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A Small Club: Distribution, Power and Networks in Financial Markets of Pakistan

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and Networks in Financial
Markets of Pakistan**

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ABSTRACT

“For all practical purposes, the 22 families had preempted most investment permits, import licenses, foreign credits and government patronage because they controlled or influenced most of the decision-making forums handing out such permissions. They had virtually established a stranglehold on the system and were in a position to keep out any new entrepreneurs.

The 22 families were a by-product of government policies and a primitive capitalistic system. The Government did not have the courage to change the company law of 1913 under which the industrial sector of Pakistan was still being governed in 1968. This antiquated framework of capital permitted the industrial sector to have managing agencies, cartels, trusts and all other anti-social practices aimed at cheating both the consumer and the Government. The latter became both a conscious and unconscious ally of the private industrialists by giving them generous protection, excessive tax concessions, explicit and hidden subsidies, and representation on many decision making forums.”

Mahbub Ul Haq

“System is to Blame for the 22 Wealthy Families”

(Article published in ‘The London Times’, March 22, 1973)

<https://mhrc.lums.edu.pk/speeches-dr-mahbub-ul-haq>

1. THE STOCK MARKET THAT DOES NOT GROW!

Pakistan's stock market tends to make headlines, sometimes because of record highs that make it the 'best performing market of the region', and sometimes because of the crashes. However, the degree to which it contributes to capital formation in the country is not a topic of study, while the ensuing ownership and governance structure is hardly ever made a part of public discourse.

One such study¹ concluded that "around 64 percent of the 44 selected sample companies are controlled by prominent business groups and families of Pakistan". This paper extends the aforementioned research to cover the top 100 companies that constitute the benchmark KSE-100 index² at the Pakistan Stock Exchange (PSX). It also analyses the structure of ownership and sponsor control of companies constituting the KSE-100, and their impact on the functioning and transparency of the stock market.

Pakistan's corporate governance and human resource management practices are frequently questioned in the media and academic circles. A common phenomenon is companies managed as family enterprises despite being listed on the stock exchange. The offspring of the owners tend to be absorbed into the management of these companies, which are referred to as '*seth companies*', *seth* being the founder/owner of the company.

The objective of this paper is twofold. The first is to shed light on corporate groups and their ownerships in the stock market. We review the ownership structures of the large conglomerates to examine the extent of diversification in the stock market. This also gives us an idea of the kind of power that large houses wield in the market, and the choices available to the small shareholder. Secondly, we look at corporate governance by looking at how company boards are structured and examine the influence of the owner and his family on the structure and professional management of the company.

Prevailing accounting standards and listed entity regulations require disclosure of shareholding by directors, and significant shareholding of more than five percent held with legal persons (individuals or companies), in addition to those held with associated undertakings, banking and financial institutions, trusts, etc. Using data from disclosures in 2018, this study focuses on directorship and significant shareholding of five percent or more for all listed entities that constitute the KSE-100 index and uses it as an indicator of 'control' and concentration of ownership in the top 100 companies.³

¹Shareholding pattern of corporate sector in Pakistan, an insight on dominance of business groups and families over corporate ownership structure, ICMAP, 2011.

²28 Feb. 2019.

³Ownership data for one listed company was unavailable.

Box 1: KSE-100

“The KSE-100 Index was introduced in November 1991 with base value of 1,000 points. The Index comprises of 100 companies selected on the basis of sector representation and highest Free-Float Capitalisation, which captures around 80 percent of the total Free-Float Capitalisation of the companies listed on the Exchange. Out of the following 36 Sectors, 35 companies are selected i.e. one company from each sector (excluding Open-End Mutual Fund Sector) on the basis of the largest Free-Float Capitalisation and the remaining 65 companies are selected on the basis of largest Free-Float Capitalisation in descending order. This is a total return index i.e. dividend, bonus and rights are adjusted. Index Expert Committee (IEC) of PSX recommended to the governing board of directors of the Pakistan Stock Exchange Limited (PSX) in early 2012 to implement the KSE-100 Index on the basis of free-float market capitalisation. In the meeting held on April 24th, 2012, the governing PSX Board ratified the IEG recommendation. The Free-float based KSE-100 was calculated parallel to the full-cap KSE-100 Index since 11th June 2012 and the recomposed KSE-100 Index based on free-float methodology effective from October 15th 2012. In this transition, the Rules for composition and re-composition of the Index based on free-float methodology have remained un-changed other than selection of companies on the basis of free-float market capitalisation as against total market capitalization.”

From. https://www.psx.com.pk/psx/themes/psx/documents/BrochureKSE100_Idx.pdf

The paper also attempts to identify the extent of shareholding concentration of business groups and business families with the caveat that secondary information was obtained from web search for prominent business family surnames, where a grouping of two or more members as “family” does not qualify under the legal definition of dependents.

However, the objective behind the identification of business groups and families is to examine the extent of ‘true’ free-float—i.e. percentage share held by members that are not a part of a significant, or substantial, shareholding, or of a sponsor family. The findings may help address generally held concerns regarding concentration of ownership in KSE-100. This would help determine whether stock prices of these companies reflect the true sentiments of non-affiliated minority buyers and sellers in a freely functioning market, or, are heavily influenced by those with access to material information regarding firm operations, i.e. directors or significant/substantial shareholders with access to key management information and personnel.

The Code of Corporate Governance dictates that the Board of Directors act as a trustee to protect all investors of the firm, whether they belong to the sponsor group or are classified as minority shareholders. However, the study finds that within firms that constitute the KSE-100 index, members belonging to a few sponsor families serve on multiple boards. This raises the risk of these board members acting in concert to protect sponsor interests over the interests of minority shareholders. Thus, future research could analyse the motives for public listing if the shareholding remains concentrated amongst a select few despite higher costs (and penalties) associated with disclosure requirements for listed entities.

2. CORPORATE GOVERNANCE MATTERS

Corporate governance structure specifies the distribution of rights and responsibilities between the many different components of a corporation, such as the Board, managers, shareholders, and other stakeholders, and spells out the rules and procedures for making decisions on corporate affairs. By doing this, it also provides the structures through which the company objectives are set, and the means of attaining those objectives and monitoring performance.

Quality corporate governance has underpinned spectacular economic growth in many countries. Firms, which are the basic unit of economic value creation, are the most productive of entities in advanced and emerging countries. The legal regulatory framework of a company, and the evolution of good corporate governance systems and rules, has allowed the separation of ownership and management, thereby allowing arm's length investing in economic enterprise with assurance (Berle & Means 1932; Jensen & Meckling 1976).

If the management, or the sponsor of a firm, is unable to show that decisions regarding the management of assets, profit earnings, and sharing, are transparently in the interests of the shareholders, trust between the two parties will erode. The result will be less than optimal investment leading to stunted growth. Countries unable to develop good corporate governance practices will therefore show low rates of investment and growth (Cueto 2007).

