

**POLITICAL AND ORGANIZATIONAL ASPECTS OF EFFICIENCY  
CHANGES UNDER PRIVATIZATION IN PAKISTAN**



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## **DECLARATION**

This thesis is my own work, and contains no material which has been accepted for the award of any other degree in any other university or previously published or written by another person, except due reference has been made to the best of my knowledge and belief.

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## **DEDICATION**

I have carried out this research on the basis of my efforts, the cerebral guidance of my supervisor, and co-operation of my friends and family. This research has been dedicated to all those who helped me in the completion of my study.

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## **ABSTRACT**

*Privatization has been widely adopted as a major economic policy because of its fruitful as well as sound results. This study explores the efficiency changes in firms or units privatized in Pakistan. The interaction of political and organizational factors is seen to be contributing to these efficiency changes. The organizational and political factors are analyzed with respect to each firm using panel data for four years before privatization and sixteen years after privatization. The results reveal significant efficiency changes for banking, auto engineering and energy sector. However, for telecommunications and cement, the units under consideration are newly privatized and it has already been established that the effects of privatization are visible in the long run.*

## **CHAPTER 1**

### **INTRODUCTION**

The control of commanding heights of economy has always remained a crucial debate among the erudite of economics. In the light of this debate, several economic reforms have been introduced and privatization is one of them. This particular reform takes liberty from the argument proposed by Adam Smith that public sector is inherently inefficient. The term commanding heights of economy was coined by Vladimir Lenin, a Russian political theorist, socialist and politician. He referred to steel, heavy machinery, road and coal as the commanding heights of economy. In 1945, British Prime Minister Clement Attlee nationalized these core industries in a vision to immunize the nation from probable economic hard knocks in post-war Britain. During 1980s, Margret Thatcher started privatization in Britain which was a major economic reform when the core British industries were bleeding incessantly. Yet, privatization was adopted as an economic policy initially by Federal Republic of Germany when in 1957, the government sold majority stake of Volkswagen to private investors. Therefore, privatization is a process of “selling out” state owned enterprises to the private sector.

According to Thatcher, the nationalized core industries should have to be efficient when they had access to the treasury purse. She argued that the dependencies of state owned enterprises on subsidies must end and they should be relinquished to the disciplines of market. Hence the commanding heights of British economy like telephone, railway, coal, steel, gas, electricity, planes and water were for sale under Thatcher administration. The agenda of privatization under Thatcher administration was to raise revenue for the state, promote economic efficiency, moderate government interference in the economy, encourage extensive share ownership, furnish



opportunities to bring out competition, subject state owned enterprises to market discipline and to originate the national capital market.

Subsequently, privatization disseminated to other continents and countries as well. However the major contribution is rewarded to the fall of communist regime in Eastern Europe. Since then, and until today, privatization has been widely adopted as an economic policy.

Privatization is widely argued to be having a fruitful impact on economic growth. A plausible theoretical economic advantage that appears to be a reason behind many countries pursuing privatization process is the intention of reducing government size. It is argued that when it comes to the response towards market inducements, private sector is more incisive while public sector has un-economic goals at its disposal that hinder its response to such market inducements. That is why state owned units are high-cost and low-income enterprises. Privatization comes into play by diverting focus from political motives to economic goals so as to create a market economy that is more responsive to potential incentives. This volition of reducing government size is also healthy for a country's fiscal condition. The reduced government size means a reduced government expenditure that may be helpful in fulfilling past commitments and liabilities. Furthermore, privatization conceives a change of ownership which makes quite a large population the owners of newly privatized units if its shares are sold to private investors. Thus, private investors are more likely to be motivated as they acquire their compensation directly.

Privatization also implicates the transfer of decision-making authority or the management rights from public to private sector. It is argued that after privatization when management rights are transferred, the transaction cost of government intervention is affected. As the state owned firms enjoy "soft budget constraint" under which subsidies to loss making entities is common. However when privatized, the same unit has to submit itself to the market discipline where it

faces “hard budget constraints” and subsidies are not common. Similarly cross-subsidies in pricing are usual in state owned enterprises mostly in service of political goals whereas for privately owned firms, competition emasculates cross subsidies pricing. On the contrary, for a monopoly power government intervention is desirable. But this statement takes liberty from the argument that there is a difference between government regulation of a business enterprise and government ownership of such business unit with management and decision-making rights. In case of monopoly, government regulation may be desirable. When a firm is both privatized and regulated then its fate depends mostly on the form of stakes between the firm and the government.

