

## Strategic Change in Operating Trends of Public Listed Companies and Its Impact on Stock Market Growth

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The primary concern of the present study is to examine the impact of cross-listing on the stock market growth. The theoretical framework for the research was developed by taking the members of the World Federation of Exchanges (WFE) as statistical frame. For analysis and statistical calculations in the study a Structural Equation Modelling (SEM) technique is used. The results suggest a significant and positive impact of cross-listing on stock market growth indicators except on the value of share trading. The study concludes that cross-listing is fruitful for stock market growth of host stock exchanges. It recommends that host countries should create conducive environment for offshore listing.

*Keywords:* Cross-listing, Domestic Listing, Market Capitalisation, Equity Shares and Stock Index

### 1. INTRODUCTION

Introduction of the Alternative Trading System (ATS) is a paradigm shift towards network economy and globalisation which has changed the patterns and trends of capital markets over the last few decades [Alhaj-Yaseen (2013)]. Capital mobility has lowered the barriers that keep national markets separate or independent from one another [Changa and Corbitt (2012)]. As a result of globalisation, firms have become more integrated with each other than before, wrecking the boundaries of operations [Peng and Su (2014)]. Furthermore, advancements in technology have also changed the way stock is traded. Globalisation eventually has resulted in an expansion and diversification of operational areas of the stock exchanges. Competition among stock exchanges is substantially increasing because of factors like expansion of stock markets [Alhaj-Yaseen (2013)], strategic change in governing structure of the stock exchanges (demutualisation) and interaction and information sharing among global investors [Ahmeda, *et al.* (2006)].

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The obstacles to international capital flow are legal restrictions on capital mobility and foreign ownership, the costs associated with trading and acquiring information on companies listed abroad and concerns over investor protection in certain foreign jurisdictions that still exist [Abdallah, Abdallah, and Saad (2011)]. The segmentation of markets that re-emerges with these barriers is creating incentives for corporate managers to adopt financial policies such as international cross-listing whereby a company lists its shares for trading on at least two stock exchanges located in different countries. However, investors can now access foreign capital markets easily as geographical boundaries have been rendered meaningless [Alaganar and Bhar (2004)]. At the same time, listed companies can enlist their securities for trading around the world without any hassle to attract investors effectively and by controlling their operations in head offices located in different corners of the world [Dodd and Gilbert (2016)].

Despite globalised, integrated capital markets, companies still opt for cross-listing or offshore listing for numerous reasons, benefiting both the company and the investors. The basic idea behind cross-listing is to help and facilitate the listed companies to access foreign capital from domestic markets because general public will be enabled to take part in the initial public offerings across borders and most importantly the brokering community may be able to operate directly in regional stock markets by use of technology such as remote trading terminals etc. Changa and Corbitt (2012) defines the secondary listing as *“listing of stocks on foreign exchange, local exchange subjects itself to foreign exchange, and, by doing so, reduces the discretion corporate insiders have to divert corporate resources for their own private benefit ”*.

There is a significant body of literature that deals with cross border or offshore listing and its effects on the governance structure [Charest, Cosset, Marhfor, and M'Zali (2014); Charitou, Louca, and Panayides (2007)] as well as offshore listing and its private benefits to one firm regarding the control on another firm [Chira (2014)]. Similarly, studies have investigated offshore listing and its impact on company worth and the competition in the host stock market [Ghosh and He (2015)], as well as market return and risk to cross listed companies in domestic host stock market [Koh, Lee, and Basu (2015)]. Effects and reaction of cross-listing on host stock market [Alaganar and Bhar (2004)] are also important areas of discussion.

Besides, the cross-listing and its legal aspect as a consequence of the Sarbanes-Oxley Act as well as its benefits to new markets [Bahlous (2013)] are also the focus of discussion in various circles. However, little research has been carried out on the role of cross-listing in host stock market. This evident gap in the existing literature needs to be bridged to develop linkage between cross-listing and host stock market growth, which would be a new concept in the relevant research field. Consequently, this study adds to the existing literature about stock market by exhibiting how secondary listing significantly uplifts indicators of host stock market, bringing novelty to the field. The present research advances theoretical and conceptual contribution in this domain by finding answers to two research questions i.e., how does cross border listing enhances capital market growth of host

stock exchanges, which experienced the cross border listing program; and what is the mean score of cross-listing in different exchanges?