Efforts to improve corporate governance in Pakistan have been made sporadically but much more needs to be done. In the journal of the Pakistan Institute of Corporate Governance, which USAID set up in the early 2000s, Salman and Siddiqui summed up the state of corporate governance:

“In terms of compliance, it has been more of a box-ticking exercise since 2002. Company law has been the basis of corporate governance but there have been issues of ownership and oversight. When chief executives are also owners and not independent, there would be vested interests in the implementation of corporate governance. Ownership has to be separated from the executive to provide a basis for oversight and good governance.”

In Pakistan, research on corporate governance has remained weak, mainly relying on examining the larger relationship between the variables of ownership transparency, profitability, and growth of the firm (see Box 2). What is missing is a detailed examination of a firm's ownership structure and the composition of the board. The prime objective of this study is to shed light on the interplay of ownership and control by examining the composition of boards and the structure of ownership in the KSE-100.

Box 2: Selected Results on Corporate Governance in Pakistan

- Kozhich and Hamid (2006) stated that the majority of corporations in Pakistan are family-controlled. Moreover, since the equity culture has been slow to develop, the market remains shallow and is skewed towards a few major companies.
- Javed and Iqbal (2010) claim that size and better corporate governance practices have a positive correlation.
- Yasser et al. (2011) provide evidence of a positive significant relationship between ROE, profit margins, and three corporate governance mechanisms (board size, board composition and, audit committee).
- Ameer (2013) posited that one of the causes of poor corporate governance in Pakistani companies is the ineffectiveness of independent non-executive directors in Pakistani companies. A lack of understanding, inadequately trained personnel, coverage, and policies, etc. further add to the deficiencies in the effectiveness of corporate governance programs.
- Shamsi (2014) points to the lack of adequate compliance with the available code of corporate governance by companies.
- Aziz et al. (2019) note that some major principles of good governance are fairness, accountability, responsibility, and transparency, which are not fully embedded in Pakistan's corporate culture. International standards are still not followed, resulting in a slow developmental pace.
- Government interventions in Asia exacerbate the risk of favouring one sector of society over another, such as providing subsidies and loan guarantees for family-owned companies (Arthur M. Mitchell and Clare Wee, 2004)
- Luqman et al. (2018) found that better corporate governance structures and more dispersed ownership reduces the probability of financial distress.

KSE-100 Shows High Concentration

KSE is heavily skewed with the top 10 companies constituting more than half of total market capitalisation. Annual reports show that directors or significant shareholders (73 percent of total) hold ownership of over PKR 4.963 trillion out of a total market cap of PKR 6.8 trillion. This means that minority shareholders, holding less than 5 percent each, hold about 25 percent of the shares in each KSE-100 firm. Large firms such as Phillip Morris, Pakistan Tobacco, and Pak Suzuki are listed as mostly accounted for, as one or two legal owners hold over 90 percent of shares in the company.

Accounted for: Shareholding that are held by large shareholders (with more than 5 percent and reported in annual report).

Unaccounted for: held by shareholders less than 5 percent shareholding

Who Owns the KSE-100?

Figure 1 shows different categories of entities that have ownership in the KSE-100 and share each owns. These categories include the national government, foreign holding companies, local holding companies, and employee funds etc. Together, the ownership of KSE-100 can be traced to 374 entities, which includes a special category of all unidentified individual owners.

Fig. 1. Overall Ownership of KSE-100

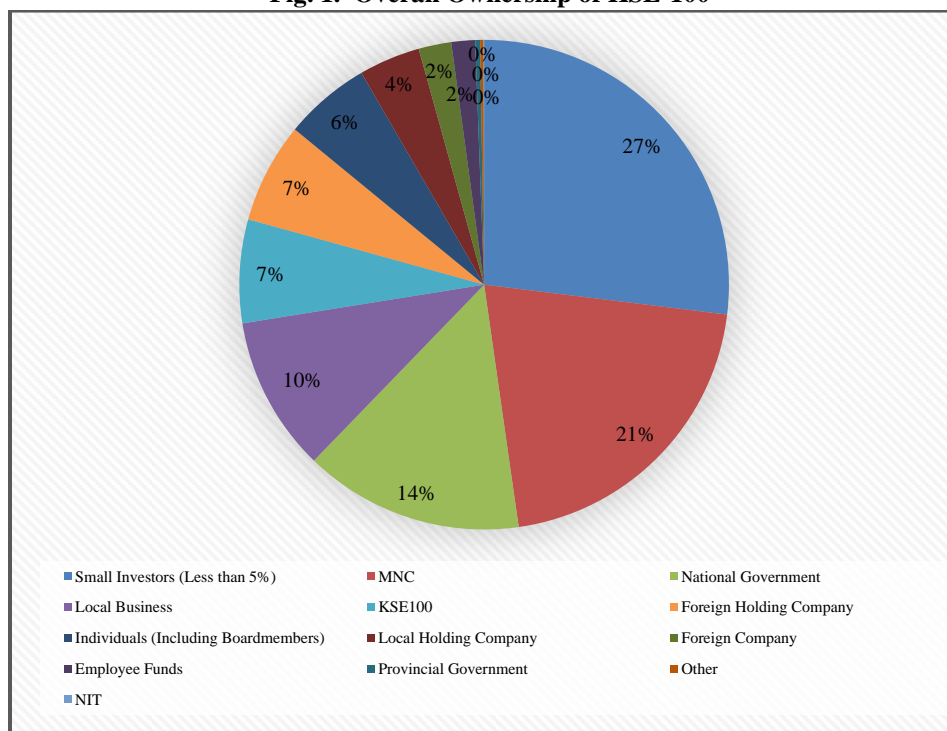
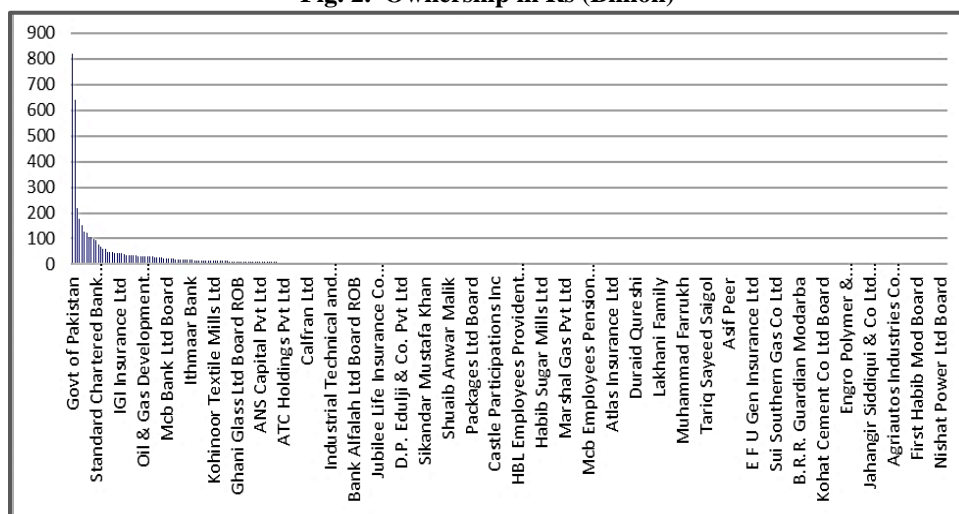


