Can Parents Be Attributed to Their Subsidiary Performance?

A Multi-Level Analysis for Performance Determinants of Multinational Enterprises in Pakistan

Nayab Zahra
Research Scholar
Karachi University Business School (KUBS)
University of Karachi
Main University Rd, Karachi, Pakistan
E-mail: nayab.zulfi694@gmail.com

Dr. Danish Ahmed Siddiqui
Associate Professor
Karachi University Business School (KUBS)
Faculty of Management and Administrative Sciences, University of Karachi
Main University Rd, Karachi, Pakistan
E-mail: daanish79@hotmail.com

Received: November 2, 2020  Accepted: Nov. 28, 2020  Published: Nov. 30, 2020
doi:10.5296/wjbm.v6i2.18003  URL: https://doi.org/10.5296/wjbm.v6i2.18003

Abstract

International firms are highly sensitive to the performance of their subsidiaries and want to understand the factors behind their monetary success. Thus, numerous strategies are employed by these International firms to explore subsidiaries’ performance determinants; usually, these include subsidiary level attributes, ignoring the parent’s impact along with its country. To address this gap we construct a multi-level research that focuses the subsidiary, parent attributes along with countries’ Governance Indicators while predicting the determinants of subsidiary performance in Pakistan.
We use two different levels i.e. parent & subsidiary level; multi-level analysis approach with HLM (Hierarchical Linear Model) in this research paper. Governance indicators of both parents and subsidiaries were taken explanatory factors along with Market growth, size, Performance, R & D, capital structure as well as asset management policies of parent. Subsidiary level factors included parents’ ownership, size, equity, and capital investment. 26 multinational companies listed on Pakistan Stock Exchange were included. Data was taken from the year 2012 to 2018. Selected companies cover around ten sectors of Pakistan Stock Exchange.

The study revealed that on both levels; parents and subsidiaries, Governance institutions are more influencing factors rather than companies’ own attributes. We recommend that before investing in a country, international businesses should take into account Governance institutions (by World Bank); more than their own attributes.

**Originality/value** - This study contributes to the existing approaches to determining subsidiary performance through adding Governance institutions and parent level attributes. Especially it explores the determinants of subsidiary performance in a developing country; Pakistan in the Asia continent.

**Keywords:** International firms, Subsidiary performance, Multi-level analysis, Hierarchical Linear Model, World governance indicators, Pakistan, Asia

**1. Introduction**

**1.1 Background to the Study**

Study reveals that international firms involve in Investing abroad in order to capture international markets and have internationalization on the globe i.e. holding great market chunks. Many foreign subsidiaries (companies that are partially or wholly owned by a larger corporation with headquarters in another country, and are incorporated by the laws of the country they are in) are established and operate in Asia. The performance of foreign subsidiaries is also a major concern of managers of multinational enterprises (MNEs) because it directly relates to their international strategy, has a profound influence on their global operations, and may even impact on the overall development and success of parent firm.

Subsidiary performance is a factor, firm has to know in this process as it is a measure that scales firms' performance in the international market. As per said by “Buckley and casson”; ‘MNEs are firms with its dormant foreign direct Investment in different countries, could be be in only one country or in various /multiple countries.’ i.e. in the form of respective subsidiaries.

It is crucial for MNEs to know how they are performing in those different countries, through their subsidiaries/associates/takeovers. Despite of old theories of MNEs internationalization (that advocate the presence of only one way transfer of knowledge all alone that is; from parent firms to its subsidiaries. New researches finds the presence of another, and that is two way knowledge based on knowledge as well as on organizational network. It argues to consider not only parent companies but also subsidiary companies are to be covered.
Whenever analyze international businesses.

Through previous/traditional literature it was found that parent firm’s effectiveness mainly relies upon the resources and capabilities it contains within. Teece, Pisano, and Shuene (1997). Contrary to it, some new researches recently focus on subsidiary capabilities and resources rather than that of its parent. Rugman, Verbeke, and Nguyen reported in 2011. Those MNES who have more than one subsidiary; and each in a different country, are considered responsible to promote its performance (in total) through the generation of recent/updated capabilities. Plus, subsidiaries in different countries have to confront different/diversified characteristics on organizational and national level. These diversified characteristics holding countries have unequal resources inbuilt, as a result, subsidiaries working in diversified environment have somewhat distinct resources’ configuration (Dellestrand & Kappen, 2012). Along with, “each MNE invest abroad for different reasons and with different goals” (Dunning, 1993; Pan, 2017). As per “Dunning” and “Pan”, every MNE has a unique/separate interest with respect to its subsidiary (i.e. its investment) abroad.

As per oligopolistic theory, parent/subsidiaries, in order to surpass local companies, have to develop competitive edge i.e. more interpersonal relations with their local partners (Hymer, 1976).

For foreign subsidiary performance, FSA, firm-specific advantage (not locational bounded) from parent is leading attribute (Rugman & Verbeke, 2001). Furthermore, by formulating certain subsidiary based skills (pertaining to marketing, technology, and structural), the subsidiaries generate updated, novel abilities (Verbeke & Goerzen, 2009). In the view of Birkinshaw and Hood (1998), in the home country of parent plus the host country of a subsidiary, in both cases FSA's emergence is possible. Additionally, an experienced parent company (in foreign business) transfers its expertise to its subsidiary in foreign countries plus, organizational practices could be developed by managers (Madhok, 1997). The past researches showed that on parent level and subsidiary level, FSAs can be developed as well. And, there is a positive Correlation b/w them and company success if parents can maintain the FSAs across several operating blogs.

It is not yet, clear whether the subsidiary’s success is wholly and solely dependent on its own attributes or because of other factors intervening, especially from parent companies.

Emerging economies indulge foreign companies in uncertain situations. In this scenario, numerous reasons include i.e. political conditions, market growths, organizational conditions, etc.

“Emerging markets have significantly higher levels of these uncertainties comparatively than the more developed markets” (Peng, Wang, & Jiang, 2008).

Previous researches about ownership structures argue that increased managerial control is enjoyed by those parents who have more equity percentage in the foreign business i.e. overseas subsidiary (Kamminga & Meer-Kooistra, 2006). This increased control leads towards exploitation/exploration of company sources and abilities (Filatotchev, Stephan, & Jindra, 2008). Plus increased interest in equity enables a subsidiary to develop capabilities
and also sustain it which in turn derives fortune (financially) (Lu & Hebert, 2005).

2. Theoretical Framework

2.1 Subsidiary performance

As per, Ramsey and Bahia (2013) subsidiary can be evaluated on the ground of performance, through numerous ways. Because performances are not specific to a fixed, single factor it could be financial, operational, or in terms of effectiveness overall. Return on Investment/equity/assets/sales, profit margins, and growth, etc. are financial ratios used for this type of performance, stated (Ventakraman & Ramanujam, 1986; Ramsey & Bahia, 2013).

Mkt share, satisfied labor, efficiency/productivity, etc. fall into operating examples, Hult et al. (2008), Ramsey and Bahia (2013). Whereas, overall effectiveness encloses all factors relevant to performance, along with goals accomplishment, as compared to related competitors. Hult et al. (2008); Ramsey and Bahia (2013).

The common method is of financial one, as it is feasible to employ because of available/published financial statements of companies. Plus, it accesses economic interest of the firm i.e. the financial purpose in terms of ratios analysis, researched by “Ramsay and Bahia”.

