

BUSINESS GROUPS' FINANCIAL PERFORMANCE: EVIDENCE FROM PAKISTAN

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ABSTRACT

We examine comparative financial performance of business groups in Pakistan employing samples of firms listed on the Karachi Stock Exchange. Our descriptive results show that group firms are larger in size and have higher operating profits. Group firms also exhibit lower sales growth variability over a five year period than non-business group firms. Our statistical analysis reveals that business group firms have significantly higher liquidity and significantly lower financial leverage than the non-business group firms. More importantly, business group firms are more profitable (higher ROA) than non-group firms. Our results based on superior financial performance of business groups indicate that business groups in Pakistan are efficient economic arrangements that substitute for missing or inefficient outside institutions and markets, hence supporting the market failure argument.

JEL: G00, G32

KEYWORDS: Business Group, Financial Performance, Emerging Economy, Pakistan.

INTRODUCTION

The primary purpose of our study is to examine business groups' comparative financial performance in an emerging economy. Our main argument of this paper is that business groups are efficient institutional arrangements in an emerging economy that successfully substitute for the failed markets such as capital, labor, and product and dysfunctional institutions such as legal, enforcement and monitoring.

Empirical evidence on the impact of group affiliation on firm performance is positive to mixed for emerging and transition economies (Chang and Choi, 1988; Keister 1998; Perotti and Gelfer, 2001; Khanna and Rivkin, 2001; Ma, Yao, and Xi, 2006). For example, Perotti and Gelfer (2001) use Tobin's q as a measure of performance to compare group firms with non-group firms in Russia and find higher Tobin's q values for the group firms. Similarly, Keister (1998) examines the performance of business groups that were formed in China, in the 1980s, with the support and encouragement of the government. He finds that the productivity and financial performance of these groups improved significantly. He also finds that among groups, the ones with more centralized organizational structure did better than the others. Evidence on group performance from advanced economies is rather mixed. Various studies found that performance measures of group-affiliated firms are either significantly lower than or are not significantly different from those of the unaffiliated firms (Caves and Uekusa, 1976; Gunduz and Tatoglu, 2003; Cable and Yasuki, 1985; Weinstein and Yafeh, 1995, 1998).

Khanna and Rivkin (2001) define a business group as, "...a set of firms which, though legally independent, are bound together by a constellation of formal and informal ties and are accustomed to taking coordinated action." Encarnation (1989) describes the relationship among firms in Indian 'business houses,' as "[I]n each of these houses, strong social ties of family, caste, religion, language, ethnicity and region reinforced financial and organizational linkages among affiliated enterprises." The business groups in Pakistan (previously known as 'twenty-two families,' hereafter, named 'The families') are

informal combinations of legally independent business entities run by families. The family patriarch is the dominant shareholder and manager, whereas the immediate and distant family-members help operate various firms within the business group. It is common for these family members to belong to the same religious sects or communities. Some examples of major communities are the Chiniotis, Memons, Ismaeelis/Aga Khanis – families, with business origins (primarily trading, some in manufacturing) in parts of India, later migrated to Pakistan. A view of the typical family tree: grandfather-sons –grandsons; usually, all are involved in family business. See more on this in White (1974) and Papanek (1972). Though a firm belonging to one group is not a member of another group, it is quite common for family members of a group to hold director seats in firms affiliated with other groups (known as interlocking directorates). Most business families operate in multiple industries, and similar to groups in some other countries, have no informal or official designation and are not state regulated.

There is only one known study that examines the financial performance of 43 business families (65 affiliated firms) and 33 nonmember firms involved in manufacturing in Pakistan during 1964-1968 period (White, 1974). White's empirical analysis found no significant relationship between the average profit rates (over 1964-1968 period) of family-affiliated firms and non-family controlled firms and the firm-specific variables such as size of the firm, industry membership, or family control. The results of his study also show no statistically significant difference between the financial performance (measured as the 'after-tax net profits' regressed on 'growth of total assets') of family and non-family controlled firms during the 1965-1968 periods. Though, White's additional tests did show a strong positive link between the state sanctioning of the licenses (licenses to enter an industry, capital goods import licenses, and foreign exchange licenses) and business families leading him to conclude that the emergence and existence of business families in Pakistan can be unambiguously explained by political economy hypothesis.