Fig. 2. Ownership in Rs (Billion)

Multinational companies, or MNCs, are the single largest category of shareholders in KSE-100 typically denoting a holding-subsidary relationship with a foreign principle and a local subsidiary. For example, British American Tobacco accounts for 9 percent of market capitalisation for KSE-100 through its controlling share in Pakistan Tobacco Company. Collectively, close to 41 percent of ownership in KSE-100 index firms is held with MNCs, whether foreign holding companies or other foreign entities, with a significant shareholding of over 5 percent each.

The second largest category of owners is the National Government, where the Government of Pakistan, directly and indirectly, is an investor through public sector enterprises and corporations such as State Life, State Bank of Pakistan, Privatisation Commission, WAPDA, etc.

We refer to ownership of shares of a KSE-100 company by another KSE-100 company as intra KSE-100 ownership, while local non-KSE-100 companies are Pakistani companies not listed in the KSE-100. Interestingly, intra KSE-100 ownership accounts for just 9 percent of accounted market cap, whereas local non-KSE-100 companies and local holding companies together account for 20 percent of KSE-100 market cap. Individual owners, such as board-members, account for a total of 6 percent market capitalisation, whether in their capacity as directors, director-owners, or non-director significant shareholders. In contrast, provincial governments, public sector banks, and NIT together account for just 1 percent of market capitalisation.

Foreign shareholders and government ownership account for the bulk of ownership in KSE-100 market capitalisation, an estimated 61 percent. (see Table 1)

The ownership of KSE-100 market cap is heavily skewed towards a few large investors. For example, the single largest shareholder is the Government of Pakistan, which accounts for over 12 percent of market capitalisation with its controlling/substantial shareholding in KSE-100 heavyweights such as OGDCL, PPL, K-Electric, Mari Petroleum, PTCL, PSO, SNGPL, among others. Together, the top 10 owners account for 37 percent of the market capitalisation of KSE-100.

Table 1

<i>Shareholding Proportions in KSE-100 (Market Cap)</i>	
Owner	Percentage of KSE-100 Market Cap
Govt. of Pakistan	12.07
British American Tobacco Ltd	9.39
Nestle S.A	3.23
Philip Morris Investments B.V	2.59
Fauji Foundation	2.21
Bestway Holdings Ltd	1.87
Aga Khan Fund For Economic Development	1.78
KES Power Ltd	1.59
Ibrahim Holdings Ltd	1.54
Engro Corporation Ltd	1.44

3. NETWORKS AND SUBNETWORKS

3.1. Shareholder Networks

Graph theory uses mathematical structures, or graphs, to demonstrate pairwise relationships. In the theory, a component is a subgraph where any two nodes are connected either directly or indirectly. Here we look at common shareholders of companies with holdings of more than 5 percent in each company. Thus, if companies A and B are in the same node, both of them could have common shareholders, holding 5 percent or more of each company's shares. Furthermore, these relationships could be 'indirect' where there are one or more intermediaries between them; for example, A owns shares in C, which owns shares in B. Thus, component structure points towards the interconnectedness of ownership among the KSE-100 companies. If all companies existed in one large component, then their ownership would be interconnected at a higher level, possibly being driven by the same sources. If there is a large number of small components, then company ownership is scattered and companies have little financial linkage to each other.

The Figure 3 shows one large component in the centre, surrounded by 37 other smaller components on the peripheries.

The Figure 4 shows how large investors own most of the KSE. Large shareholders hold more than 60 percent on average of the components of the KSE-100. Components 26, 27, and 34 are such examples. They have over 94 percent of ownership accounted for by one or two owners, each. These are prime examples of KSE-100 companies that have little engagement with either the public, or the rest of the market. Furthermore, Component 26 accounts for over 9 percent of total market cap, thus making up a significant portion of total market cap but with little or no engagement with the market.⁴

3.2. Network of Families: Mahbub Ul Haq Redux

We repeat the same exercise, this time including the family affiliations we know of. Thus, for individuals in the network who are members of the 31 families we identified, we add links to their family node as well. These family nodes can be seen

⁴ Details of each component are given in the Appendix.