2.2 Parents’ Related Attributes

Emerging economies open their doors to huge Investments from abroad. Countries having some specific policies are hugely analyzed by MNEs before entering into, for Investment purposes as MNEs future control/strategies are concerned with it. “Chen, Paik, and Park” (2010), whereas, rules/ regulations must be necessarily abide by firms, to remain alive and succeed, abroad (host country) (Dhanaraj & Beamish, 2009; Liou, Chao, & Yang, 2016). Moreover, success is conditional to the learning/explosion of the foreign countries’ characteristics pertaining to social/cultural and legal affairs (Contractor et al., 2014). As per Chen, Paik, and Park (2010) Mnes, with respect to maintain/manage its functions, has no choice instead it has to adjust with the host region’s provided regulations. Choices among foreign firms’ mode of entry tends transaction cost to rise due to uncertain situations. Giachetti, Manzi, and Colapinto (2019) pointed two distinct uncertainties including behavioral (to wrongly forecast behavior of counterparty at host country) and environmental (to wrongly access the circumstances/environment caused future opportunities), at host region.

According to RBV, for a firm’s distinct competitive edge, its resources/capabilities are accounted for. (Barney, 1991, 2001; Peteraf, 1993). Based on the theory, firms with greater unreliability/uncertainty towards the surrounding environment, focus on their own, internal abilities for long term formulations (Grant, 2016). Basically, RBV is associated with focusing on company’s own/specific resources for success/survival/edge, etc. in markets abroad (Barney, Wright, & Ketchen, 2001).

Newbert (2008) claimed that there is a correlation found b/w competitiveness, uniqueness, and performance. That’s why such attribute of competitiveness is granted to the abroad settled business, by extracting from its parents. However, Hokskisson et al. (2000) research
says that in order to achieve competitive edge on foreign Investments i.e. on subsidiary in a foreign emerging country, certain attributes are required by Parent firms. These attributes include legal institutional etc. informations.

“Dunning” used Investments (i.e. FD) into a group along with these benefits of the “FDI” includes; ownership, location, and internationalization. He suggested these attributes while analyzing subsidiary performance, which is based on international business theory. As per “Panda and Reddy, 2016", the competitive advantage of the firm can be categorized into its capabilities and resources. They used firm size as a resources and capabilities yardstick and it emphasized on RBV- Resource-Based View. As per their view, resources and capabilities of the firms can encourage FDI Investment in the host countries, can underlie motivation to engage in FDI, and can help out international firms to carry out decisions regarding MKT expansion, through joint venture in host country or on their own. As per study by “Lin, 2010”, the firm's specific variables are strategy and capabilities, by the firm which have direct relationship to the MNc's functionality to perform/ to confront competition in the foreign markets. In the view of Chiu et al. (2015), the firm’s resources/capabilities will bring forward specific long-term/ financial benefits. Previous studies also show that firms' resources and capabilities affect performance positively, after influencing/ reinforcing strategies in the external markets, as per Dhanaraj and Beamish (2003) plus Monteiro et al. (2019). On the basis of FDI theory, Franco et al. (2008), Hou (2003) researched that FDI decisions are backed by three motivations includes, search for market, resource, and efficiency. According to Vrh (2018), international performance is highly influenced by investments (tangible plus intangible both). Chiu et al. (2015), Lu and Beamish (2001) analyzed the motivations’ impact on subsidiary performance which helps to examine reasons why firms employ FDI strategy and how it is related to performance and growth. Further related; previous studies are quoted in hypothesis generation, as to how we developed hypothesis based on previous literature.

2.2.1 MKT Growth Rate

Reason to invest in foreign business is to spread MKT chunks to foreign countries by absorbing in foreign MKT. It also focuses on growth, size, and demand of the market (Lin, 2010). Na and Lightfoot (2006) research say that market dominance is main goal for FDI, achieved by absorbing in the roots of that MKTs. Another reason includes a search for MKT. One motive behind FDI is market-seeking. By increasing demand via increased customers, revenue is generated and that also encourages FDI (Buckley & Casson, 2009); Lin (2010). So, we can conclude the potential growth as a main strategy following FDI. An emerging market, growing rapidly can cause revenues to increase. In order to capture potential and prevalent buyers, firms invest abroad, and here also a reason i.e. searching for MKT chunks. Franco et al. (2008). Finally, MKT growth can be used for FDI evaluation, if reason behind FDI is concerned with capturing MKT. Hou (2002). FDI will be considered “paid" if MKT growth rate grows positive. Resultantly, following hypothesis is used;

**H1: The more a parent MKT grow, the better the performance of subsidiary.**
2.2.2 Parent’s Capability

It is accessed by firm size because the more a company has resources, the more it avail internally driven benefits. Such resources enable firms to better move their FDI strategy; plus the host countries’ reduced cost benefits is a bet for foreign investors i.e. large firms Lin (2010). There is a high Correlation found b/w firm size and internationalization, as per Horst (1972), Lall (1980); Wolf (1977). Firms with huge/ multiple resources can better take advantage of economy of scale as well as cost variations. Chhibber and Majumdar (1999). Bigger parents, shift their knowledge and skills, more frequently to its abroad business units, to capable them for better functioning, researched by Chiao et al. (2008); Chiu et al. (2015). It is also noted that large parents possess more history in working field and MKT power can effectively guide its foreign units (specifically, with same functioning industry

Therefore, parent company size is used to determine the success of its subsidiary in terms of its performance. As a result, our next hypothesis is;

**H2. The larger the parent size, the well-performing its overseas subsidiary will be.**

2.2.3 Parent Co.’s Performance

A firm’s better functioning is somewhat conditional to FDI. As per RBV, for a firm, to achieve self-owned, competitive edge, its internal resources are notable. On this edge, FDI and its need is typically based upon, in foreign businesses. Lin (2010). Performance is measured through profits a firm generates. Claver and Quer (2005). So, FDI strategies and financial performance can be defined by this competitive edge. herefore, this competitive advantage can be used to explain the FDI decision and the degree of performance (financially). Parent and subsidiary are distinct stages of companies, so there will be a different overall performance, considered for parent. Plus, parents develop long or short-term financial goals for their businesses units. And this includes in their overall strategy for profit generation at parent level (Pangarkar, 2008); Ramsey and Bahia (2013). As per Andersson et al. (2001), FDI will help out more profitable forms, to expand around the globe, it’s also an underlying motive for foreign investors. As a result here is next hypothesis;

**H3. The better the parents perform, the better performance will witness its overseas subsidiary.**

2.2.4 Research and Development (R&D)

FDI is mainly benefited by exploiting foreign regions’ specific resources including natural as well. Parents are attracted by natural resources of foreign regions as distinct resources' access can lead to more advancement in technology which is further used for processing for production said, Lin (2010). Well performing parents, spends more in the R&D related staff, who excels in this regard. As per a theory named knowledge-based, a company’s resources and its abilities can be defined by its R & D decisions. Lu and Beamish (2001), Pesalj (2011). R & D increases with respect to the decision about production department transfer to overseas. Here, parent invests more in its abroad units, so increased R & D causes increased FDI, this is called circle effect. Lin (2010) As per Wang and Hsiao (2014). History reveals that companies
with greater capital and Investment possesses more R&D, and that’s their success helper. Kaen and Baumann (2003). As per Caves (2007), Markusen (1995) FDI and R&D are positively correlated. Plus, both accelerate performance and Investment decision, said “Wang, Hsiao, Chiu et al”. So following hypothesis is generated,

**H5.**The more a parent investment in R&D, the well-performed will be its abroad subsidiary.

2.2.5 D/E Ratio of Parent Co.

What would be the impact of debt to equity ratio of a parent on subsidiary performance? This question is quite complex as researches do not reveal much about its impact in this sense i.e. researchers like ‘Soumadi and Hayajneh’, Hall, etc. studied its impact within a country level, in firm itself, and not on parent level. As a general rule, if the parent company has more burden of debt cost, it will be in difficulty to provide more resources to its subsidiary. So, to examine parent D/ E ratio we generate hypothesis.