## 2. LITERATURE REVIEW

If access to the market, and capital flows are very restricted and the risk mitigation avenues through diversified pool of investments are limited, cross-listing would be a source to counter these restrictions and limitations [Alhaj-Yaseen (2013)]. Prior literature has documented numerous fruitful economic outcomes of cross-listing. For instance, it reduces cost of capital [Bris, Cantale, Hrnjic, and Nishiotis (2012)], extends stockholder base [Karolyi (2012)], provides more liquidity as well as diversified pool of investment [Peng and Su (2014)], and enhances firms' visibility and exposure to participation of local and international investors [Charitou, Louca, and Panayides (2007)]. Cross-listing has numerous benefits, particularly, when firms can avail opportunities in terms of new investors, have their stock traded in the international market and gain access to international pool of investment. It also reduces the discretion where corporate insiders divert corporate resources for their own private benefit [Koh, Lee, Basu, and Roehl (2013)].

Cross-listing removes the investment barriers that exist between two locations as the investors can trade overseas the same way they trade at local markets. It also helps in the growth of the capital market of a country in which the companies go to list [Kryzanowski and Lazrak (2011)]. However, most of the recent literature regarding offshore listing has emphasised on its governance benefits due to diversified pool of investments. In addition, the Sarbanes-Oxley Act in 2002 encourages the company's concentration towards the foreign market for risk mitigation and for vigorous corporate governance structure in the company. When a company is listed in a foreign market for trading, its capital comprises of domestic and foreign funds. This benefit is an opportunity for shareholders of the cross-listed companies to avail better investor protection when their shares are traded in international market. Cross-listing can assist stock exchanges to enhance stock market performance by updating its technology and improving corporate governance structure due to diversified investors, which are more responsive and flexible to market growth. This ensures appropriate decision making due to corporate investors and increases the value of its customers, such as foreign and domestic companies [Lin, Hutchinson and Percy (2013)].

Litvak (2008) provided a theoretical model and supporting empirical evidence that integration of emerging stock markets is beneficial for the development of a domestic stock market. Integration increases domestic prices by enhancing the ability of the domestic stock market to provide the diversification and liquidity roles of the market. Liu (2007) found that firms can raise more equity capital after cross-listing in the U.S. and those firms which are cross-listed possess more worth than those which have not [Luo, Fangb, and Esquedac (2012)].

Cross-listing of stocks in multiple stock markets may offer an opportunity to diversify their investments, by investing in different markets, and increasing financial and economic ties [McEnroe and Sullivan (2006)]. Ng, Yong, and Faff (2012) concluded that the integration of emerging stock markets increases domestic prices by enhancing the ability of the domestic stocks to provide diversification and liquidity, and

transfer a segmented local equity market to an integrated market with high liquidity and market capitalisation.

Pan and Brooker (2014) argued that growth opportunities are more highly valued for firms that choose to cross-list in the U.S., particularly those from countries with weaker investor rights. They also concluded that firm characteristics explain almost none of the variations in governance ratings in less-developed countries and that access to global capital markets sharpens firms' incentives for better governance. All the evidence is consistent with the theory that there is a distinct governance benefit for firms that are listed on the US exchanges [Bailey, Karolyi and Salva (2006)]. This benefit is not shared by firms that list outside the US exchanges or in London. There is no evidence in our data that this benefit has weakened over time [Peng and Su (2014)].

Petrasek (2012) argued that global equity increases the list of the company's investor base with beneficial effects on the cost of capital. Cross-listing can assist stock exchanges to enhance the stock market performance by updating its technology, improving corporate governance structure due to diversified investors [You, Lucey, and Shu (2013)] which is more responsive and flexible to market growth, ensuring appropriate decision-making due to corporate investors [Silva, Chavez, and Wiggins (2015)] and increasing the value of its customers such as foreign and domestic companies.

Cross-listing also covers advantages regarding liquidity, return, new opportunities and reduction of the risk due to diversified investment in the capital of the company [You, Lucey and Shu (2013)]. It also indicates the benefits of foreign stock listings, including enhancing the name recognition in the minds of investors and consumers in a foreign country, building relations and access to a foreign financial community as well as economic soundness in the local market.