Fig. 3. Common Shareholding

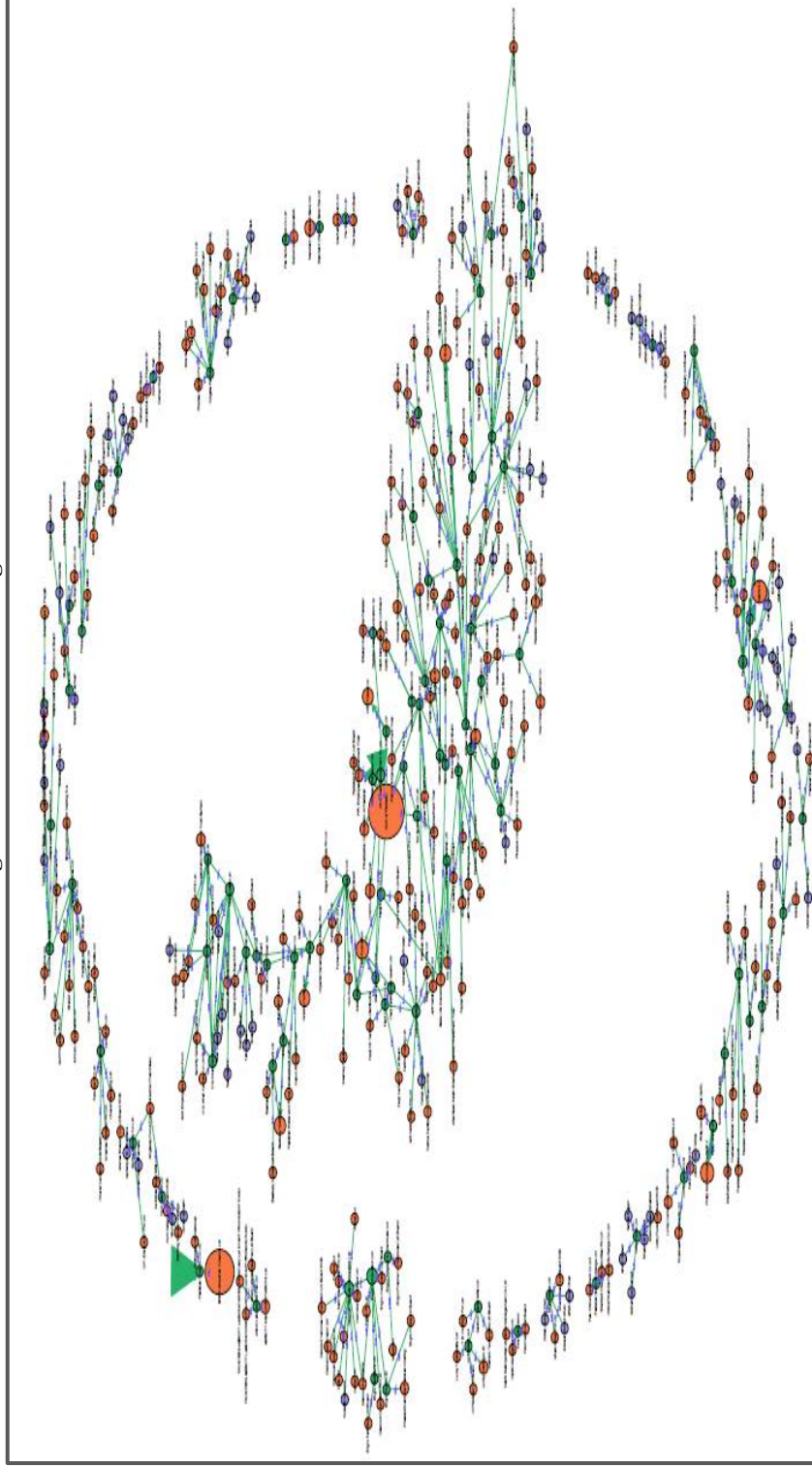
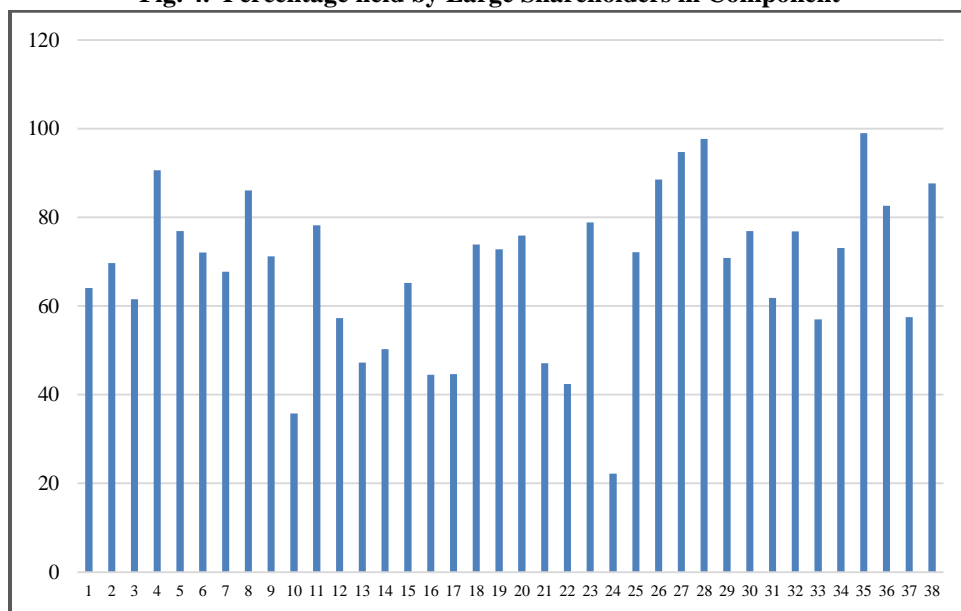


Fig. 4. Percentage held by Large Shareholders in Component

below in red (see Fig. 5). Mahbub Ul Haq famously pointed to 22 families owning Pakistan. In 2018, when the data was collected, 31 families dominate the KSE.⁵ Of course, this is after accounting for the government, multinationals, and the army. Of note is the fact that the families have a fair degree of influence in the businesses because of haphazard privatization and relatively lax multinational regulation.⁶

The analysis results in fewer clusters as different clusters are linked through family associations, i.e. if two members of the same family initially owned shares in companies that were previously in two different clusters, these clusters would now be linked since the same family has ownership in both.

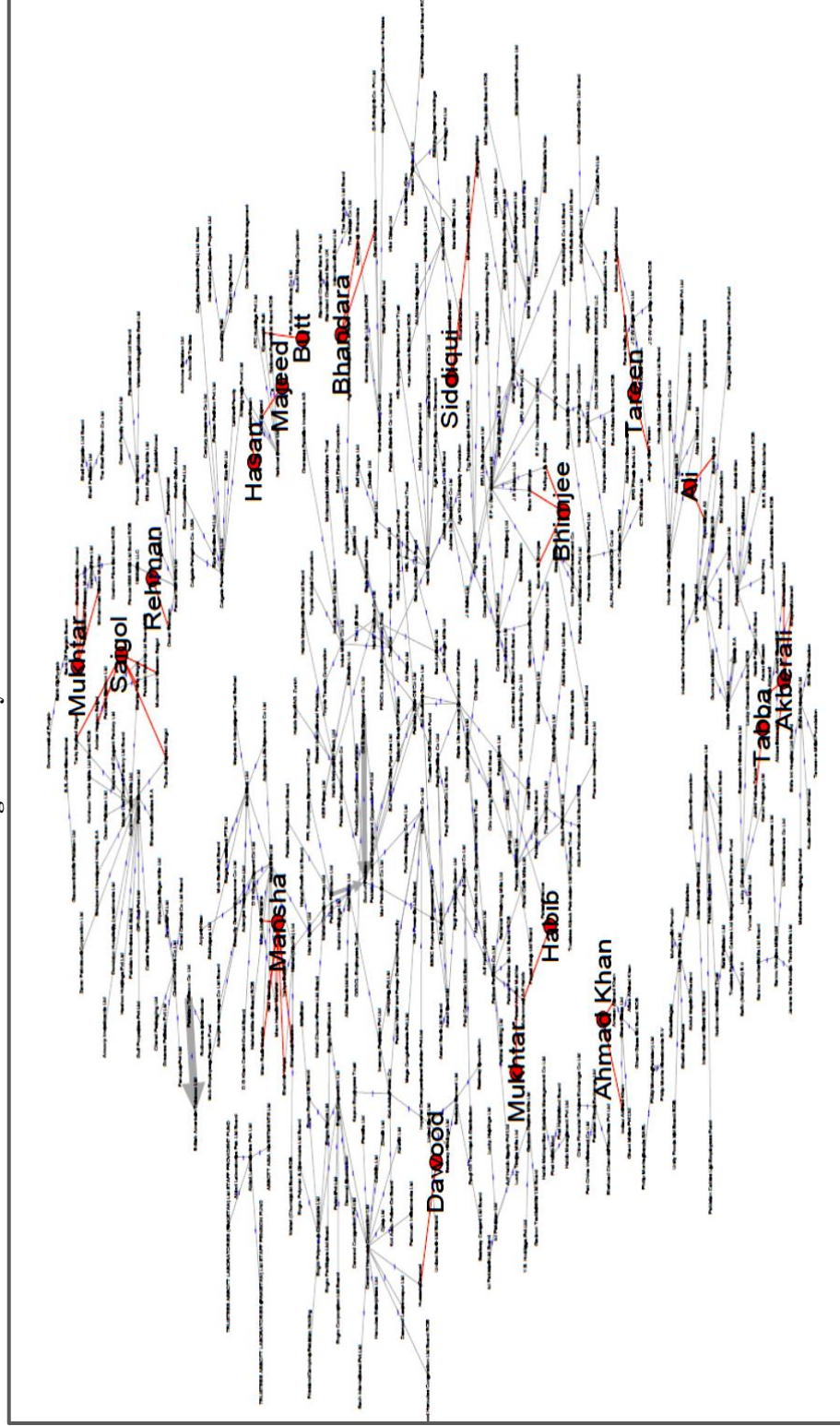
Apart from allowing us to aggregate family ownership in the KSE-100, changes in the structure of the network point to the influence of family ties on the overall structure of the network. If we consider family association unimportant, then the network looks as it did previously. On the other hand, if we consider families to be an important consideration, then this second network gives an insight into the ownership network at a family level.