We use samples of business group and non-business group firms listed on the Karachi Stock Exchange of Pakistan in two distinct years (1998 and 2002). Our descriptive analysis based on median values (that control for extreme values) shows that group firms are larger in size and have higher operating profits. Group firms also exhibit lower sales growth variability over a five year period than non-business group firms. In addition, we find that business group firms' liquidity is significantly higher than that of non-business group firms and have significantly lower financial leverage (risk). Our statistical analysis results based on ROA (an accounting performance measure) show that group firms are more profitable than non-group firms for year 1998, thereby providing evidence that, unlike in the developed world, group firms in an emerging economy are efficient economic arrangements. Our Tobin's q (a market valuation measure) statistical results show that the mean values are significantly lower for group firms when compared to non-group firms. This divergence between ROA and Tobin's q suggests that market participants may perceive firms affiliated with business groups to have lower transparency, thereby discounting the value of group firms even though group firms are more profitable than non-group firms. On same lines, Claessens et al., (2000) examine a sample of East Asian corporations and find similar negative association between control rights of family businesses and market valuation (measured as Tobin's q). That is, higher the family control rights lower the Tobin's q (see more on this in Khanna and Rivkin, 2000).

More importantly, our ROA results support the market failures/institutional void argument and suggest that the business groups in Pakistan are efficient economic arrangements that provide viable substitutes for missing or inefficient institutions and markets. Our sector-level results generally are not different (but weaker) from those of the full samples.

The rest of the paper is organized as follows: Section 2 presents a review of literature and background followed by a set of research questions. Section 3 provides details about data selection and research methodology. Section 4 discusses the results and findings, and Section 5 concludes the paper with a summary of findings.

LITERATURE REVIEW AND BACKGROUND

The evolution of business groups and their performance has been a subject of both analytical and empirical research in accounting, finance and management literature. Most common is the view that business groups performance depends on the institutional contexts of the economy they exist in. Based on the theories we discuss below, it appears that business groups should perform better than independent firms in countries with weak financial institutions and inefficient markets because they can internalize functions of those institutions and markets. Leff (1976) was one of the earlier studies that characterized business groups as performing the “principal functions of a capital market” in less developed countries and suggested that “because of the Groups’ quasi-rents and monopoly power in product markets, their returns are likely to be above the economy-wide average”. Khanna and Palepu (1999) make a case for business groups to proactively substitute for weaknesses in market institutions and infrastructure in emerging markets. There is also evidence that group members provide capital to failing or financially weaker members of the group (e.g. Morck and Nakamura (1999) and Gopalan et al. (2007)). Cestone and Fumagalli (2005) propose that groups use the flexibility of their internal markets to respond efficiently to threats from product market competitors or potential entrants. Internalization of markets has, however, been criticized for creating agency problems like rent seeking by the managers, expropriation of rights of minority shareholders or misallocation of investment opportunities (e.g. Scharfstein and Stein (2000), Johnson et al. (2000) and Rajan et al. (2000)).

The existing theories to understanding the factors that provide meaningful insight into the activities of business groups in the emerging economies are: market failure/institutional void, social structure, and resource-based/political structure view (Guillén, 2000; Hoskisson, et al., 2000).

Market Failure/Institutional Void Argument

According to Williamson (1975, 1985), markets and firms exist to execute a set of transactions. These transactions will take place depending upon which mechanism (that is, market or within firm) can execute it more efficiently. The efficiency or lack thereof (lower or higher transaction costs) is determined by the institutional factors that surround the transactions. This idea is also elaborated in Klien et al. (1978). In advanced economies these institutional factors are highly developed whereas, in developing economies such as Pakistan, they are primitive and malfunctioning.