## 2.1. Hypothesis

It is evident in the existing body of literature regarding stock markets that integration of regional stock markets with international forums through cross-listing is not only beneficial for the cross-listed company but it also upgrades the intensity of the host stock market. Chira (2014) argued that firms can gain more equity capital and worth after cross-listing than those which are not cross-listed, by availing international market access, gaining diversified investment, and enhancing their financial and economic resources [Alhaj-Yaseen (2013)]. Similarly, when an international or multi-national company lists its securities on a regional stock market forum e.g. Bombay Stock Exchange, Pakistan Stock Exchange and Tehran Stock Exchange, it plays a vital role in developing and enhancing the magnitude of share trading value on host market [Bailey, Karolyi and Salva (2006)].

**H1:** *Cross-Listing leads to a better share trading magnitude in the host stock exchange.*

Cross-listing not only removes barriers in the trading of companies, which exist among different nations like India and Pakistan, but also brings investors from different

regions together. It also helps to grow the capital market of the country in which the company is going to be enlisted [Zhou and Owusu-Ansah (2012)]. As a result, the magnitude of market capitalisation of host stock market expands due to listing of new foreign company shares.

**H2:** *Cross-Listing enhances market capitalisation in host stock exchanges.*

It has been observed that ups and downs in stock indexes are the result of stock market investors' behaviour, daily activities, trends, political stability and the economic condition of the relevant country. It can be enhanced through upgrading technology, providing concessions in trading and attracting investors by building confidence among investors. It has been observed during the last decade that cross-listing is also an emerging reason which could influence the stock index of a host market [Baileya, Karolyi, and Salva (2006)].

**H3:** *Offshore listing strengthens stock index in host stock exchanges.*

The most important issue regarding the listing on the stock exchange is the lack of confidence of the company in its regulatory system, operating system and working condition. It is considered as 'club of brokers' [Karolyi (2012)]. Because of this listing, the trends of stock exchange forums are slow and weak. The effects of globalisation are realised in every domain of life but are especially evident in the stock market because of the concept of demutualisation and cross-listing [Bahlous (2013)]. It shifted investors, especially public unlisted companies' focus from local investors towards stock market forum. As a result, public unlisted companies' trends are diverting towards stock markets due to foreign investors.

**H4:** *Secondary listing attracts the unlisted domestic companies towards capital market to list their securities on their platform.*

Cross-listing removes the investment barriers that exist between two locations, as the investors can trade overseas shares in the same way as they trade at the local markets. It also helps to grow the capital market activities in the host country in which the company is going to list [Yu-Shan (2008)]. This causes increased trading activities in the host market [Ayyagari (2004)].

**H5:** *Cross-border listing increases trading activities in host market through attracting investors towards foreign investment.*

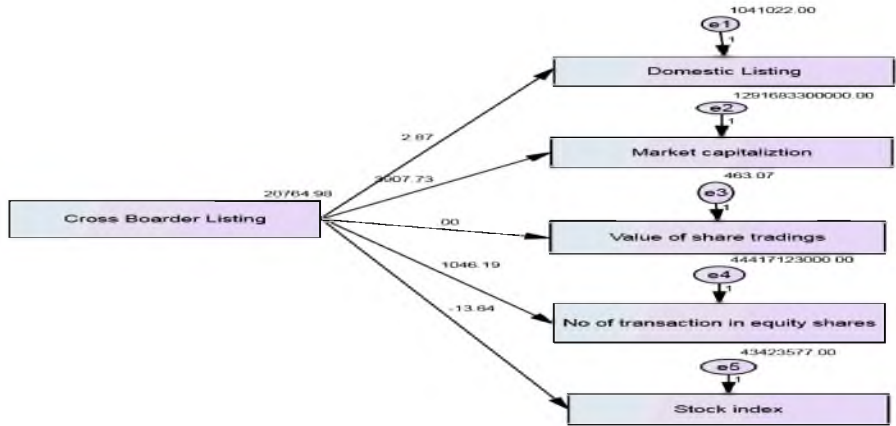
### 3. FRAMEWORK DETAIL

The idea of cross-listing is to list a domestic public listed company's securities on the international secondary stock exchanges to get benefits of excessive optimal capital and to increase investment opportunities [Chipeta and Mbululu (2013); Ayyagari (2004)]. The basic idea behind the cross-listing phenomenon is to facilitate listed companies to access foreign capital from domestic markets and to enable the general public to take part in initial public offerings across the border where the most important

brokering community may be able to operate directly in regional stock markets through use of technology such as remote trading terminals etc.