**H11:** There is an inverse relation of parent’s D/E ratio on subsidiary performance.

2.2.6 Parent’s Inventory Turnover

“Jin and Shiming" disclosed that there is a negative impact of inventory turnover on firms. We analyzed inventory turnover from parent company, in order to capture its impact on subsidiary performance. Main objective here, is to find out whether the negative impact remains constant in this case of parent-subsidiary relation. Thus the hypothesis H12 is as under.

**H12:** There is a negative impact of parent’s inventory turnover on subsidiary performance.

2.3 Subsidiary Attributes

Previous studies show that different strategies are used by each and every subsidiary as it pursues different roles in the MNCs, Barlett and Ghoshal (1999). Previously researchers stated that the actual role of a subsidiary is to contribute to the economic growth and development of its parent company. In this regard, there are two theories emerged; traditional theory and subsidiary theory. As per traditional theory, there is single-sided knowledge was delivered to the working unit abroad, from its parent. Whereas, subsidiary theory clarifies the two-way transfer of knowledge/ resources i.e. from parent to subsidiary plus subsidiary towards parent. It states with time subsidiaries grow and develop its own resources/ capabilities in the host country environment and thus build such resources that even parent doesn’t have. As per RBV, the resources of firms and its unique capabilities are those factors that are determinants of its competitive advantage, (Barney, 1991, 2001; Peteraf, 1993). If firm’s external environment has greater rate of change, there will be greater chances that firm will be dependent on its internal resources/ capabilities, in order to provide/ serve long-term strategy, states (Grant, 2016). Capabilities and resources are differentiated by RBV, as capabilities are all type of resources (nontransferable) possess a Co. to boost up in the output/production. On the other hand, resources are that one, on which Co. has control over.
So, in this paper, data on subsidiary level is classified into both, strategy and resources (subsidiary), as per RBV- Research-based View.

Subsidiaries can play several roles. It is pointed out that knowledge deliverance channels have a distinction to traditional theory, as per pointed out subsidiary theory. One way knowledge transfer (to working units abroad, from parents) is researched in traditional theories. Whereas, in real-world two ways of transfer is existing i.e. parent to its working abroad and vice versa, and this is focused on subsidiary theory. It is based on the view that sometimes subsidiaries became stronger due to host countries’ resources and capable of transferring to parent, in return.

2.3.1 Co.’s Ownership

Foreign direct investment can be made through different entry modes i.e. partially or wholly-owned subsidiary, franchise form of subsidiary, or joint ventures. Dunning (1988) said that there are some obstacles a company has to face while investing abroad. As per Chiu et al. (2015) subsidiary may be a wholly-owned or may not be, i.e. maybe a joint venture. Parent enjoys control, to the greater extent, in case of wholly owned units. As per Wang and Hsiao (2014), this control of parents, over its unit is crucial and can be an obstacle for the performance of an international business. A business can achieve better success if have a co-operative/alliance, as it entails various advantages pertaining to cost reductions, MKT share, risks, resources, and returns. Among various alternatives, whatever companies choose to connect in foreign business, declares its commitment and ownership criteria, Boermans and Roelfsema (2012). In the view of Abodohou et al. (2013) subsidiary is just like a Co. whose capital is shared by another Co. (in %), which is parent to it. Parent’s control can decline, as subsidiary do various activities as per parents part. Subsidiaries may affect inversely on performance, i.e. due to confusions among local partners, research as per Lu and Beamish (2001) Wang and Hsiao (2014). So it is necessary for companies to have skills to rule over their various units. Wang and Hsiao (2014). Finally, we developed given hypothesis,

H9. The greater a parent’s shareholding (%) in its subsidiary, the more performance they witness.

2.3.2 Subsidiary Co.’s Size

As per Nguyen et al. (2013), large-sized companies, comparatively witness more return on Investment. Size of a company is mainly a reason behind its particular, associated benefits, Lin (2010), and as per Chiao et al. (2008) size of a co. is a basis that defines how it become able to access economies of scale because MKT power is a product of firm size. Chiao et al. (2008), Pfeffer and Salancik (2003) researched that greater resources are associated with bigger foreign units (i.e. subsidiary), as a result, such units remain not far dependent on parents but interdependent. It means parents focus individually on their foreign units i.e. subsidiary, for performance concerns. RBV says that a co.’s competitiveness and edge is approached by such benefits, in an international business, so firms in larger size, possess more such benefits which in turn boosts up performance. Chiao et al. (2008). As per RBV view, internal as well as external, both resources make a firm large-sized; greater approach to
the foreign countries is a product of firms networking ability, Peng and Beamish (2014). Networking problems are a problem b/w parent and subsidiary, plus among various units of the same firm, due to large-sized subsidiaries, Johnston and Menguc (2007), Peng and Beamish (2014). So, following is the next generated hypothesis;

**H10. The larger the size of a subsidiary, the more well-performing it will be.**

2.3.3 Co.’s Capital Amount

A company’s resources also include its capital. This capital is a base for every decision taken by company. The company with huge capital has more chances to get its capital investment in foreign countries because such companies can bear risks of stepping into international business, Lin (2010), Wang and Hsiao (2014). So, it can be forecasted that performance and capital of a firm possess a positive relationship. Capitaly intensified firms can easily use more resources, in peruse of high expectations i.e. performance. Kaen and Baumann (2003); Wang and Hsiao (2014). Its main purpose is to boost production, its quality while minimizing cost. Wang and Hsiao (2014). As per Guo and Jiang (2013) researched that firms backed by joint venture capital, perform exceptionally. Huge capital can also helpful in confronting foreign business’ risks, arises in a foreign country. Aggarwal and Kyaw (2008). Companies with Larger capital can hold strong positions by blocking competitors’ entrance. Wang and Hsiao (2014). So, develop another hypothesis;

**H11. The more the capital of a subsidiary, the well-performing it will be.**

2.3.4 Co.’s Investment Amount

According to the RBV, Investment is a resource for the subsidiary company, from its parent company. Such resources in turn affect the performance of the subsidiary. Investment promotes the transfer of resources, from parent to subsidiary, suggests Abodohoui (2013). Additionally, large Investment decisions can positively affect the subsidiary performance, as subsidiary becomes able to compete aggressively to absorb MKT share, “Beamish and Jiang”.

Thus, Investment amount is used in the above hypothesis to analyze a logical sense between subsidiary performance and investment from its parent company. So another hypothesis developed here:

**H12. The more, a subsidiary has Investment amount from parent, the well-performing it will be.**

2.3.5 Debt to Equity Ratio of Subsidiary

Debt to equity ratio is always taken into consideration whenever analyzing a firm’s capital structure. A general perception is that; such gearing strategies can boost up firm's productivity and profitability if used effectively. As per ArbaBryan and Safari (2009), the cost of debt is lower than that of equity, plus debt has tax advantages which equity doesn’t have, as result, it maximizes the firm’s performance. Sayeed (2011) also depicted same results.