Leff (1978) focuses on the institutional factors in the developing countries and proposes that the existence of a business group, as an institutional mechanism, is a response to market failure. Leff identifies three market imperfections to explain group pattern of industrial organization in developing countries: 1) appropriation of quasi-rents due to access to scarce and imperfectly marketed inputs such as information and capital, 2) expansion into diversified product lines because of the absence of markets for risk and uncertainty, and 3) a pattern of vertical integration helping overcome problems associated with various forms of oligopoly and monopoly.

Transaction cost theory is an integral part of the market failure argument. Economists identify two primary sources of transaction costs: information asymmetry and contracting problems. Buyers and sellers will have deficient information about the true underlying value of the good or service. Very high prices could be offered for very low quality goods or services and vice versa. If the market does not possess institutional mechanisms to reduce the information asymmetry then the transaction costs will stay very high (Akerloff, 1970). Firms in emerging economies, such as in Pakistan, have deficient corporate governance mechanisms that lead to very high agency costs.

Social Structure Approach

The social structure approach focuses on the economic organization as a function of the social order and argues that the emergence and continued existence of the business groups can be linked to axes of social solidarity such as ethnicity, kinship, region political party, and religion (Granovetter, 1994). Leff (1978) suggests that business groups are mostly 'linked by relations of interpersonal trust, on the basis of a similar personal, ethnic or communal background'. Kester (1992) also describes the 'implicit contracts' which stem from the long term contacts of business community with industrial groups. We find ample evidence (explained later) of this in the context of Pakistan.

Political Economy Approach

In the case of emerging economies, researchers focus on the relationship between political power structures and emergence (and continued existence) of business groups (Encarnation, 1989). Groups are viewed as counterproductive rent seekers that destroy rather than add value (Ghemawat & Khanna, 1998). This view highlights the disproportionate diversion of scarce resources toward business groups in lieu of their cozy relationship with the political establishment, mostly at the cost of the larger population. In the context of Pakistan, White (1974) argues that the acquisition and maintenance of economic power requires existence of significant scale economies barriers and scarce resources barriers. White suggests that scarce resource barriers created by the government of Pakistan in the form of foreign exchange licenses, investment licenses, and licenses to import capital goods, raw material, spare parts, and consumer goods from abroad, helped business families and groups take root and consolidate during the 1950s and later gained dominance in the 1960s.

Recent research incorporates some of the above approaches and provides mixed to supporting evidence. For example, Khanna and Rivkin (2001) examine the impact of group affiliation on financial performance (measured as operating returns/assets) of firms in 14 emerging economies in Asia, South Africa, and Latin America (sample does not include Pakistan). After controlling for firm and industry fixed effects, they find that the mean of the estimated group effects is positive (and statistically significant) in four countries, and negative (and statistically significant) in one country only. More importantly, Khanna and Rivkin find that group membership explains a higher variation in profitability than the one explained by industry effects in 13 out of 14 countries sample. Chang and Choi (1988) focused on the group size effect and performance and find that the firms affiliated with the largest four Korean chaebols perform significantly better than the nonaffiliated firms and firms affiliated with the small chaebols. Marisetty and Subrahmanyam (2010) find support for 'tunneling' hypothesis for explaining greater IPO underpricing for firms affiliated with business groups than non-affiliated firms in India.

Khanna and Rivkin (2000) argue that the within country as against the cross-country examination of business group phenomenon is more reliable since the definition of a group, the consensus about the definition, and the degree of tightness of control varies significantly across countries. Thus, this provides us the motivation to examine the question of group performance on an individual country level such as Pakistan.

Business Groups in Pakistan

It was during the 1960's military regime of Ayub Khan that the then Chief Economist of the Planning Commission of Pakistan, Dr. Mahboob ul Haq, on April 21, 1968, issued a list of 22 wealthiest families of Pakistan. Dr Haq claimed that these families controlled 66 percent of the industrial complexes and owned 87 percent of the share in the banking and insurance industries of Pakistan. His list of twenty-two families (business groups) were: Dawood, Saigols, Adamjees, Colony, Fancy, Valika, Jalil, Bawany, Crescent, Wazir Ali, Gandhara, Ispahani, Habib, Khyber, Nishat, Beco, Gul Ahmed, Arag, Hafiz, Karim,

Milwala, and Dada. These families invested their fortunes mostly in those businesses in which they could apply their greatest expertise. Habibs laid the foundations of Pakistan's first and largest bank, Habib Bank Limited, and Adamjee Group formed the Muslim Commercial Bank. During the Ayub Khan era, these twenty-two families consolidated their holdings and flourished until their unraveling during the nationalization wave of the early 1970's instituted by then elected Prime Minister, Z. A. Bhutto.