**Fig. 1. Result of SEM**

*Cross listing and its impact on stock market performance*



The main indicators of the stock market growth are as follows:

1.No. of Listed Companies	The number of the listed companies is a figure which shows how many companies are listed on the platform of the stock exchanges and share their activities in the concerning stock exchanges.
2. No. of the Transactions	Number of the transactions in the equity market shows how many transactions in the equity capital and debt capital are carried out on daily basis. "The number of trades represents the actual number of transactions which have occurred during the period on the relevant exchange." [World Federation of Exchanges (2012)]
3. Value of Share Trading	The value of share trading is the total number of shares traded multiplied by their respective matching prices. It shows the total worth of domestic companies' shares trading in specific period.
4. Market Capitalisation	Companies admitted to listing and trading are included in the data. Market capitalisation is a term which shows the strength and magnitude of the stock market. Market capitalisation shows how strong and large the stock exchange is. The market capitalisation is calculated by the total number of issued shares of the domestic companies, including their several classes, multiplied by their respective prices at a given time.
5. Stock Index	Indexes are, in general, market capitalisation-weighted including a large sample of listed domestic companies, as all-share or composite indexes. They are generally re-calculated to adjust capital operations and modifications in the company composition of the index. The index can be market capitalisation-weighted or free float based. When the index is a price index, it measures the pure change of share prices without taking into consideration returns from dividend pay-outs.

**4. METHODOLOGY**

This study consists of 104 stock exchanges which are members of the World Federation of the Exchanges. The sample of the study was selected by using stratified

proportionate sampling technique. Total population is divided into three homogeneous subgroups (strata) such as *Asian*, *European* and *American* stock exchanges. These strata are mutually exclusive in terms of ownership, control, region, rules and regulations, and the working environments. Systematic sampling was then used within each stratum for selection of the sample. The sample comprised of only 16 (15.38 percent of population) stock exchanges, which have experienced cross-listing and foreign companies are listed on their platform. Sample of the study comprised of 5 stock exchanges from the American region (31.25 percent of sample), 4 stock exchanges from the Asian region (25 percent of sample) and 7 stock exchanges from the European region (43.75 percent of the sample). List of this sample of stock exchanges is shown in Table (1).

Table 1  
*Summary of Sample and Mean and Median of Cross Listing in  
Sample Stock Exchanges from 2000 to 2012*

Sr. No.	Stock Exchange	Region	Mean	Median
1	American SE	Americas	81	95
2	Bermuda SE	Americas	33	33
3	Lima SE	Americas	38	32
4	NASDAQ OMX	Americas	340	321
5	TMX Group	Americas	61	52
6	Australian SE	Asia Pacific	80	78
7	Japan Exchange Group – Tokyo	Asia Pacific	24	25
8	New Zealand Exchange	Asia Pacific	34	31
9	Singapore Exchange	Asia Pacific	198	247
10	Deutsche B�rse	Europe - Africa - Middle East	136	105
11	Johannesburg SE	Europe - Africa - Middle East	31	30
12	London SE	Europe - Africa - Middle East	505	501
13	Luxembourg SE	Europe - Africa - Middle East	225	224
14	NYSE Euronext (Europe)	Europe - Africa - Middle East	246	334
15	Oslo B�rs	Europe - Africa - Middle East	34	34
16	SIX Swiss Exchange	Europe - Africa - Middle East	96	92

Concerned data for chosen stock exchanges was provided by the World Federation of Exchanges (WFE) along with authorisation for its use for the present study. The data in squashed form was also published on their website which voided reliability issues since reliability of secondary data is assessed through its source from

which the data is collected [Sekaran (2003)]. This data covers the time period from 2000 to 2012 regarding foreign listed companies and stock market indicators of host stock exchanges.

Quantitative analysis coupled with a qualitative background was employed to test research hypotheses. The study used the Structural Equation Modelling (SEM) for the model fitness and to check whether the cross-listing significantly influences stock market indicators such as domestic listing, market capitalisation, stock index, number of transactions in equity market and value of share trading.