But Alom (2013) researched an inverse relation b/w D/E ratio & performance. He stated if debt failed to get invested in profitable venues, will reduce return due to unavoidable cost.
Thus, we develop this hypothesis to analyze D/E ratio and performance of the firm in the case of Pakistan; a developing country.

**H9: There is a positive impact of debt to equity ratio of subsidiary, on its performance.**

2.3.6 **Inventory Turnover of Subsidiary**

Inventory turnover is the main indicator in manufacturing sector, on which profitability depends. Jin Kyung’ Kwak (2019) analyzes inventory turnover as of performance. Same as Shiming and Khan (2016) researched for Chinese local market and analyzed that, there is negative relationship between profitability and inventory turnover. According to Farooq (2019), “there is not significant impact if inventory turnover on return on assets but it on sales growth”. Overall the impact of inventory turnover is found somehow negative and somewhat insignificant as well. It means there was a mixed result in previous literature.

Pakistan’s economy is quite different from Chinese one so, we expect opposite results here, therefore above hypothesis is generated to reveal its impact on Pakistan’s economy.

**H10: There is a positive impact of inventory turnover of subsidiary on its performance.**

2.4 **Governance Institutions of Parents’ & Subsidiaries’ Countries**

Worldwide Governance Indicators are considered important factor for development of countries at macro, through previous studies; ‘there is a general consensus that institutions matter to governance and development’ as per Kaufmann, Kraay, and Zoido-Lobaton.

Jennifer, Spencer, and Carolina (2011) showed a positive impact of the host company corruption environment on the pressure subsidiary face to engage in bribery, locally. Spencer and Gomez (2011) analyzed that high level of corruption leads to the increased pressure on foreign firms to engage in corrupt practices, or vice versa”. Rule of law correlates to the development (i.e. per capita income), researched by Louis-Alexandre and Deval (2013). Findings from Gene, Yujin, and Richard, says that “accountability and corruption, both are significantly correlated with government effectiveness”.

As per previous research by ‘Rodrik, Subramanian & Trebbi’, there found a positive correlation between institutional quality and development on macro-level (i.e. per capita income) Spencer and Gomez (2011), researched about some firms that view political instability as an opportunity in “emerging” economies. As per Bird, Richard, and Martinez-Vazquez (2008) “there is a high correlation between corruption and voice and accountability index from Kaufmann et’ al whereas political Stability and control of corruption have significantly high Correlation. Study finds that the rule of law is generally positively related to the FDI which in turn impacts on performance, “Alexander, John Seth, 2014”. “Collier”, proposed negative impact of lawlessness/ insecurity on the society and its development which may impact adversely on subsidiary. Gene, Yujin, and Richard, reports that “accountability & corruption, are significantly correlated with government effectiveness”. “Haksoon”, work results that politically stable countries’ outflows are large, as they invest in countries with large political risks.
General assumption also suggests that better voice and accountability, govt. effectiveness, regulatory quality, rule of law, etc. have a positive impact on performance of the companies in case of subsidiary countries whereas, this relationship of six WWI affects conversely in the case of Parent’s country.

2.4.1 Control of Corruption

Jennifer Spencer and Carolina Gomez (2011) studies showed that “there is a positive impact of the host company corruption environment on the pressure subsidiary face to engage in bribery, locally”.

Plus, in the words of Spencer and Gomez (2011), “In host countries where there is high-level corruption, the pressure there is increased for foreign firms to engage in corrupt practices, or vice versa” which means higher control on corruption will reduce corrupt practices and ultimately increase performance.

**H13: There is a positive relationship between control of Corruption (as per Pakistan) and subsidiary performance.**

Emerging countries are considered as civilized and first world countries, as compared to underdevelop or developing countries, on the basis of dissimilar factor- like income, resources, literacy, and so on. It means “countries with higher income may have more resources to clean up corruption” (Triesman, 2000). The more corruption less economy is the more they have difficulties to understand third world economies’ corrupt/ illegal practices. Jingtao and Shuang (2019) analysis say that there is an inverse impact of corruption on FDI- foreign direct investment and in turn on subsidiary performance in host country.

**H19: There is an indirect relationship between Control of Corruption (as per parent’s country) and subsidiary performance.**

2.4.2 Rule of Law

Study finds a correlation in the WWI Indicator, rule of law, and development at macro level causation. It evidences rule of law Correlation towards development (increased per capita income on macro-level), Louis-Alexandre and Deval (2013). Plus ‘there is a general consensus that institutions matter to governance and development’ as per Kaufmann, Kraay, and Zoido-Lobaton.

So previous studies show positive relationship between rule of law and performance, providing a way to analyze its significance in Pakistan, for which following hypothesis is derived.

**H14: There is a positive relationship between Rule of law (as per Pakistan) and subsidiary performance.**

Study finds that the rule of law is generally positively related to the FDI which in turn has impact on performance, Alexander, John Seth (2014), Whereas some researches show, there is underlying the ‘security’ term which is included in the rule of law. As per “Collier”, there is negative impact of lawlessness/ insecurity on the society and its development which may
impact adversely on subsidiaries. Therefore below hypothesis is generated to analyze the effect of lawlessness/insecurity and rule of law in the parent country with effect on subsidiary performance.

**H20: There is an indirect relationship between Rule of law (as per parent’s country) and subsidiary performance.**

2.4.3 Govt. Effectiveness

As per Gene, Yujin, and Richard, “accountability and corruption, both are significantly correlated with government effectiveness”.

This evidences that the countries with high score in indexes of voice and accountability, and corruption will definitely result in government effectiveness.

**H15: There is a positive relationship between Govt. Effectiveness (as per Pakistan) and subsidiary performance.**

Whereas, in case of foreign country i.e. parent country, this relationship is assumed to be inverse as discussed above.

**H21: There is an indirect relationship between Govt. Effectiveness (as per parent’s country) and subsidiary performance.**

2.4.4 Regulatory Quality

Studies find a positive correlation between institutional quality and development on macro-level (development as per capita income) ‘Rodrik, Subramanian & Trebbi’. So it is proposed that better a country has regulatory quality, the better will be the performance of the subsidiary, functioning in that country. Thus we develop this hypothesis, in order to get access to broader spectrum about determinants of subsidiary performance.

**H16: There is a positive relationship between Regulatory quality (as per Pakistan) and subsidiary performance.**

Same as corruption perception, the more regulatory quality a country witnesses, the more they have difficulties to understand third world economies’ weak and illegal practices. This would adversely affect the subsidiary performance in the host country that is in Pakistan. For the attestation of this relationship, we developed the following hypothesis in this paper.

**H22: There is an indirect relationship between Regulatory quality (as per parent’s country) and subsidiary performance.**

2.4.5 Political Stability

In the words of Spencer and Gomez (2011), “there are some firms that view political instability as an opportunity in emerging economies. Therefore we used political Stability to see its impact in a developing country’s subsidiary performance. As Pakistan is a developing country and not an emerging one, here political instability may not be taken as opportunity rather political Stability is considered key to success of businesses.
H17: There is a positive relationship between Political Stability (as per Pakistan) and subsidiary performance.

As per “Haksoon”, for politically stable countries outflows are large, as they invest in countries with large political risks. As described above general assumptions in this sense says that there is negative impact across the country level governance indicators. Thus following hypothesis is generated to determine the impact of political Stability, whether it affects subsidiary performance or not.

H23: There is an indirect relationship between Political Stability (as per parent’s country) and subsidiary performance.