Looking at the Table 1, we now also add the field for the number of families in each cluster. Clusters that only have a single family are usually family groups running their own business groups. In other clusters, we can see multiple families associated through shared ownership. The largest one here is Component 0, which now has 51 KSE-100 companies. It contains six families linked through shared investors and investment.

⁵ SECP guidelines require companies to identify each director as one of three categories – Executive, Non-executive and Independent. We have used these classifications in our analysis.

⁶ Individual profiles and family linkage data gathered from sources on the internet, including company websites and interviews.

Fig. 5. Family Clusters



4. CORPORATE GOVERNANCE: WHAT BOARD MEMBERSHIPS TELL US!

The 100 forms in the index have 880 positions—8.8 on average for a company. The distribution ranges from three to 17 as shown in Figure 6. These positions are filled by 756 unique individuals, with some occupying several positions. Details on this are in Figure 7.

Fig. 6. Number of Directors in Each Company

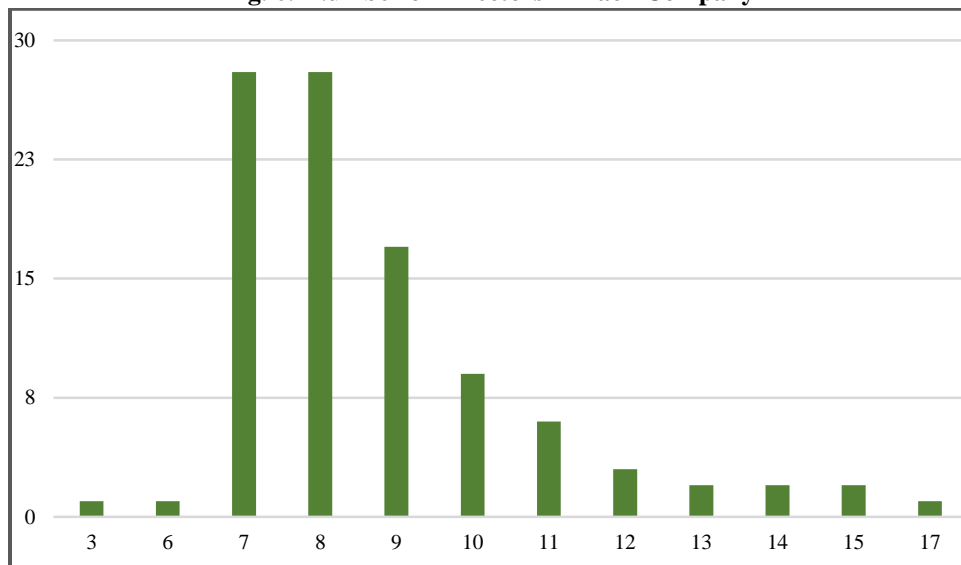
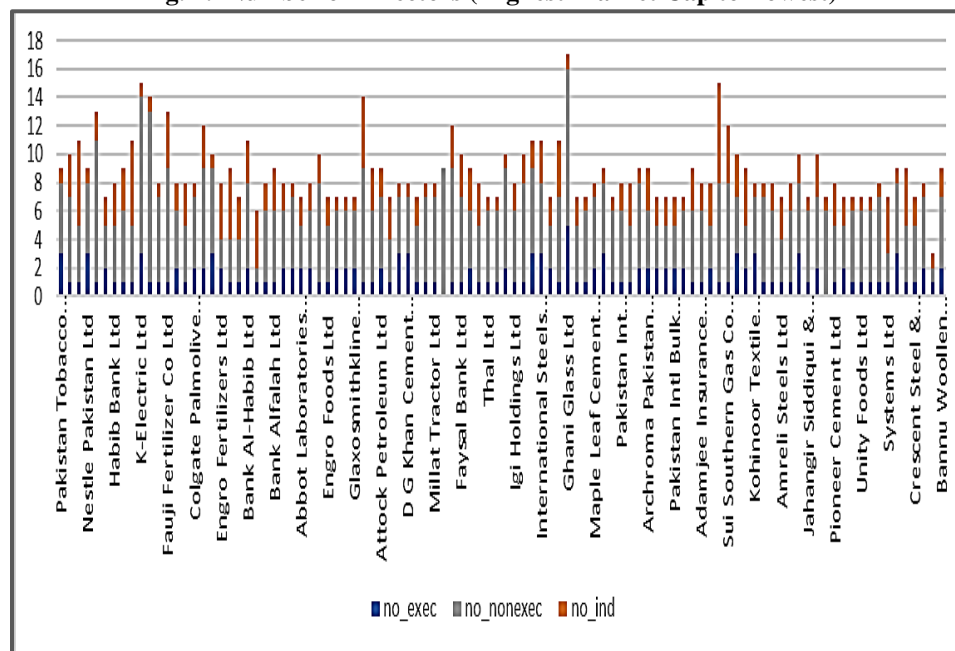


Fig. 7. Number of Directors (Highest Market Cap to Lowest)