During the mid-1950s, the military government of Pakistan, headed by Ayub Khan, actively encouraged domestic production of manufactured goods (primarily textiles) instead of agriculture (cotton, wheat, rice and jute) as the future economic growth strategy for an agrarian economy. Toward this end, Pakistani government provided extensive incentives for the business families in the form of tariffs, foreign exchange licenses and voucher systems, quotas, and a highly advantageous tax regime. This in turn led to the development of a class of industrialists, later known notoriously as the *twenty-two families*. Pakistan, during that period (late 1960s) was declared as one of the success stories among the less developed countries (White, 1974). According to Omar (2003),

“The Ayub Khan era was the 22 families' heyday. They flourished mightily in that era, setting up one industry after another and expanding into sector after sector [;] until it seemed that they virtually controlled the economy. Banking, insurance, textiles, consumer goods - everything was grist for their mill.”

After the war between Pakistan and India in 1971, the East wing of Pakistan declared itself an independent nation, Bangladesh. In 1972, in the West wing of Pakistan (now called Pakistan), the popularly elected government of Z.A. Bhutto replaced the military regime of Yaha Khan. The first order of business of the Bhutto government was to nationalize most of the so-called *twenty-two families* holdings (that included highly efficient and well-managed banks and insurance companies) leaving just the textiles related firms in the families' hands. He nationalized as many as 31 key industries; 13 banks; 12 insurance companies; 10 shipping companies and two petroleum companies (Hussain, Dilawar, daily Dawn, December 9, 2007). The devastating impact on the fortunes of these families in Pakistan was immediate.

It was only in the late 1980s that the political government of Nawaz Sharif (himself a member of a large business family) started returning some of the nationalized units back to these families. During the 1990s, the business environment turned friendlier toward family businesses. Some new business families emerged and the existing families reconstituted themselves and started expanding and moving in to new areas like automobiles and cement. The military regime of General Pervaiz Mushraf continued the process of liberalization by privatizing state-owned enterprises such as banks and heavy-tool industries.

Based on the above discussion, we examine *two* broad research questions related to business groups' financial performance in Pakistan.

Research Question 1: Is there a difference in key financial characteristics of group and non-group firms in Pakistan?

Research Question 2: Is there a difference in *accounting-based* financial performance of group and non-group firms in Pakistan?

Specifically, we used the accounting performance measure, Return on Assets (ROA), to address the second question.

RESEARCH DESIGN AND METHODOLOGY

The initial sample was based on all firms listed on the Karachi Stock Exchange (KSE) for year 1998 and for year 2002 (selected as test years) and whose data were available on VISTA (Vital Information Services Total Analysis). We verified the data for correctness from firms’ annual reports on a sample basis. In the next phase of the sample selection process, we separated these firms into group and non-group sample firms. We used various sources and methods to both identify known business groups and to confirm a firm’s affiliation with a group. The methods we employed were: accessing group web sites, calling the firms themselves, referring to the book 'Who Owns Pakistan?' by Shahid-ur-Rehman (1998), and relying on the common knowledge in the market place and among business circles. We were able to identify 62 groups for our study.

Table 1: Sample Selection

	Group Firms		Non-Group Firm	
	Years		Years	
	1998	2002	1998	2002
Initial Sample-Listed Firms	274	259	278	251
Non-Operating	(6)	(9)	(12)	(17)
Missing Financial Data Or Negative Values	(23)	(33)	(68)	(74)
Reporting period not Equal to 12 months	(0)	(0)	(2)	(0)
Final Sample	245	217	196	160

This table shows sample selection process for the study. Group firms are those which belong to a business group and Non-Group Firms are those which do not belong to any business group.