2.4.6 Voice and Accountability

As per Bird and Martinez-Vazquez (2008) there is a high correlation between corruption and voice and accountability index from Kaufmann et’ al. It means the better a country has corruption control the better will be its voice and accountability index, resultanty. Thus following hypothesis is generated to attest this relationship in Pakistan.

H18: There is a positive relationship between Voice and accountability (as per Pakistan) and subsidiary performance.

As per above discussion, political Stability and control of corruption have significantly high Correlation which tends the result to occur in the same way the control of corruption occurs. Therefore as per Bird and Martinez-Vazquez (2008) the following hypothesis is derived to see its real implication in the Pakistan’s economy.

H24: There is a direct relationship between Voice and accountability (as per parent’s country) and subsidiary performance.

2.5 Research Question

Based on the hypothesis proposed in the researches, following are the questions developed, to be answered;

1) What is the impact of MKT Growth of parent towards its subsidiary performance? Is it significant and positive?

2) What effect a larger parent company can have on its subsidiary performance?

3) What is the effect of parent company performance on its subsidiary co. performance?

4) What is the impact of R & D Investment of parent company on the subsidiary performance?

5) What is the impact of parent ownership, on the subsidiary performance?

6) Is there any impact on subsidiary performance due to its size?

7) What is the impact of capital amount of subsidiary on its performance?

8) What is the impact of Investment amount from the parent, on the subsidiary
9) What is the impact of gearing ratio (D/E ratio) of subsidiary on its performance?
10) What is the effect of inventory turnover (subsidiary), on its performance?
11) What is the impact of parent D/E ratio on its subsidiary performance?
12) What is the impact of parent’s inventory turnover ratio on its subsidiary performance?
13) What is the impact of governance indicator of Pakistan on the performance of subsidiaries in Pakistan?
14) What is the impact of governance indicator as per parent’s company on the performance of subsidiary in Pakistan?

3. Conceptual Framework

3.1 Figure 1 Showing Conceptual Framework

3.2 Summary of the Model Specified

Level-1 Model  
\[ \text{SUBSIDIA}_{it} = \pi_{0i} + e_{ti} \]

Level-2 Model  
\[ \pi_{0i} = \beta_{00} + r_{0i} \]

Mixed Model  
\[ \text{SUBSIDIA}_{it} = \beta_{00} + r_{0i} + e_{ti} \]

Where \( \pi_{0i} \) = explanatory variables on level 1 & \( \beta_{00} \) = explanatory variable on level 2.
4. Data Collection and Methodology

4.1 Sampling

Data for this study comprises 26 companies of Pakistan that are listed on PSX. (Except 1 company i.e. UPL- Unilever Pakistan Limited (former; lever brothers) which was delisted in 2013. Panel data used for this research from the year 2012 to 2018, for Parent and subsidiary attributes. All companies all blue chips companies from KSE- 100 index except one, on subsidiary level. Selected companies cover around ten sectors of Pakistan Stock Exchange. To ensure accuracy and maintain authenticity in sample, all observations extracted from the companies’ Annual published reports, obtained from their official websites.

Point to be noted is that subsidiaries here also includes associates, joint ventures, and take over as “subsidiary can be divided into two types; wholly-owned( full control) and joint venture ( i.e. partially controlled)”, in the words of “ Chiu et' al. 2015”.

All the variables were taken as percentages, therefore countries with different currencies (on parent level) needed not to be balanced for Pakistani subsidiary companies.

Whereas Worldwide Governance Indicators (WGI) is taken from World band official website.

4.2 Data & Description

4.2.1 Subsidiary level attributes

Subsidiary Performance (Dependent Variable) - Here subsidiary performance meant “financial performance”. In this paper, we aimed to measure subsidiary performance in financial terms. Each firm struggles for a unique objective i.e. economic goal and it could be financial or non-financial. Here we used financial purpose. Sales and profits of these foreign units i.e. subsidiary are connected to their strategy overall. So, here, for performance measurement of subsidiary, we took ROA as an outcome variable. Ramsey and Bahia (2013) discussed various methods, in attempt to measure a foreign business unit. Also, “Ventakraman and Ramanujam” includes ROA/ ROI/ ROS, profit margins, and growth trends, as financial way for performance calculations. Operational way is stated by Hult et al. (2008); Ramsey and Bahia (2013). Another one is also discussed above that is related to overall effectiveness, as per Hult et al. (2008); Ramsey and Bahia (2013). As Sales and profits of these foreign units are connected to their strategy overall. So financial way of calculating performance is easy, calculable and of course, mostly used (Ramsey & Bahia, 2013).

In this study, we aimed to measure subsidiary performance in financial terms. So here, ROA is adopted; an outcome variable for subsidiary performance indicator. A positive number in this regard is considered as again whereas a negative integer is referred to as a loss, to the subsidiary.

Ownership- In or to measure ownership of subsidiary, the shareholding percentage % of its parent company is assessed. It tells how many percent of ordinary, issued share capital of subsidiary is owned by parent company. As per “Wang & Hsiao” and “Chiu et al”.

Subsidiary Size- Contrary to the parent company, size of a subsidiary is measured here,
through book value of fixed assets/ noncurrent assets of the subsidiary. The reason behind is that, subsidiary company's number of employees doesn't represent its TRUE size. Therefore, log of book value of fixed/noncurrent assets is used here to depict subsidiary size. This indicator reports subsidiary resources and capabilities that belong to its own internal strength. Anderson and Reeb (2003) proved a positive relationship between firm size and book value.

**Capital Amount-** It represents the capital intensity of a firm that how much a firm is capital intensive. A firm, if wants to expend more, invests on its capital i.e. expenditure belongs to capital investment (fixed assets). This is also a study by Krugman et al. (2012). As we excluded services sector companies in this research, this is the best way to measure Subsidiary capital indicator. Thus, it is calculated as fixed assets divided by no. of employees.

**Investment Amount-** This is the amount of investment in the paid up capital of the firm by its parent company. In fact, it is the ‘amount form’ of parent company’ Ownership percentage % in its subsidiary firm.

4.2.2 Parent Level Attributes

**Market growth-** Sales is considered for this and its growth was extracted from annual accounts of related companies. Sales growth is taken as % on Year on year basis i.e. (YoY). Sales growth is related to market expansion as per ‘Lin, 2010”’. Therefore, market growth is targeted with sales percent with every increasing year.

**Firm size-** It defines the total size of parent company through its employees. Its basis is on the assumption that the greater the number of employees in a firm, the greater a firm is. Chang and Rhee (2011) suggested number of employees as a measure of firms size. “Delios & Beamish” and “Kaen and, Baumann” also used total number of employees as for firm size indicators.

**Parent Company Performance-** Same as subsidiary performance, parent company performance also falls into three dimensions namely financial performance, productivity, and effectiveness. Here, in this research, financial performance is chosen and ROA, Return on Assets is employed from companies’ annual reports. Wand and Hasiao (2014) also advocates ROA for parent company’s performance indicator.

**Research & Development(R & D) –** Research and development indicator is actually taken on the basis of sales i.e. Research and development expenditure of a firm as a percentage of its sales. This method to reach research and development indicator has been proven, as employed by Chiu et al. (2015).