## 5. FINDINGS AND DISCUSSION

### 5.1. Descriptive Statistics

Data range, mean, standard deviation and normality distribution is provided in Table (2). Descriptive statistics indicate a normal distribution in data, which affirms the assumption for running all statistical tests. Similarly, the result of descriptive statistics shows the cross-listing of foreign companies listing in the stock exchanges as shown in Table (1, 2) and Figure (3, 4). American region average cross-listing on exchanges was as American SE, Bermuda SE, Lima SE, Nasdaq Omx and Tmx Group 81, 33, 38, 340 and 61 foreign companies respectively as shown in Table (2) and Figure (3). Nasdaq has the highest score in foreign listings as an average of 340 foreign companies per year were listed on its platform from 2000 to 2012. Similarly, average cross-listing in Asia Pacific's stock exchanges such as Australian SE, Japan Exchange Group Tokyo, New Zealand Exchange and Singapore Exchange is 80, 24, 34 and 198 foreign companies respectively as shown in Table (2) and Figure (3). The Singapore Exchange enjoys the highest score in foreign listing as an average of 198 foreign companies per year were listed on its platform from 2000 to 2012.

Table 2

*Summary of Descriptive Statistics*

	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Cross Boarder Listing	9.00	719.00	135.7212	144.44824	1.689	.169	2.656	.336
Domestic Listing	13.00	4239.00	1019.8846	1103.50771	1.149	.169	.170	.336
Market Capitalisation	1232.34	4614068.83	1059113.2674	1271434.12757	1.161	.169	.196	.336
Value of Share Trading	103.00	276.00	245.5986	21.57111	-4.957	.169	28.201	.336
No of Transaction in Equity Shares	5.45	1515900.70	183834.1214	259747.79185	2.212	.169	6.189	.336
Stock Index	-464.80	39250.34	5217.3480	6893.22691	2.391	.169	6.088	.336

**Fig. 2. Summary of Mean of Cross Listing in Stock Exchanges**

**Fig. 3. Summary of Median of Cross Listing in Stock Exchanges**



In the European stock exchanges the result is that in Deutsche, Johannesburg SE, London SE, Luxembourg SE, Nyse Euro next (Europe), Oslo børs and SIX Swiss Exchange, 136, 31, 505, 225, 246, 34 and 96 foreign companies were listed respectively as shown in Table (1) and Figure (3). In the European sample, London SE is at the top in foreign companies with listing 505 companies. Result of the study shows that 340 average foreign companies in a year are listed on the NASDAQ stock exchange which is at the top of the list in American region and 198 companies are listed on the Singapore stock exchanges in the Asian region. Similarly, the London stock exchange is at the top of list in European region with average 505 foreign companies per year listed on its platform. The London stock exchange is more attractive than the Nasdaq and Singapore stock exchanges for foreign companies listing. [Changa and Corbitt (2012)] argued that London stock exchange is more attractive than other stock exchanges not because of changes in firm characteristics but due to changes in the benefits of cross-listing.

## 5.2. Model Fitness

The sample size of the study is 208 observations covering 16 stock exchanges over the period from 2000 to 2012. Six model fit indexes ( $\chi^2/df$ , GFI, AGFI, NFI, CFI and RMSEA) are employed to test the fitness of the model. These indexes of the model fitness, on the basis of the structural model analysis, are summarised in Table (3). In practice, Chi-square/degrees of freedom should be less than 3, GFI, NFI, CFI should be greater than or equal to 0.9, AGFI should be more than 0.8, and RMSEA should be less than or equal to 0.08 are considered as indicators of a good fit [Teo and Khine (2009); Jackson, *et al.* (2005)]. As shown in Table (3), all goodness-of-fit indices are in the acceptable range. Chi square is 21.970, Degree of freedom is 10, Chi-square/degrees of freedom 2.19 and  $P < 0.0000$  RMSEA 0.069\*\* which is less than 0.08 GFI 0.97, NFI 0.93, CFI 0.91 and AGFI 0.82 which are greater than 0.9, 0.8 respectively. So, it is concluded that the obtained model has suitable fitness.