As shown in Table 1, we excluded firms from our initial samples that were in banking, finance, real estate and insurance. Next, we eliminated firms with reporting period of less than or greater than 12 month or firms that were not operational during a period or firms controlled by multi-national companies or by the government of Pakistan. We also deleted firms with negative values or missing financial data (zero values) in VISTA. The group firms’ samples (and years) were: 245 (Year 1998), 217 (Year 2002), respectively, whereas, the final samples of non-group firms (and years) were: 196 (Year 1998) and 160 (Year 2002), respectively.

In order to indulge in a more meaningful exercise, we chose two distinct test years (1998 and 2002) as the basis of our examination. We selected year 2002 because most of the significant corporate governance developments in Pakistan took place after the year 1998. The Securities and Exchange Commission of Pakistan (SECP) was formed in 1999 as a part of the capital market regulation reforms to monitor the activities of corporate and capital markets. The SECP introduced a set of proposals in the form of a Code of Corporate Governance, whereby listed companies would be managed in compliance with international best practices. The final draft of the Code was issued by SECP on March 28, 2002 to be effective for year-end 2002. Thus, annual financial disclosures of year 2002 are expected to capture changes in corporate governance mechanisms since 1998.

Table 2 we provides a list of different financial measures (accounting- and market-based measures) that will be used to examine research questions one and two. Table 2 provides the definition of the accounting measure of firm’s financial performance, such as operating profit margin, return on equity (ROE), and return on assets (ROA), and the market measure of firm’s performance, such as dividend per

share, price to earnings ratio, and Tobin’s q. The metric ROA (accounting-based) was used to examine the second research question. The choice of these variables is consistent with measures employed in prior studies (Gunduz and Tatoglu, 2003).

Table 2: Financial Characteristics

Variables	Definition
Short-term Liquidity Ratio	
a. Current Ratio =	Current Assets/Current Liabilities
Financial Leverage	
b. Debt to Assets =	(ST Debt + LT Debt)/Assets
c. Debt Leverage=	Total Debt to Equity
Accounting Performance Measures	
d. Gross Profit Margin =	Gross Profit/Revenues
e. Operating Profit/Sales =	Operating Profits/Sales
f. Net Profit Margin =	Net Profit/Sales
g. ROA =	Operating Profits/Total Assets
h. ROE =	Net Income/Total Shareholders’ Equity
Stock Market Performance Measures	
i. Dividend to Net Profit =	Dividend/Net Profit
j. Dividend per Share =	<i>No change; value as entered by VISTA</i>
k. EPS =	Earnings / Shares Outstanding
l. Share Price/EPS =	Price Per Share/ Earnings Per Share
Stock Market Measure of Performance	
m. Tobin’s q =	(Shares O/S * Share Price + BV of Total Debt)/Assets

This table provides definitions of financial measures used to gauge performance of firms in the study.

Table 3 (Panels A, B, and C) provides two distinct years’ (1998 and 2002) descriptive statistics (mean, median, and standard deviation) of various financial measures (total assets, sales, total debt, operating profit, debt-to-assets, debt/equity, dividend per share, EPS, and revenue growth percentage) for business group and non-business group samples. Negative and zero values in the data for all firms were excluded while calculating these financial measures. As shown in Table 3, for years (1998 and 2002), the business group firms’ mean and median values of total assets and total sales (a proxy for size) are larger than those of the non-business group firms. Thus, on average, group firms are larger than non-group firms. Table 3 also reports leverage values for both samples. For both years, group firms appear less leveraged than non-group firms. In addition,

Table 3 results show that if we control for extreme values (that is, focus on median values rather than mean values) then group firms’ median values of operating profits are higher than those of the non-business group firms. That is, business group firms appear more profitable than non-business group firms. Notably, group firms’ median earnings per share in both periods (year 1998 and 2002) are higher than those of the non-group firms.

The Table 3, Panel C shows that year-over-year (1998-2002) revenue growth of group firms is more stable and is higher over a five-year cumulative basis when compared to revenue growth of non-group firms. This reflects better future prospects for group firms as compared to non-business group firms.