**Debt to Equity ratio-** To analyze the impact of capital structure of a firm on its performance/Return on Assets, Debt to equity ratio here, is taken into account. Financial leverage usually seems obligations borne factor for a company, as a result, it may impact a company’s performance. According to Hall et al. (2000) there is a relationship between firm profitability and long-term plus short-term (both) debts. Soumadi and Hayajneh (2013), says financing from debt source more than equity, maximizes the firm performance. Thus, D/ E ratio is employed to assess impact of capital structure of firms on both levels i.e. parent and
4.3 Formulation of Indicators/Variables

The following parameters are used for calculation purposes,

- **MKT Growth** = Sales % as \(= (\text{current yr. sales/ previous yr. sales}) - 1 \times 100\)
- **Performance** = ROA as \(= \frac{\text{Net Income}}{\text{Total Assets}} \times 100\)
- **R&D Investment** as \(= \frac{\text{R & D Expenses}}{\text{Total sales}} \times 100\)
- **Parent's Co. Size** as \(= \text{average No. of employees for the year}\)
- **Subsidiary Size** as \(= \text{book value of fixed or non-current assets}\)
- **Subsidiary Capital** as \(= \frac{\text{total fixed assets/ no. of employees}}{\text{parent co.'s shareholdings in ordinary capital}}\)
- **Investment Amount** as \(= \frac{\text{parent co.'s shareholdings % in ord. capital}}{\text{total debt/ total equity}}\)
- **D/E ratio** as \(= \frac{\text{parent co.'s shareholdings % in ord. capital}}{\text{total debt/ total equity}}\)
- **Inventory turnover** as \(= \frac{\text{cost of sales/ inventory}}{\text{inventory}}\)

4.4 Methodology

Data for this research obtained from two different levels; parent & subsidiary which involve a number of variables, so it is supposed to have hierarchical data. As per Peterson et al. (2012), by managing the mixed impacts at single-level analysis, multi-level modeling approach accounts for various levels of data. Thus, to analyze hypothesis, “**HLM from Scientific Software International**” is used in this paper as HLM (Hierarchical Linear Model) can analyze numerous levels at a time. Bryk and Raudenbush (1992). Whereas, in the words of Cullen et al. (2004), “HLM suits dependent variables having simple linear relation with independent variables at each included level.

Prior researches supported HLM for data divided into different levels. In this research, these levels are subsidiary and parent companies. As a result, we used HLM in computation of our data findings from companies’ annual reports. The data used in this research consists of multiple levels, it means HLM 2 is the most suitable methodology to run it.

According to “Heather Woltman”, “HLM is justified for such type of research analysis that contains multi-models / multi modeling approach.”

4.4.1 Unconstrained (Null model) in HLM

The above model is a “one-way analysis of variation “is performed to confirm that the variability in outcome variable (here subsidiary performance), by level 2 group, is significantly different than zero. It tells whether there are any differences at the group level on the outcome variable.
“This test is a parameter on the basis of which it is decided whether or not the HLM is justified/needed”.


4.4.2 Final Estimation of Variance Components

<table>
<thead>
<tr>
<th>Random Effect</th>
<th>Standard Deviation</th>
<th>Variance Component</th>
<th>d.f.</th>
<th>$\chi^2$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRCPT1, $r_0$</td>
<td>10.48685</td>
<td>109.97394</td>
<td>25</td>
<td>291.36698</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>level-1, $e$</td>
<td>8.35731</td>
<td>69.84464</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As per chi-square $\chi^2$ estimates, in the above table:

$X^2(25) = 291.36, \ p < 0.001$; which supports HLM.

5. Result and Interpretation

Table 1. HLM result

<table>
<thead>
<tr>
<th>Level</th>
<th>Variable</th>
<th>$\beta$</th>
<th>T-ratio</th>
<th>p-value</th>
<th>$\alpha^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent</td>
<td>MKT Growth</td>
<td>0.253785</td>
<td>0.839</td>
<td>0.41</td>
<td>0.0092%</td>
</tr>
<tr>
<td></td>
<td>Company Size</td>
<td>-0.000001</td>
<td>-0.054</td>
<td>0.958</td>
<td>-0.0023%</td>
</tr>
<tr>
<td></td>
<td>Company Performance</td>
<td>0.048961</td>
<td>0.166</td>
<td>0.869</td>
<td>0.0016%</td>
</tr>
<tr>
<td></td>
<td>R &amp; D Investment</td>
<td>-0.628347</td>
<td>-1.626</td>
<td>0.117</td>
<td>-0.0656%</td>
</tr>
<tr>
<td></td>
<td>D/E ratio</td>
<td>0.146195</td>
<td>0.8</td>
<td>0.431</td>
<td>0.0056%</td>
</tr>
<tr>
<td></td>
<td>L.T.O times</td>
<td>0.275234</td>
<td>1.737</td>
<td>0.095</td>
<td>-0.0063%</td>
</tr>
<tr>
<td></td>
<td>Control of Corruption</td>
<td>-6.511926</td>
<td>-1.574</td>
<td>0.129</td>
<td>0.0102%</td>
</tr>
<tr>
<td></td>
<td>Rule of Law*</td>
<td>-10.248249</td>
<td>-2.159</td>
<td>0.041</td>
<td>14.8117%</td>
</tr>
<tr>
<td></td>
<td>Government Effectiveness*</td>
<td>-13.088159</td>
<td>-2.313</td>
<td>0.03</td>
<td>0.0291%</td>
</tr>
<tr>
<td></td>
<td>Regulatory Quality</td>
<td>-6.349173</td>
<td>-1.148</td>
<td>0.262</td>
<td>0.0105%</td>
</tr>
<tr>
<td></td>
<td>Political Stability*</td>
<td>-8.202301</td>
<td>-2.079</td>
<td>0.048</td>
<td>0.0210%</td>
</tr>
<tr>
<td></td>
<td>Voice &amp; Accountability</td>
<td>-6.393159</td>
<td>-0.964</td>
<td>0.345</td>
<td>0.0084%</td>
</tr>
<tr>
<td>Subsidiary</td>
<td>Ownership</td>
<td>0.137988</td>
<td>0.469</td>
<td>0.639</td>
<td>-0.5292%</td>
</tr>
<tr>
<td></td>
<td>Subsidiary Size***</td>
<td>-3.89963</td>
<td>-3.271</td>
<td>0.001</td>
<td>6.5913%</td>
</tr>
<tr>
<td></td>
<td>Subsidiary Capital*</td>
<td>-3.200676</td>
<td>-1.999</td>
<td>0.047</td>
<td>2.0354%</td>
</tr>
<tr>
<td></td>
<td>Investment Amount</td>
<td>15.64343</td>
<td>1.021</td>
<td>0.309</td>
<td>0.0287%</td>
</tr>
<tr>
<td></td>
<td>D/E ratio</td>
<td>-0.237873</td>
<td>-1.422</td>
<td>0.157</td>
<td>0.6941%</td>
</tr>
<tr>
<td></td>
<td>L.T.O times**</td>
<td>1.417258</td>
<td>2.884</td>
<td>0.005</td>
<td>4.9728%</td>
</tr>
<tr>
<td></td>
<td>Control of Corruption</td>
<td>12.084318</td>
<td>1.81</td>
<td>0.072</td>
<td>1.5475%</td>
</tr>
<tr>
<td></td>
<td>Rule of Law</td>
<td>10.859424</td>
<td>1.152</td>
<td>0.251</td>
<td>0.2223%</td>
</tr>
<tr>
<td></td>
<td>Government Effectiveness***</td>
<td>28.490635</td>
<td>3.246</td>
<td>0.001</td>
<td>6.4801%</td>
</tr>
<tr>
<td></td>
<td>Regulatory Quality***</td>
<td>50.885566</td>
<td>3.334</td>
<td>0.001</td>
<td>6.8735%</td>
</tr>
<tr>
<td></td>
<td>Political Stability</td>
<td>4.836509</td>
<td>0.942</td>
<td>0.348</td>
<td>-0.0754%</td>
</tr>
<tr>
<td></td>
<td>Voice &amp; Accountability*</td>
<td>11.366437</td>
<td>2.8</td>
<td>0.006</td>
<td>4.6485%</td>
</tr>
</tbody>
</table>

*Note. Dependent Variable= Subsidiary Performance $P < 0.05$, $p < 0.005$, $p < 0.001$. 
Concluded that, HLM is a best fit model for parent-subsidiary level analysis. For HLM validity, ‘null (unconstrained)’ model test also run for p-value(< 0.001) which in turns proved its suitability to this data.