Table 3

### *Summary Indexes about the Model Fitness*

Indexes	Standard Value	Observed Value	Recommended By
$\chi^2/df$	$\leq 3.00$	2.19	Wheaton, <i>et al.</i> (1977) and Carmines and McIver (1981)
GFI	$\geq 0.90$	0.97	Jöreskog and Sörbom (1984) and Jöreskog and Sörbom (1984)
AGFI	$\geq 0.80$	0.82	Jöreskog and Sörbom (1984) and Jöreskog and Sörbom (1984)
NFI	$\geq 0.90$	0.93	Bentler and Bonett (1980) and Bollen (1989b)
CFI	$\geq 0.90$	0.91	Bentler (1990)
RMSEA	$\leq 0.080$	0.069	Browne and Cudeck (1993)

*GFI = goodness-of-fit index; AGFI = adjusted goodness-of-fit index; NFI = Normed fit index; CFI = comparative fit index; RMSEA = root mean square error of approximation.*

*CFI*

## 5.3. Major Findings and Discussion

The result of the SEM and Pearson correlation shows that cross-listing of companies significantly and positively influences the domestic listing, market capitalisation and number of transactions in equity shares having regression weight 3907.734, 2.868 and 1046.187 respectively at 99 percent confidence level as shown in Tables 4 and 5. It shows that cross-listing enhances the domestic companies listing; market capitalisation and number of transactions in equity shares of host stock exchanges. Impact of the cross-listing on the stock index is -13.642 and significant at 99 percent confidence level as shown in Tables 4 and 5. Similarly, there is no impact of the off-shore listing on the value of share trading. Findings of the SEM and Pearson correlation accept the null hypotheses and reject all alternative hypotheses except H5.

Table 4

*Summary of Correlation*

	1	2	3	4	5
1. Cross-Listing	1				
2. Domestic Listing	.375**	1			
3. Market Capitalisation	.444**	.697**	1		
4. Value of Share Trading	.500**	.020	.095	1	
5. No of Transaction in Equity Shares	.582**	.650**	.645**	.054	1
6. Stock Index	.286**	.147*	.183**	.114	.121

Table 5

*Summary of Regression Weights*

Dependent Variables	IV	Estimate	S.E.	C.R.	P
Domestic Listing	<--- Cross Listing	2.868	0.492	5.829	***
Stock index	<--- Cross Listing	-13.642	3.178	-4.292	***
Domestic Market Capitalisation	<--- Cross Listing	3907.734	548.185	7.128	***
No of Transaction in Equity Shares	<--- Cross Listing	1046.187	101.654	10.292	***
Value of Share Trading	<--- Cross Listing	0.001	0.01	0.067	0.947

The last two decades have observed a growing trend and interest of researchers about cross-listing. Most of them emphasised the impact of the cross-listing on stock returns in terms of share price up-gradation [Bahlous (2013)], short term and long term liquidity [Eaton, Nofsinger, and Weaver (2007)], cost of capital [Eaton, Nofsinger, and Weaver (2007)], and risk associated with cross-listing abroad [Baileya, Karolyi and Salva (2006); Zhou and Owusu-Ansah (2012)]. When we talk about the benefits of the cross-listing with respect to capital market of host stock exchange, it is not only fruitful for companies to provide new avenues for fund raising and share price strengthening through availability of access to international market but it also increases the magnitude of the capital market of host country.

When the companies list their securities on foreign capital market for trading, it increases the magnitude of market capitalisation of that market by increasing number of shares on that platform. Another advantage of cross-listing is that when a company is listed in foreign market for trading, its capital comprises of domestic and foreign funds.

Cross-listing can assist stock exchanges to enhance stock market performance by updating its technology and improve corporate governance structure due to diversified investors [Teng and Liu (2013)]. The findings of the study suggest that after the cross-listing, diversified ownership creates a constant pressure on board of directors of cross-listed firms to behave in the best interest of shareholders due to rigorous policies about investor protection in international markets. Overall, our results, consistent with the prior literature on the financial and economics fruitfulness of cross-listings on international stock exchanges, suggest an increased importance of cross-listing on American stock exchanges.

Similarly, cross-listing enhances the overall performance of stock market indicators such as domestic companies listing, market capitalisation and number of transactions in equity shares of host stock exchanges which indicate offshore listing leads to better stock market performance. Chipeta and Mbululu (2013) provided evidence in support of our study showing that companies increase the number of equity issues after listing in a secondary market due to equity issuance in their home market as well as in host market. As a consequence of equity issuance in host market, number of transactions in equity market of the host stock exchanges increases which definitely increases market capitalisation. Increase in market capitalisation shows the soundness of Indexes and is the best indicator of market growth. Cross-listing has only one negative impact and that is on stocks index, which might not be real because stock index data is highly volatile as it indicates negative association.