RESULTS

Table 4 shows comparative analysis of different selective financial measures of firms in business group and non-business group samples for the two selected test years (year 1998 and year 2002). Table 4 also reports for these two test years, mean rank values of financial measures for both these samples and the associated Mann-Whitney Z-test statistics of differences in mean ranks. As mentioned earlier, we believe that an examination of year 2002 would provide us some further insight about the changes that have occurred in the economic and the capital market environment of Pakistan since 1998.

Table 3: Selective Summary Statistics

Panel A: Business Group Firms vs. Non-Business Group Firms – Year 1998						
Variables	Business Group			Non-Business Group		
	Mean	Median	Std. Dev	Mean	Median	Std. Dev
Total Assets	994.70	564.49	1,420.41	899.48	291.55	4,608.20
Total Sales	928.65	585.88	1,246.56	723.38	244.15	2,390.27
Total Debt	400.95	234.98	615.46	405.24	142.68	2,485.04
Operating Profit	103.95	61.42	161.85	219.91	29.30	1,363.17
Debt-to-Assets	0.42	0.41	0.21	0.61	0.44	1.86
Debt/Equity	1.78	1.21	1.98	4.16	1.33	9.96
Dividend/Share	2.30	1.75	1.99	2.46	1.50	2.70
EPS	4.37	2.92	4.50	5.23	2.31	7.95

Panel B: Business Group Firms vs. Non-Business Group Firms – Year 2002						
Variables	Group Firms			Non-Group Firms		
	Mean	Median	Std. Dev	Mean	Median	Std. Dev
Total Assets	1,430.90	667.15	2,167.06	1,523.98	429.87	5,654.75
Total Sales	1,402.09	753.02	2,113.70	1,145.61	375.42	3,178.54
Total Debt	578.71	278.00	989.41	769.89	184.18	2,895.75
Operating Profit	167.51	74.20	251.97	243.73	39.94	1,002.62
Debt-to-Assets	0.47	0.43	0.37	0.54	0.47	0.40
Debt/Equity	2.27	1.15	4.49	4.58	1.51	10.32
Dividend/Share	2.76	1.50	3.14	3.76	2.00	5.34
EPS	5.72	3.96	6.63	5.61	1.94	9.79

Panel C: Average Revenue Growth Percentage Years 1998-2002					
	98-99	99-00	00-01	01-02	5-Yr.Growth
Group Firms	7.32	7.19	6.91	8.24	29.66
Non-Group Firms	-1.23	16.65	10.62	3.02	29.06

This table shows the mean, median, and standard-deviation of key financial characteristics for group and non-group firms for year 1998 and year 2002. All firms were listed on the Karachi stock exchange during the test periods. Panel A describes the data for the year 1998 and Panel B for the year 2002. The definitions of variables are provided in Table 2. Panel C reports the annual percentage growth in revenues based on the full-sample-period (1998-2002) for Group and Non-Group firms.

As shown in Table 4, for the year 1998, mean rank value 237.01 of current ratio of business group firms is higher than the year 1998 mean value of 200.99 for the non-group firms. This difference in mean rank is statistically significant at the .01 level with a Z-value of 2.949. Similarly, for the group firms, the year 2002 mean value 195.38 of current ratio is higher than the year 2002 mean value of 176.72 for the non-group firms. This difference in mean rank is significant at the .10 level with a Z-value of 1.649. This suggests that group firms, on average, have generally maintained their higher liquidity and short-term solvency when compared to the non-business group sample firms over these two distinct points in time. Thus, business group firms, in the short-term, appear to be less risky than non-business group firms.

Table 4 also reports the financial leverage of both samples. We measure this leverage (long-term solvency) using debt-to-asset and debt-to-equity ratios. As shown in Table 4, for the group firms, the year 2002 mean-value 158.78 of debt-to-asset ratio for the group firms is lower than the year 2002 mean value of 179.14 for the non-group firms. This difference in mean ranks of the two samples for financial leverage variable is marginally significant at the .10 level with a Z-value of 1.907. In other words, the non-business group firms have taken on more leverage when compared to the financial leverage of group firms over a passage of four years and appear to be riskier than the business group firms.