5.1 Parent Level Interpretation

Level 2 i.e. parent company level depicts that;

Rule of Law with p < 0.041, b = -10.24 has negative and significant effect on subsidiary performance. So, H20 is supported. Government Effectiveness with p < 0.03, b = -13.088 has negative and significant impact on subsidiary performance, so H21 is supported, and Political stability with p < 0.048, b = -8.202 has significant and negative impact on the Subsidiary Performance in Pakistan, here H23 is supported. Although MKT Growth (H1), Parent’s performance (H3), and D/E ratio (H11) are not significant still they are supported by their impact i.e. positive, positive, and negative respectively.

Whereas, Variance column shows how much each variable explains the variations in the Subsidiary performance. Resultantly, Rule of law explains 14.8%, Govt. effectiveness explains 0.029% and, Political stability explains 0.021% variations in the subsidiary performance.

5.2 Subsidiary Level Interpretation

On the other hand Level 1 i.e. Subsidiary level results show that; Subsidiary size p < 0.001, b = -3.899 has a negative and significant impact So, H6 is significant. Subsidiary capital p < 0.047, b = -3.2 has negative and significant impact means H7= Significant. I.T.O times p < 0.005, b = 1.417 has a positive impact, here H10 is supported. Government effectiveness p< 0.001, b = 28.49 has positive and significant impact, H15 = supported. Regulatory quality p < 0.001, b = 50.88 has a strong positive and significant impact, so H16= supported. Voice & Accountability within Pakistan p < 0.006, b= 11.36 has a positive and significant impact on the outcome variable that is Subsidiary performance so, H18 is also supported. Although Investment Amount( H8), D/E ratio (H9), Control of corruption (H13), Rule of law (H14) and political Stability (H17) are not significant in this developing economy but proved as per their impact i.e. positive relationship in all these hypothesis same as previous studies.

Whereas, on the basis of Variation- α² it can be predicted that; Subsidiary size α²= 6.59%, Subsidiary size of Pakistani Subsidiary explains 6.59% variations in the subsidiary performance. Subsidiary capital = 2.03%, which explains its role in the subsidiary performance variations. I.T.O times α²= 4.9%, i.e. variation caused by I.T.O times in the Subsidiary performance. Govt. effectiveness α²= 6.4%, meaning 6.4% variations are explained by Govt. effectiveness in the subsidiary performance outcome. Regulatory quality α²= 6.8% i.e. variation by Regulatory quality indicator, in the Subsidiary performance. Voice & Accountability α²= 4.6%. As a result Voice and Accountability contributes 4.6% Variations in the subsidiary performance.

5.3 Intra Class Correlation

The ICC – intra class correlation defines the impact on subsidiary performance at group level
as well as at individual level.

The model ICC – Intra Class Correlation is calculated as:

\[
\text{ICC} = \frac{\pi_{00}}{\pi_{00} + \alpha}
\]

Here, from table 1 given below;

\[
\alpha^2 = 69.84464 \\
\pi_{00} = 109.97394
\]

So as per ICC = \(\frac{109.97}{109.97 + 69.84}\) = 0.6115

ICC = 0.6115 or 61.15%

This result suggests that 61% of the variance in subsidiary performance (outcome) is at the group level while 39% variance is at individual level.

5.4 Table 1 from HLM

Iterations stopped due to small change in likelihood function

\[
\sigma^2 = 69.84464 \\
\tau
\]

\[
\text{INTRCPT1, } \pi_0 
\]

<table>
<thead>
<tr>
<th>Random level-1 coefficient</th>
<th>Reliability estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRCPT1,(\pi_0)</td>
<td>109.97394</td>
</tr>
</tbody>
</table>

The value of the log-likelihood function at iteration 4 = -6.421066E+002

6. Discussion

6.1 Parent Level Results

As per our expectations, MKT growth of parent company represents a positive impact on the subsidiary performance. This result indicates that the strategy of MKT expansion by the parent can lead to a positive impact on FDI strategy (Lin, 2010), same researched by “Hou, Buckley, and Casson”. However, on the ground of significance, this result fails meaning that even after positive impact, MKT growth may capture only little influence. This study, therefore rests with the research of “Andersson et al. 2001 and Fang Yi lo” who declares that for the subsidiary, its firm’s MKT expansion might be a less influencing/ weaker indicator. Plus, level of variance is too high in this case, (approx. 70%) which is a limitation in the HLM Software; for statistical analysis. This high variability can cause little disruption in the accuracy of results. So, data could not reach to the level of required significance.

Moreover, if the subsidiary in Pakistan has only manufacturing-related business (same in this paper, we chose mostly manufacturing related companies) then MKT growth will not continue to rise as they are not here for targeting the host country. It means they are here for
efficiency and resource seeking i.e. to exploit cheaper cost of production.

Company size analysis towards its subsidiary performance shows that there is a negative and significant impact, which is quite different from our expectation. “Chibber and Majumdar”, “Wang and Hsiao” states that larger firms are more capable to support its subsidiary. But in this case of Pakistan, parent company size has no significant impact in fact a negative impact. It is most probably due to a developing market. Whereas other researches are done in the emerging MKTs, in emerging economies, parents’ intention is to hold strong and everlasting control so, there exist more chances to deliver its information, skills and other resources, to the subsidiary and thus this will cause subsidiaries, in other economies, to receive less likely help out from its parent.

Company performance of parent is witnessed having positive impact on the subsidiary performance as expected. This results in the case of Taiwanese firms’ investment in the China (Lin). But it is insignificant due to the same factors behind it that are influencing the MKT growth. Plus performance is measured by ROA in both levels rather than previous studies in which ROI is used of subsidiary evaluation, which could be another reason for its significance.

R & D Investment result shows insignificant and negative impact as it is not crucial attribute, said “Lin”. It is contradictory to the hypothesis and some previously discussed researches like Caves “Markusan, Lu, and Beamish“. One contributing factor can be generalization of the several industries as “industries/ sectors with unlike nature/ forms may reveal unlike/unique outcomes”, said, Lee et al. (2013).

D/E ratio shows positive impact contrary to our generated hypothesis. It is insignificant. As per “Soumadi and Hayaajneh” researchers have not revealed much about its impact especially in abroad/parent level perspective. Therefore it will be a unique discovery that Pakistani subsidiaries have not much influenced by D/E ratio of its parent company. In Pakistan, registered companies can easily avail debt offers, which in turn help them to recover any deficit financing caused by parent’s increased D/E.

As per I.T.O. results, it has positive and insignificant impact which is against the research of “Jin and Shimming”. This is another new discovery as “Jin and Shimming” used local data instead of foreign parent companies. We used manufacturing companies in data. Whose parents are involved in multiple businesses besides manufacturing alone thus this may be reason plus this not valid as it is highly insignificant.