Box 3: The Law on Board Composition

- **Multiple Memberships:** No person shall be elected or nominated or hold office as a director of a listed company including as an alternate director of more than five listed companies simultaneously:
 - Provided that while calculating this limit, the directorship in the listed subsidiaries of a listed holding company shall be excluded.
 - Provided further that the said limit on directorship shall be effective when the board shall be reconstituted not later than expiry of its current term or one year of the effective date of these Regulations, whichever is earlier.
- **Diversity:** The board of directors shall comprise of members having the core competencies, diversity, requisite skills, knowledge, experience and fulfils any other criteria relevant in the context of the company's operations.
- **Representation of Minority Shareholders:**—The minority members as a class shall be facilitated to contest election of directors by proxy solicitation
- **Independent Director:**—The independent directors of each listed company shall not be less than two members or one third of the total members of the board, whichever is higher:
- **Female Director:**—The board of directors shall have at least one female director when it is next reconstituted not later than expiry of its current term or within the next one years from the effective date of these Regulations, whichever is later.
- **Executive Director:**—The executive directors, including the chief executive officer, shall not be more than one third of its board of directors.
- **Chairman of Board:**—The Chairman and the chief executive officer of a company, by whatever name called, shall not be the same person. The chairman shall be elected subject to such terms and conditions and responsibilities as provided under Section 192 of the Act and these Regulations.

From SECP Law

[https://www.psx.com.pk/psx/themes/psx/documents/legal-framework/SECP/regulations/listed-companies-\(ccg\)-regu-2017/ListdCmpCodeOfCorpGovern017.pdf](https://www.psx.com.pk/psx/themes/psx/documents/legal-framework/SECP/regulations/listed-companies-(ccg)-regu-2017/ListdCmpCodeOfCorpGovern017.pdf)

4.1. Independent Directors

The SECP and corporate governance code requires independent directors. An independent director on the board of directors does not have a material or pecuniary relationship with company or related persons, except to draw a sitting fee. The objective of staffing boards with independent directors is to protect the interests of all investors, especially those belonging to minority interests.⁷

As shown in the Box 4, there is little clarity on what 'independent' means. In many companies, independent directors are long standing employees of owners and their 'independence' in decisions by the board may be questionable.⁸

⁷ Pakistan Telecommunication Co. does not have any independent directors on its board.

⁸ In some cases, the particulars of a director are not fully disclosed in annual reports. Not all companies have a complete and well-maintained website.

Box 4: Some Facts on Boards

- 82 percent serve on a single board,
- 12 percent serve on two boards,
- 4 percent serve on three boards,
- 1.5 percent serve on four boards, and 1 percent serve on 6 boards.
- 220 posts exist for independent directors, averaging at over two independent directors per firm.
 - 77 percent of these serve on a single board,
 - 14 percent serve on two boards,
 - 6 percent serve on three boards,
 - 1.5 percent serve on four boards, and
 - 1.5 percent serve on five boards.
- Of the total 880 directorships, just 158 are executive in nature.
- Only 27 out of 100 companies are compliant with the Code of Corporate Governance, while 73 companies are non-compliant in terms of diversity and independent directors.

4.2. The Opportunity to be a Director: A Small Club

Profiles of 573 non-executive and independent directors were collected to better understand the qualifications of those who serve on vital voting positions. Data was collated to create 10 categories reflecting the diverse backgrounds while accounting for the fact that individual board members may overlap categories. Educational qualifications are disregarded. Instead, greater emphasis is placed on professional experience (see Table 2).

Table 2

Professional Experience of Directors

Corporate Sector	Includes those with corporate experience. This excludes all individuals whose first post in the corporate sector is that of a board member
Government	<ul style="list-style-type: none"> • Anyone who has/is working in a government/semi-government organisation, or any state-owned subsidiaries excluding public/ state-owned universities (These fall under services) • Those listed as part of the bureaucracy • Any person serving as advisor to government organisations • Official representatives of the government
Bureaucrats	Bureaucrats, former or current
Army	Members of the Pakistan Army, former or current
Services	Anyone who works as an advisor/consultant for non-government organisations. Includes legal advisory, corporate advisory etc.
Industrialist	Anyone who has founded a business in the manufacturing sector
Businessman	Anyone who has founded a business in the primary or tertiary (services) sector
Family	Anyone who serves on the board of a company exclusively due to family ties. Excludes family members who have not founded the business and have demonstrated experience
PSX	Includes people who have worked/ are working or have any affiliation with Pakistan Stock Exchange (or the now demutualized Karachi Stock Exchange)
NIT and SECP	Includes people who have worked/ are working, or have any affiliation with National Investment Trust Limited and/or Securities and Exchange Commission of Pakistan

Number of individuals in each category are:

Table 3

Number of Directors in Each Category

Corporate	297	Industrialist	35
Government	148	Business	73
Bureaucrat	32	Family	154
Army	22	PSX	28
Services	70	NIT or SECP	25

With this analysis, some points must be emphasised.

- The boards comprise of similar people—corporate, business founders and family, retired and current member of the civil service, and the army. In other words, it parallels a membership of an elite club in Pakistan.
- What is surprising is that there is very little representation from civil society, i.e. professionals and academia of Pakistan.
- Women make up only about 10 percent of the board members in Pakistan.
- It is notable that a significant number of non-executive directors have served as government employees in the past, whether as bureaucrats, the military, or in regulatory bodies such as the SECP.
- The other notable concentration belongs to those identifiable as family members.

5. NETWORK ANALYSIS OF BOARD MEMBERS

Assuming uninhibited communication between both family members and board members of the same company, a network of individuals may be drawn showing flow of information between nodes. This results in components that at maximum have 612 nodes, which implies that 80 percent of the time, some path exists for flow of information between two nodes for all companies that are part of the KSE-100 index.

Network analysis is made by drawing connections between individuals.

- (1) All directors serving on the same board have connections drawn between them
- (2) Directors and family: board members belonging to the same family have connections drawn between them.