Table 4: Comparative Financial Analysis of Business Group versus Non-Business Group Firms

Financial Characteristics	Year 1998			Year 2002		
	Group n = 245 Mean Rank	Non-Group N = 196 Mean Rank	Z -Test Statistics	Group n = 217 Mean Rank	Non- Group n = 160 Mean Rank	Z-Test Statistics
Current ratio	237.01	200.99	-2.949***	195.38	176.72	-1.649*
Debt to Assets	206.69	214.22	-0.632	158.78	179.14	-1.907*
Debt Leverage	141.11	150.71	-0.959	112.72	129.71	-1.864*
Gross Profit Margin	186.25	188.04	-0.158	159.30	168.55	-0.870
Net Profit Margin	110.98	113.76	-0.311	130.72	122.29	-0.888
Oper.Profit/Sales	142.85	143.85	-0.039	146.55	132.24	-1.442
Return on Assets	155.71	133.77	-2.141**	146.26	140.47	-0.576
Return on Equity	107.94	99.29	-0.979	111.41	115.61	-0.469
Dividend/Net Profit	64.94	71.02	-0.861	87.34	91.2	-0.461
Dividend/ Share	69.72	64.79	-0.701	87.44	92.85	-0.638
EPS	116.75	106.71	-1.119	135.56	114.67	-2.205**
Share Price/EPS	109.77	118.42	-0.964	120.87	130.26	-1.004
Tobin's q	211.02	235.96	-2.036**	176.29	204.98	-2.531***

*This table shows mean ranks of financial indicators of firms affiliated with groups compared to those not affiliated to any group in Pakistan for the year 1998 and 2002. The differences between the two samples are evaluated using Mann-Whitney U - Wilcoxon Z, Test Statistic with ***, **, and * indicating significance at the 1, 5 and 10 percent levels, respectively. The definitions of the characteristics are: Current Ratio=Current Assets/Current Liabilities; Debt to Assets = (ST debt + LT Debt)/Assets ; Debt leverage = Total debt to Equity; Gross Profit Margin = Gross Profit/ Revenues; Operating Profit/Sales = Operating Profits/Sales; Net Profit Margin = Net Profit/Sales; ROA = Operating Profits/Total Assets; ROE = Net Income/ Total Shareholders' Equity; Dividend to Net Profit = Dividend/Net Profit; Dividend per Share = No change, value as entered by Vista; EPS = Earnings/ Shares Outstanding; Share Price/EPS = Price Per Share/ Earnings Per Share; Tobin's q = (Shares Outstanding * Share Price + BV of Total Debt)/ Assets*

As shown in Table 4, we do not find any difference in the mean rank values of the gross profit margin, operating profit margin, and net profit margin between group and non-group firms for both years 1998 and 2002. Therefore, based on these two test periods, the business group firms' profitability and the non-business group firms' profitability are not significantly different.

As shown in Table 4, dividend payout ratio and dividend per share variables are not significantly different for the two groups for both the test periods. In contrast, EPS for the business group is higher than the EPS for the non-business group firms for Year 2002 only. In other words, over these two test years, group firms have not spread their ownership and thus have not issued significantly more shares. This appears to be the case since we did not find any significant difference in the net profit margin (a proxy for the numerator of EPS ratio) for the two groups in either of the two test years.

Table 4 reports key ratio that specifically address research questions 2 and form the primary focus of our study. This ratio is ROA (an accounting-based performance measure) averaged for years 1998 and 2002 and reported for both the business group sample and non-business group samples. As shown in Table 4, for the year 2002, the mean rank ROA value of the business group firms is higher than the mean rank ROA value of the non-business group firms but this difference is not significant. On the other hand, the mean rank value of year 1998 ROA of the business group firms (155.71) is higher than the mean rank ROA value of the non-business group firms (133.77) and this difference is statistically significant at the .05 level with a Z-value of 2.141. This difference in ROA clearly shows that the business group firms have superior financial performance than the non-business group firms. In other words, business group firms utilize their asset more effectively than the non-business group firms do. This suggests that business

group as an organizational form carries in itself the opportunity for affiliated firms to maximize returns on their committed assets.