A state owned enterprise offers meager incentives to monitor the managerial attitude of individuals executing its functions. The manager here is responsible for political decisions and when it comes to running the business, he/she may pursue coveted personal goals. But a privately owned enterprise is headed by a manager whose attitude is constantly scrutinized by the markets. All the relevant information penetrates into the capital, financial, labor and consumer markets via prices and there can be no covert agenda to pursue. In a nutshell, privately owned firms are managed by self-interested board members and share-holders compared to disinterested bureaucrats in state owned enterprises.

The discussion of privatization (which is transfer of ownership) in economic prospective and its impact on efficiency or productivity establishes that efficiency is a function of market and its incentive structure. After redressing the market structure, there is not much difference left between public ownership and private ownership where proper or relevant policies, incentives and institutional deficiencies can overcome the shortcomings of state owned enterprises without changing ownership. The study of Canadian railroads reveals that as soon as competition was

introduced, there was no trace of poor efficiency or productivity exhibited by the state owned Canadian National and its private competitor, the Canadian Pacific<sup>1</sup>.

Privatization follows a procedure that has evolved over the years as the countries all over the world started adopting privatization. Government or the concerned authorities prepare a report that includes the list of state owned enterprises to be privatized. A primary method of privatization involves government to sell out shares of a particular state owned enterprise to private investors. This method is a crucial source of revenue from privatization for government. However, it is argued that this method pre-requisites a relatively strong foundations of financial markets. But Jamaica is a success story of such method of privatization despite of her underdeveloped financial markets. A commonly used method of privatization is referred to as voucher privatization. Under this method, government unanimously allocates vouchers which represent the shares of a particular state owned entity to its authorized citizens who can re-sell the vouchers to other investors or exchange them for shares of the same enterprise that is privatized. This is a fast method of privatization; it does not raise revenue for the government, yet if rapid privatization is the agenda of a government then this method is opted. Central and Eastern European countries adopted voucher privatization in fear of re-emergence of communist parties. The voucher privatization was not very successful, a lack of institutional support was deemed responsible. Another method is regarded as the internal privatization. Under internal privatization (which is also known as employee or management buy-out), the state owned entities are sold to managers who have prior knowledge of the entities' structure. The sale price is very low so it cannot be a source of revenue for the government. Internal privatization is conceived as successful if its sale is made to the strategic investors who are familiar with adding value to the investment through their understanding and experience of market. Restitution, a very

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<sup>1</sup> Nellis (1994)

rare method of privatization that may be undertaken in particular circumstances gives property rights of a specific enterprise back to its original owner(s).

Hungary is an epitome of privatization. The country opted for a rapid privatization but sold the entities to strategic investors, foreign buyers particularly. The result was over whelming as it not only brought foreign investment but technological changes in the country as well. Some Latin American countries also witnessed a successful privatization but dried up the revenues to redeem the longstanding debts rather than creating value<sup>2</sup>.

Pakistan also could not keep herself away from privatization for a long time. In 1988, government employed the consultancy services of N.M. Rothschild to study privatization strategy. The report recommended a wide spread ownership that would help in the development of capital markets by injecting a huge number of small savers into share ownership. The report deemed 7 out of 50 state owned enterprises as a potential candidates to initiate privatization using wide spread offers. Another seven enterprises were recommended to be privatized internally during a five year plan which is quite sufficient to locate strategic investors. A department was created under ministry of finance to conduct financial restructuring, adoption of techniques, develop new procedures and handle complexities of transactions. However, the recommendations of consultancy were ignored. In 1990s, without ever bothering the commendations of consultancy report, government initiated privatization policy by forming a committee which prepared another report in which state owned enterprises as well as nationalized units were offered for privatization. A privatization commission was created in 1991 to execute the disinvestment strategy [Bokhari 1998]. Pakistan Privatization Commission was an

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<sup>2</sup> Filipovic, 2005

outcome of the 1988 IMF/World Bank Structural Adjustment package arrangement with the government of Pakistan. [Cameron 1997]