Parent company institutions also showed interesting results, some remain insignificant in explaining their subsidiary performance i.e. control of corruption, Regulatory quality, and Voice and accountability. However, the effect of Rule of law, Govt. effectiveness, and Political stability seems to be significant but negative. This seems to suggest that parent company institutions are inversely impacting performance of their subsidiaries. This could be because most developed countries have high-quality institutions, when these companies invest overseas, they have to follow extra stringent controls that would increase the cost of operation. This would be recovered in long run as they achieve sustainability and market
share, but in short run, this does not seem to affect performance. Another reason might be an act of understanding of local market conditions and culture. When parent companies with high-quality institutions invest in countries where institutions are weak, they are not used to the working conditions and culture that could bypass the hindrance face when there is a high level of corruption for example. A Pharma company could have problems in approval of their medicine due to corruption, and these companies could find it harder to work in these conditions. On the contrary, Parent companies where institutional quality is similar to the subsidiary would apply same practices as they do at home, to work around the hurdles that they face in the host country.

6.2 Subsidiary Level Results

Ownership declares a positive impact that is remained aligned with the previous researches including ‘Boermans and Roelfsema’. It means the more ownership a parent company holds, the more likelihood is there to have a boost in the performance of the subsidiary company. Results remain insignificant, this might be due to controlling factor of parents as data included wholly controlled subsidiaries plus joint ventures with less control as per “Chiu et al”. Whereas, ownership level is now less important factor determining the subsidiary performance, researched by “Hansen and Gwozdz”. This may cause it to result insignificantly.

On the grounds of subsidiary’s resources and capabilities, subsidiary size ad subsidiary capital amount (owned) resulted as per our expectations i.e. positive and significant.

Investment amount shows huge positive impact still insignificant it means in Pakistan, larger investment from parent company may not ensure subsidiary performance as this resource (as per RBV, investment which is from parent, is a resource for subsidiary ) has not declared a useful source here, so it doesn’t influence subsidiary performance much. Subsidiary has to focus on internal management as well, as only huge investment is not sufficient for subsidiary performance.

D/E ratio result shows a negative insignificant impact on subsidiary performance which is not as per generated hypothesis. It means Pakistani subsidiaries are not capable of bearing debt obligations as it has negative impact although it seems insignificant. This study rests with “Alom” who said that debt usually gets failed to be invested in profitable venues.

I.T.O in our research shows positive and significant impact which is totally as per expectations.

It means there is the same amount of increment in the subsidiary performance, with respect to the parent company’s I.T.O of that respective company.

Control of corruption represents a positive insignificant impact. It is as per hypothesis still insignificant which may be due to Pakistani concept of corruption. World Bank can never encompass all aspects of corruption controls like Islamic persuasions, self – moral ethics etc. This could result in insignificant result.

Rule of law indicates that there exists a positive correlation. It means subsidiary performance
is affected by the magnitude, the rule of law increases. This result is as per expectations. Though it is insignificant because rule of law is not much influencing factor same as control of corruption. Plus, rule of law in Pakistan is not much emphasized and employed upon in institutions which leaves it insignificant.

Political stability is showing a positive result still insignificant which is due to the fact that somehow political instability is taken as an opportunity, “Spencer and Gomez”. Plus Pakistan is used to these situations since its inception and obviously can exploit such circumstances.

Govt. effectiveness, regulatory quality, and voice & accountability show positive and significant impact which completely shows compliance with the generated hypothesis.

7. Conclusion

The paper reveals some new methods, for calculating subsidiary performance, through multi-level modeling, as it used two (upper and lower) levels of variables. On parent side, we used MKT growth, company size, company performance, and R & D investment; on subsidiary level we took ownership, size, capital, and investment amount while D/E ratio, I.T.O., and, WWI also used for both levels.

As per results, we found that; on parent level; Rule of law, government effectiveness, and political instability impact subsidiary performance significantly. It means the gap analyzed here i.e. world governance indicators, reflect a huge influence on subsidiary performance. Whereas remaining variables i.e. MKT growth, company size, company performance, R & D Investment, control of corruption, regulatory quality, I.T.O., voice, and accountability does not prove to be significant thus are not critical in determining subsidiary performance.

On subsidiary level, attributes like subsidiary size, subsidiary capital, and I.T.O. shows significant effect on subsidiary performance which is quite expected from previous studies. Under WWI – world governance indicators; government effectiveness, voice and accountability and, regulatory quality reflects significant impact. For internal attributes, RBV states that a firm with greater resources has chances to perform well, comparatively. Subsidiary capital and size are true resources a company utilizes to generate more and more profits.

While, study also reveals that some seemingly critical variables are not much critical, especially in the case of a developing country (according to ranking of WESP- World Economic Situation and Prospects). Pakistan. Here, ownership, investment amount, D/E ratio, control of corruption, rule of law and, political instability has no significant effect on subsidiary performance.

It clearly shows through above research that companies' internal attributes and huge capital and size can eliminate the country-level governance indicators. The research will widen the practical exposure and implications of companies, as they will focus on the internal attributes in pursuit of subsidiary performance. And, macro factors will also contribute in internationally important decision making.

Hence, we can say that the companies own resources and capabilities are the most crucial
factors affecting the subsidiary performance significantly and for sure directly. It is recommended to focus on internal attributes of the subsidiary companies in Pakistan rather than focusing on the parent’s internal attributes. Whereas, on the ground of governance; parent companies’ and subsidiary companies’ governance indicators are almost equally crucial.

8. Limitations

Firstly, data for this research was obtained through official annual reports of the respective companies, from 2012 to 2018 and some of the companies have shown there controlling interests in subsidiaries after 2015 or 2016 (as before that they didn’t own any subsidiary in Pakistan) plus some balance sheets have missing data so HLM software deleted that missing data, automatically while conducting results. This limits the full exploitation of all observations. Secondly, in this research, we worked on generalization principle i.e. companies from different sectors have been taken and considered as a whole on the basis of aggregation. Only parent or subsidiary level data are considered separately while this data ignores industry/ sector vice differences that vary from company to company and sector to sector.

Thirdly, the defaulter companies on the Pakistan Stock Exchange-PSX are not a part of data which shows survival bias towards the non-survived companies in Pakistan. This was due to non-availability of defaulter’s financial reports on PSX.

Another factor we faced is the comparison between highly emerging, emerging, and differently emerging countries (as on parent level) and a single developing country, Pakistan. Due to this, different countries with different governance indicators were generalized in a single level i.e. Parent-level which is reasonably opposed to Fang- Yi Lo methodology who worked for only two economies of same dimension i.e. China and Taiwan.

In Pakistan, there are very few MNCs having more than two subsidiaries so such limit is valid/ acceptable in such unique economy of Pakistan.

9. Future Recommendations

In coming years sector vice researches may reveal industry basis impacts on the subsidiary performance. Whereas defaulter companies’ data if included, will reveal a broader picture on the spectrum of determinants of subsidiary performance. But this would require numerous years to wait and gather data because on sectorial basis hardly few sectors have MNCs subsidiaries in desired quantity. And, for defaulter's data each and every company has to be visited frequently on higher level in order to get defaulter’s ‘confidential and hidden database.

Above gap is a challenge as well as an opportunity to extend the findings of our result and to define new determinants of subsidiaries' performance in Pakistan. Thus, for subsidiary performance assessment, especially in developing countries, this study highly recommends the defaulter and sectorial data inclusion for future studies.
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