Table 4 also reports the mean rank value of Tobin's q of the business group firms (211.02) for year 1998 which is much lower than the mean rank value of Tobin's q of the non-business group firms (235.96) and this difference is significant at the .05 level with a Z-value of 2.036. Similar results are observed when we compare the two mean rank values of Tobin's q for the Year 2002 for the two samples. These findings suggest that though business group firms demonstrate superior financial performance (an interplay of effectiveness and efficiency) than non-business group firms, equity markets likely discount the value of these firms because market participants perceives these firms to have lower transparency than non-business group firms (see more on this in Khanna and Palepu, 2000 and in Claessens et al., 2000). More notably, a significantly higher ROA shows that business groups in Pakistan are efficient economic arrangements that substitute for missing or inefficient outside institutions and markets, in turn, supporting the market failure/institutional void argument.

Sector Classification & Analysis

The purpose of industry analysis is to determine if financial differences between the two samples found at the outset can be attributed to sector/industry effects. Toward that end, we examined three major sectors: Textiles, Consumer Goods, and Industrials. Our results were roughly similar (though not that strong) to the ones we observed for the full sample. In the interest of space we decided not to report these results but these findings can be made available by the authors upon request.

SUMMARY AND CONCLUSIONS

This study examines key financial differences between the business group and non-business group firms in Pakistan. Our main argument of this paper is that business groups are efficient institutional arrangements that successfully substitute failed markets and dysfunctional institution that dominate emerging economies. Towards that end, we raise two broad research questions. First, what are the key characteristics of business group firms that are different from non-business group firms? Second, are firms affiliated with business groups more profitable than unaffiliated firms? Specifically, we use the accounting-based performance measure, Return on Assets (ROA), to address the second question.

We address these two research questions using samples of group firms and non-group firms listed on the Karachi Stock Exchange (KSE) of Pakistan during 1998 through 2002 period (the test period) and whose data were available on VISTA. Next, we classify both samples to various industries using KSE industrial classification codes. In order to overcome small sample problem, we collapse related industries in to Textile, Consumer Goods, and Industrial sectors. We, then perform financial analysis based on these three sectors. The industry results are roughly similar to the ones for the full sample, and they do not change the conclusions of our study reached earlier for the full sample.

The Research Question 1 descriptive results show that group firms are larger in size than non-group firms both based on total assets and total sales. Our statistical analysis shows that group firms have higher liquidity and short-term debt paying ability, and marginally lower financial leverage (risk) than the non-group firms.

Our 1998 test-year results, based on ROA (an accounting-based measure - a test of research question 2), show that group firms are more profitable than non-group firms. In other word, business group firms utilize their assets more effectively than non-business group firms. This suggests that business group, as an organizational arrangement, creates opportunities for affiliated firms to extract higher returns from their committed assets. We also find business-groups' Tobin q (a market-based measure) to be lower than

the Tobin's q of non-business group firms. These results suggest that external shareholders perceived firms affiliated with business groups to have lower transparency than firms unaffiliated with business groups. Consequently, the market participants discount the value of group firms even though they are more profitable than non-group firms.

It is important to note that the results of our comparative financial performance (ROA) suggests that, like in most other emerging economies, the business groups in Pakistan substitute for missing or deficient outside markets (such as capital, product, and labor) and institutions (such as legal, monitoring and enforcement) and appear to play a prominent role in the economic growth of the country. We feel that our exploratory work substantially contributes to our understanding of comparative financial performance of business groups and shed an indirect light on the relationship between the existence, relevance, and role of business groups and the economic development in the emerging economy of Pakistan.

The results of our work should be interpreted in the light of some key limitations. This study is primarily exploratory in nature. We use data for only two years and further research is warranted for more fruitful analysis of how business groups in Pakistan have evolved over time and what are the antecedents of capital market perceptions of firms belonging to such groups. We also need to undertake a much deeper analysis of the institutional environment which promotes businesses of such form and possibly inhibits capital formation by individual entrepreneurs.

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