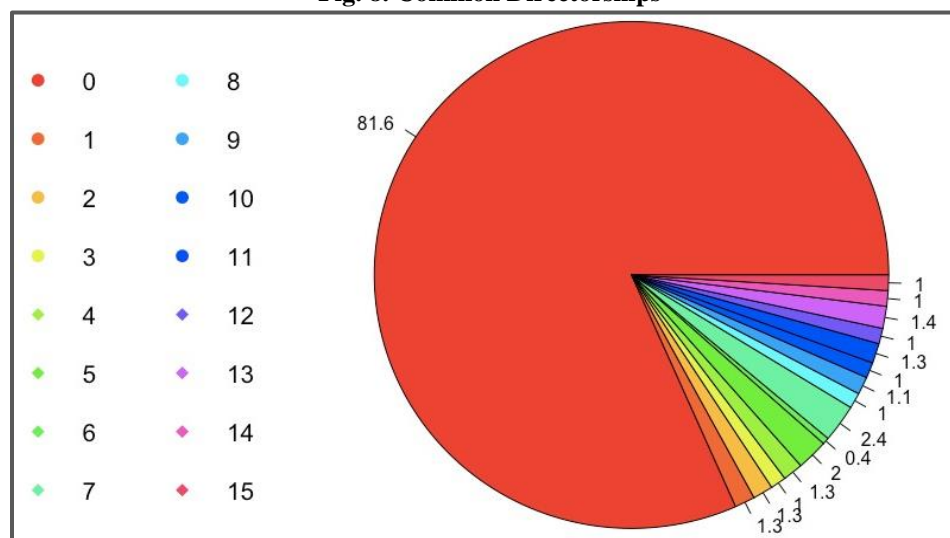
It is important to remember that the following network analysis is based solely on one or two dimensions of these individuals i.e. their membership on boards and their affiliations with different families. Other connections such as social interaction, distant relations etc. are not accounted for, which may alter results.

5.1. A Small Club

When we look at the network of directors, there is a high degree of connectivity, which should be of concern. Boards of directors for KSE-100 companies are all connected in small clusters, where a few members act as go-betweens through memberships on multiple boards, or as part of identifiable family groups.

The network consists of 16 components, where a component refers to the subset of nodes that can be reached through continuous edges, i.e. without any breaks. Recall that components are distinct subgroups. The pie chart below shows the percentage of nodes in each component. It is apparent that a giant component connects 82 percent of the individuals in the network (this number reduces when families are included), with very few smaller components. This indicates that most companies in the KSE-100 are connected to each other through directorships. Only a very few (at most 15) do not share common directorships with other companies in the index (see Fig. 8).

Fig. 8. Common Directorships



6. WHO MATTERS IN PAKISTANI CORPORATIONS?

We have seen that the financial and industrial wealth in the country is concentrated in the hands of a small group. Let us look a little more closely at the network of directors. How does information flow through this small club? Who plays a pivotal role and why? Surely, these connections and flow of information can and will have consequences for business decisions and economic outcomes. While we may not be able to say anything about the final economic outcomes of the small club and its network effects, we can use network science to find out how close knit the club is and who the central players are.

Box 5 shows how the network is connected through the Director positions when evaluated through centrality measures. For example, the study attempts to understand

how ‘central’ certain directors are, given their background. Centrality measures are key measures of influence since these dictate network formation: highly influential and well-connected directors are more likely to control the hiring process, exercise political power derived from positions previously held as elected representatives, bureaucrats, or military personnel, or offer an understanding of functioning of key accountability institutions such as the SECP, amongst many others. These create informal institutions in free markets, and since corporations are divorced from democratic practices, it becomes difficult for people, or even public institutions, to prevent such practices. Even if those practices are highlighted, their existence may be denied.

Box 5: Network Measures

Average Degree of Network indicates the average number of connections per node in the network; this is calculated by summation of number of connections in the network, divided by the number of nodes. The network of directors at KSE-100 has an average degree of 10.514. This may be interpreted as following: on average, a director at one of the firms listed on the KSE-100 is connected to 10.5 people.

Average Clustering Coefficient is a measure of the degree to which nodes in the network tend to cluster. This is calculated using the local clustering coefficient, which quantifies the closeness between node’s neighbours, i.e., close enough to be considered a clique, or a complete network. This is then used to calculate the average across the entire network. We find the value of 0.891 for KSE-100 network--a high degree of clustering. The indication is that directors with shared backgrounds, experiences, and industries are more likely to have a relationship with each other than those who do not.

Average Path Length is the average of the shortest path between each pair of nodes in the network. Small Average Path Length of 4.875 indicates that it is both negotiable and efficient: smaller average path lengths disseminate information much faster than those with higher lengths do. Thus, in the club of KSE-100 Directors, firm-related information is transmitted at high rates.

There are many centrality measures based on different concepts of influence in the network. Here we use *betweenness centrality* as a measure of frequency with which a node is in the middle of the shortest path between a separate pair of connected nodes, essentially acting as a conduit between the two. It is calculated by examining all possible pairs of actors in the network, determining the shortest path between them, and counting the frequency with which an actor is found in the middle. In other words, they can act as facilitators, or in some cases gatekeepers, between two actors, so that communication between them can pass through the central individual. A node with higher *betweenness centrality* would have more control over the network, because more information will pass through that node.

Figure 8 shows the network map with the area of the node circle showing its measure of *betweenness centrality*. The larger circles are therefore the more central figures in the KSE-100, being more central to information flows and connections. The figure again shows how well the boards are connected with one large mass in the middle with a few sparsely populated satellites on the periphery. It seems that the organizational separation is very thin.

Table 4 looks a little more deeply at the 20 directors with the highest *betweenness centrality* to see what we can learn from their characteristics. The highlights are as follows:

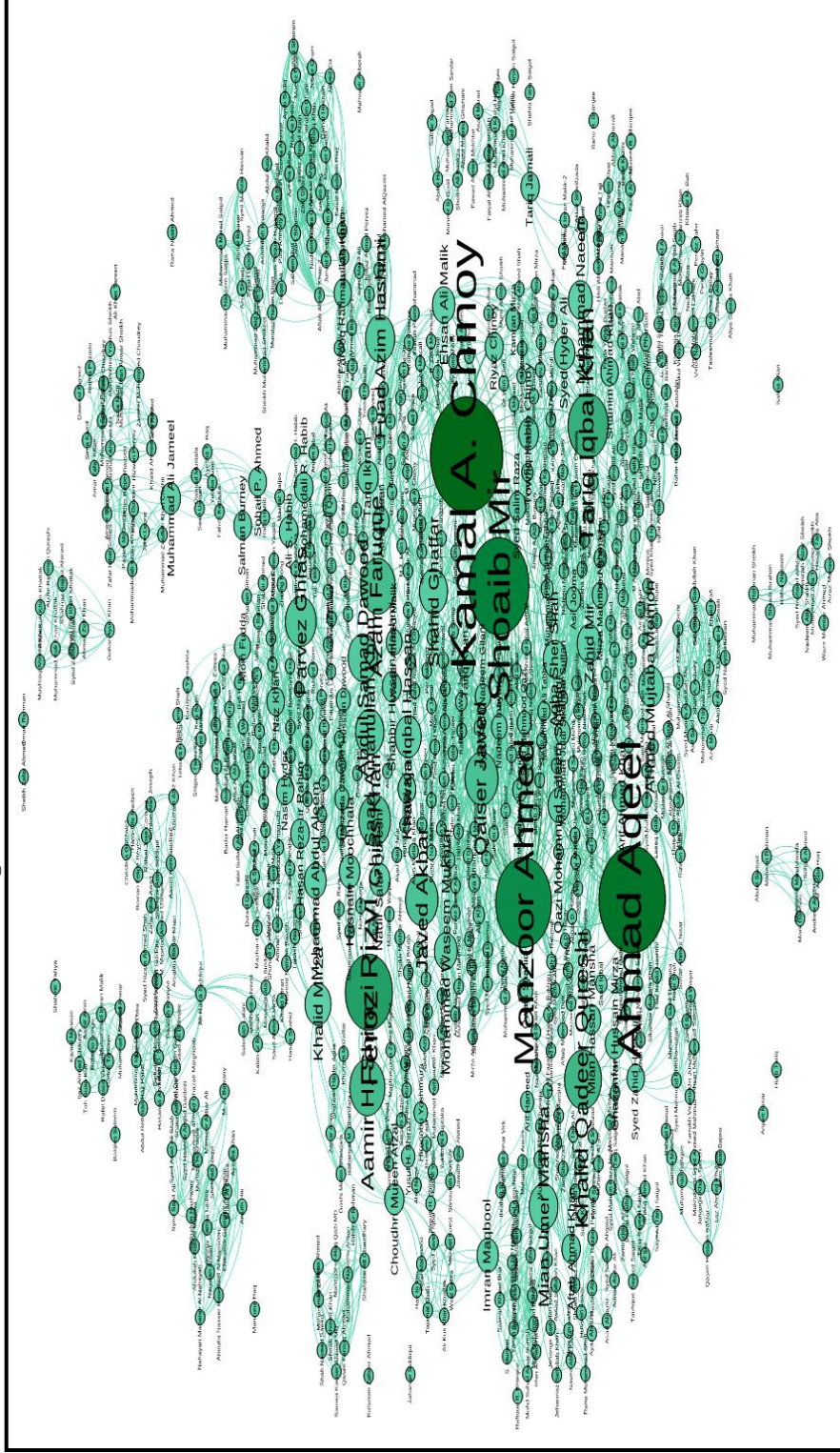
- Not surprisingly, there are no influential women
- Interestingly enough although the most visible names (Mian Mansha, Dawood, Hashwani) are not on the list, their children are.
- The list seems to have many accountants, former bankers, NIT employees, and career professionals who have worked at the concerned companies or groups. There does not seem to be much professional diversity in the group.
- It seems that most influential directors come from the large metropolitan centres. They are mostly from Karachi, with Lahore being second. Islamabad has possibly one or two directors.
- It seems that many directors are reappointed in other companies as many of them show that they have been on as many as 17 or 18 boards. The smallness of the club is once again reinforced.

Table 4

Characteristics of Directors with Highest Betweenness Centrality

Name	Profession	State	Resident	No of Companies Served Serving
Kamal A. Chinoy	Former banker, International Group	Owner	Karachi	17
Ahmad Aqeel	Businessman LCCI, PICG	Owner	Lahore	8
Shoaib Mir	civil servant, PICG	government	Karachi	5
Manzoor Ahmed	NIT, PICG	business professional	Karachi	11
Feroz Rizvi	Former ICI	business professional	Karachi	5
Tariq Iqbal Khan	former SECP, ICAP	Accountant	Karachi	17
Khalid Qadeer Qureshi	ICAP Nishat Group	Accountant/business professional	Lahore	5
Aamir H. Shirazi	Honda	Owner	Karachi	17
Azam Faruque	Cherat Cement	Owner		11
Qaiser Javed	professional in Fauji Enterprises/ accountant	accountant/business professional		17
Javed Akbar	ENGRO professional	professional	Karachi	9
Ghias Khan	ENGRO professional, PICG	professional	Karachi	8
Parvez Ghias	accountant PICG Dawood Group	professional	Karachi	8
Abdul Samad Dawood	Dawood	owner	Karachi	13
Fuad Azim Hashimi	accountant International Group	accountant	Karachi	4
Mian Umer Mansha	Mansha/MCB Group	Owner	Lahore	13
Saad Amanullah Khan	Professional PICG	professional	Karachi	11
Shahid Ghaffar	NIT, PICG, Banking, PSX	professional	Karachi	11
Khalid Mirza	Professional SECP. CCA	professional	Lahore	8

Fig. 9. The Network of Directors



7. CONCLUSION

While most commentators suggest that the availability of finance to corporates is a major requirement of development policy, there is little analysis of financial markets or corporate governance in Pakistan. This paper uses the available information from the SECP to analyse the stock market and develop a snapshot of corporate governance. We have several interesting findings that need careful review for further policy formulation to develop and improve our financial markets.

- (1) It is well known that the stock market in Pakistan remains small with few IPOs and thinly traded stocks. This paper confirms these findings. It goes further by looking at connections between firms through cross holdings to find that 31 families appear in the KSE-100. It appears that while Mahbub Ul Haq talked of 22 families dominating Pakistan in 1967, in 2018, some 50 years later, the wealth in the stock market may be largely owned or controlled by 31 families.
- (2) The large representation of the government and foreign investors in our stock market remains an interesting phenomenon.
 - (a) Several government entities form a large part of the KSE-100 at about 12 percent. This is despite the fact that the government owned companies are government managed with a very small share of their equity on the market.
 - (b) The multinational sector and foreign holding companies constitute about 28 percent. Most of the companies are brand names like Nestle or Unilever that do not require local financing but trade only because local rules require them to.
 - (c) Local companies, even after 60 years of financial market development, remain a small part of the market at about 30 percent.
- (3) In terms of corporate governance, we note:
 - (a) Board members are predominantly male.
 - (b) Board members are a well-connected group with very easy information flows and connections.
 - (c) They are drawn from a fairly narrow group of bankers, accountants, and former corporate professionals, and are mainly from Karachi.
 - (d) Other Pakistani professionals don't get much consideration for board memberships.
 - (e) NIT continues to own 7 percent of the market with very little oversight. Association with NIT gives significant influence in the corporate world.

Many questions remain for other researchers to examine. The data used in this paper is in the public domain and accessible to anyone. It is important to use it to develop insights on corporate governance. For example, do the close networking and connections highlighted in this paper have any implications for competition in the market? How are these appointments made and why is the pool from which board members are drawn so narrow?

Several curiosities need further examination. Why is the local private sector so small? People remain leery of investing as is evident by our low investment to GDP ratio. Listing on the stock market is not preferred so while business owners complain of high interest rates, they seem less inclined to raise money through the stock market. Is it because of the huge transactional costs relating to both investing and listing that domestic IPOs and equity financing remains low?

Despite SECP guidelines and the Institute of Corporate Governance exhortations, the boards lack women, truly independent directors, and diversity in the boardroom. A small, well-connected male club is in charge of corporate governance and the stock market. This issue needs further examination if Pakistan is to grow to meet its challenges.

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