	1.430	6.498	83.740						
8	.993	4.513	88.252						
9	.863	3.923	92.175						
10	.547	2.487	94.661						
11	.442	2.009	96.671						
12	.408	1.854	98.525						
13	.206	.936	99.461						
14	.119	.539	100.000						
15	*	*	100.000						
16	*	*	100.000						
17	*	*	100.000						
18	*	*	100.000						
19	*	*	100.000						
20	*	*	100.000						
21	*	*	100.000						
22	*	*	100.000						

The next step was that of discerning the meanings that are represented by the four components. This is done though picking out the variables that have the highest correlation with the factor and determining what they represent collectively. A rotated component matrix helps in this process. The study used the varimax method of rotation with Kaizer normalization. From the component rotation matrix presented in Table 3 the variables with the highest correlation with component 1 were "*To increase investor base, 0.958"* and *"To increase visibility, 0.867"* the study inferred this to represent investor recognition. Component 2 was highly correlated with *"To exploit growth opportunities, 0.876*" and *"To facilitate mergers and acquisitions 0.740"* the study interpreted this to represent expansion of business. Component 3 was highly correlated with *"To broaden product identification, 0.723"* and *"To boost corporate marketing efforts, 0.846"* the two were taken to represent boosting of sales. Component 4 was highly correlated with *"To reduce the cost of capital, 0.711"* and "*Access to external capital, 0.777"* these were taken to represent lower cost of capital.

Table 3. Rotated component matrix

Variables	Component			
	1	2	3	4
To facilitate mergers and acquisitions	.029	.740	-.376	.199
To facilitate better price discovery	-.129	-.040	-.056	-.331
To broaden product identification	.136	-.094	.723	.156
To reduce the cost of capital	.076	-.332	.425	.711
To fend off competition	.221	-.080	-.662	-.028
To take advantage of favorable tax laws	.340	-.092	.437	-.208
To improve corporate governance image	-.470	.304	-.115	-.173
To signal positive future prospects	.248	-.269	-.182	-.380
To invest excess cash flows	-.712	-.157	-.194	-.143
To mitigate expropriation of private benefits	.441	.284	.256	-.433
To take advantage of low production costs	-.337	.341	.412	.116
To offer better protection for investors	-.059	.221	-.225	.382
To increase liquidity	.341	-.578	-.399	.208
To increase firm visibility	.867	-.139	-.503	.404
To boost corporate marketing efforts	.279	.272	.846	.199
To reduce information asymmetries	.761	-.308	.152	-.179
To increase investor base	.958	.271	-.216	-.093
To increase the market value of the firm	.509	.208	-.011	.322
To support the drive for regional integration by states	-.728	-.310	.195	.070
Access to external capital	-.012	.276	.050	.777
To offer better protection for investors	.299	-.184	.080	.030
To exploit growth opportunities	.154	.876	.106	.147

Extraction Method: Principal Component Analysis, Rotation Method: Varimax with Kaiser Normalization

4. Discussions

The key reasons behind the decision to cross-list from a managerial perspective appeared to be to increase investor recognition. This was in line with Merton (1987) investor recognition hypothesis. The other reason coming out of the survey was the desire for expansion, which lends credence to Doidge *et al.,* (2004) growth opportunities hypothesis. In line with this hypothesis cross-listing in East Africa exchanges by NSE listed firms appeared to be

to facilitate mergers and acquisitions in their drive for expansion. Boosting of sales also featured as one of the key reasons for cross-listing by NSE listed firms and this reason appear to support the view by baker (1992). The last key reason extracted from the factor analysis was the desire to reduce the cost of capital. This reason was more in line with Ahimud and Mendelson (1998). The factor analysis did not provide evidence that legal bonding is a motivation for the cross-listing by NSE firms. The study's hypothesis that the cross-listings in East Africa were motivated by the desire to exploit growth opportunities was supported, a better term to describe the exploitation of growth opportunities was however given as expansion of business.

5. Conclusion

The purpose of this study was to investigate the key reasons behind the decision by the firm management to cross-list. The study conjectured that, for firms that have cross-listed in East Africa, the decision to cross-list is not driven by the desire to protect investors and hypothesized that the decision to cross-list is driven by the desire to exploit growth opportunities. The study conducted factor analysis which identified investor recognition, expansion of business, boosting of sales and desire to lower the cost of capital as key reasons motivating cross-listings in the East African region. The findings from the study appear to indicate that there may be contextual differences in the decisions to cross-list. The decisions to cross-list in more developed markets may not be the same reasons informing decisions to cross-list in similar or lesser developed markets. With this in mind more extensive surveys of managerial motivations may be conducted with a view to determining the extent to which their objectives are met by the action of cross-listing given the costs involved.

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Notes

Note 1. Thought extant literature attributed bonding hypothesis to Coffee (1999), Fuerst (1998) presented a formal model analyzing the investor protection regulations argument for cross listing which was the basis of the

bonding hypothesis. The model lent credence to the bonding hypothesis.

Note 2. Though not offering an alternative explanation for cross-listings, Jordan (2006) regards the bonding hypothesis as unfounded. She questions the main assumption of the bonding hypothesis that the American legal system is superior to others such as the UK or Canada in the protection of shareholders. She regards this assertion "the classic blunder of the amateur comparativist, confounding difference with deficiency".

Note 3. The words component and factor are used interchangeably.