#### **5.4. Theoretical and Practical Implications of the Study**

This study makes important theoretical contributions to the economic and financial literature as well as implications for academics scholars about secondary listing, diversified pool of investment, avenues of growth, and yielding significance. The basic and important conceptual insight to emerge from this study is that dual listing gives firms financial power to tackle various financial risks and also enhances the magnitude of trading volume and increases the competition in stock market. Critically, the degree to which companies list on exchanges determines whether or not the secondary listing will increase trading activities in market and volume. It is not only beneficial for the market but also provides diversified sources of investments to listed companies and investors. It also indicates that the benefits of enhancement in market volume and improvement of cross-listed firm's financial position depend on host market's policies. These results suggest that the secondary listing affects the host stock market in a positive manner by enhancing market volume and creating positive sentiments in the market regarding confidence building for local companies to list their securities on the host market.

In addition, this study provides three important practical implications for cross-listed firms and host stock market. Firstly, cross-listing provides international avenues and forums with a good starting point to cross-listed firms, to unfold their growth opportunities and scope for both products and locations. It does not only diversify firm's capital resources financially but also unfolds avenues for strategic growth. In this regard, the board of directors of a cross-listed firm should follow the

stringent international market requirements to really gain the benefits from cross-listing. Secondly, the board of directors of a cross-listed firm should be aware of the fact that after cross-listing, the securities, shareholding of the firm, and the scope will be changed. Firms may be advised to focus on long term growth and return for their survival in the international market. This study also suggests that firms should keep the level of both the local and international shareholding the same because it still has to respond to ups and downs of the international market. However, when a cross-listed firm gradually gains benefits, it can then raise further capital through different sources such as debentures, bonds etc. In this way, a cross-listed firm can enhance its efficiency by expanding its leverages through both technological synergy and financial synergy. Lastly, managers should also be aware that the competition in the market increases after cross-listing. Managers, thus, need to equip themselves with both the knowledge and the psychological preparation to deal with the complexities and frustrations associated with cross-border listing.

The findings of this study may be of interest to regulatory bodies and policy makers. The policy makers and regulatory bodies should be concerned about how they can both improve their countries' stock market volume and strengthen enforcement strategies so that cross-listed firms would be valued fairly.

## 6. CONCLUSION

The present study examined the impact of cross-listings on stock market indicators. The study revealed that London Stock Exchange is at the top in comparison with others in cross-listing or foreign companies listing on its platform. The fact is that a number of foreign listed companies have seen decline in other stock exchanges like NASDAQ etc. The U.S. security Exchange Commission increased enforcement of corporate laws; development of litigation environment, enhancement of true and fair disclosure of conflict of interest according to the U.S. generally accepted accounting principles. These regulations may reduce the information asymmetry between the management and shareholders. Consequently, a cross-listing on U.S. stock exchanges enforces firms to value the minority shareholder rights. This argument is known in the literature as the bonding hypothesis, as a result of which, screening mechanism in the U.S. market has been increased and may be a hurdle in the way of attracting firms that are not likely to comply with the more demanding environment. This broader concept and situation makes it difficult for NASDAQ to attract foreign investors, hence becoming less competitive in terms of flexible atmosphere about foreign companies, perhaps because of regulatory changes.

In the light of market segmentation theory, if two stock markets are integrated with each other, then the assets having the same risk should gain the same risk premium; however, if these markets are segmented, the same assets will have a different risk premium in each market. In the context of offshore listing on American exchanges, due to the existence of investment barriers between two markets, international investors with diversified pool of securities on their portfolios are likely to demand a positive risk premium, represented in higher expected returns, to compensate for the higher risk that arises from market segmentation. As a result, most of the firms are not likely to invest

their securities in American exchanges comparative to London stock exchange. Similarly, the result of SEM shows that cross-listing of the stock exchanges is not only fruitful for those companies which go for cross-listing but is also beneficial for stock market growth of the host stock exchanges where these companies are listed. The result of the present study is also validated by [You, Lucey, and Shu (2013)] affirming the conclusion that companies increase the number of equity issues after the listing in host stock exchanges platform. As a consequence of equity issues in host markets, the number of transactions in the equity market of the host stock exchanges increases which definitely increases market capitalisation. The increase in market capitalisation shows the soundness of indexes and is the best indicator towards market growth. All of the gathered evidence supports the concept that cross-listing is not only beneficial for the firms which get listed on exchanges but it also supports growth of the stock market of host stock exchanges.

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