Since 1990, 167 state owned enterprises have been sold and the government earned 529,649.9 million Rupees as revenue<sup>3</sup>. Privatization in Pakistan has been conducted in phases. The first phase of privatization (1992-96) witnessed partial privatization of banking sector and divestiture of industrial units. The second phase initiated in 1997 and lasted till 2000 marked a complete deregulation of banking sector. The third phase (2001-2008) went through deregulation of non-banking sector. The fourth phase of privatization is in progress and started in 2013. The Cabinet Committee on Privatization (CCoP) has approved 32 state owned units for early privatization. The sectors like Oil & Gas, Banking and Finance, Power, Industries, Transport and Real Estate are offered for privatization in fourth phase.

The existing literature on privatization mostly expresses the effect of privatization on efficiency and productivity<sup>4</sup>. All the literature explores privatization in economic prospect obviously. There are fine examples of privatization success and failures. Many studies implored the implication and consequences of privatization with respect to different economic structures and also investigated the causes as well as justifications of such results. Various studies found in Pakistan are related to financial and banking sector<sup>5</sup> where efficiency and privatization are inspected.

This study is unique in its style of addressing the privatization policy. The study scrutinizes privatization with respect to organizational and political factors while keeping in view its impact on efficiency or performance of privatized units.

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<sup>3</sup>Privatization Commission of Pakistan

<sup>4</sup>Shirley and Walsh, (2001), Djankov,Murrell, (2002), Dornbusch, Krugman, Layard, and Summers, (1991), Megginson and Netter (2001), Lipton and Sachs, (1990), Blanchard, Dornbusch, Krugman, Layard, and Summers, (1991), Caves and Christensen, (1980), Dotgson, (1987), Foreman Peck,(1989),Alam, (1989), Candoy, (1989), Kemal, (1993), (1996), Naqvi and Kemal (1991), (1994), (1998), Beesley, (1997).

<sup>5</sup> Hardy and Patti (2001), Qayyum (2007), Khalid (2006).

The objectives of this study are:

- Explore the efficiency changes in privatized units.
- Investigating the outcome of privatization in privatized and publically owned enterprises.
- To study the contribution of organizational and political factors in explaining the outcome of privatization.

The rest of study is organized as: Chapter 2 gives the literature review to explore the issue under consideration; Chapter 3 presents the issues of privatization in Pakistan; Chapter 4 presents methodology and a detailed discussion of results; Chapter 5 gives conclusion.

## **CHAPTER 2**

### **LITERATURE REVIEW**

Privatization, in its nature, is a 'transfer' as it is the divestiture of publicly owned enterprises to private sector. This fact triggers a debate over the concept of firms that are owned privately, and the firms that are owned publically. Theoretically, public and private firms can be differentiated on the base of three theories.

Agency theory classifies owners as principle and managers as agents. The theory proposes that the agents or the managers in both private and public firms pursue their self-interests and they will always prefer maximizing their own utility to the benefit of the whole organization. This problem can be elevated in public firms. However, such an attitude is contained in private firms by different factors, such as: firstly, in the presence of a market of ownership rights, the principle or the owner can sell if management performance is not satisfactory. Secondly, threat of take-over and bankruptcy prevents managers for being negligent. Thirdly, a thriving managerial labor market scrutinizes the behavior of managers. Such factors are absent in case of state owned enterprises where the managers are politicians or bureaucrats [Villalonga 2002]. Privatization can be deemed as a change in the configuration of this principal-agent model.

Public choice theory claims that politicians are motivated by their self-interests. They set objectives of a publically owned firm in a manner to achieve confidence of voters rather than efficiency and productivity of the firm. The decisive owners of a publically owned enterprise are the general public which face a higher cost of monitoring these enterprises through gathering information or lobbying, than the advantage that may come in the form of low taxes and rational public expenditures. Moreover, interest groups that may be coalition of voters or trade unions

benefit incessantly through rent seeking. Both agency and public choice theory highlight relationship between ownership and efficiency [Donaldson & Davis, 1991].

Organizational theories stipulate that public and private firms can be differentiated on the basis of organizational structure. In this connection, formalization; which is vastness of rules and formal processes, is quite common in public firms where these firms have higher number of rules and red tapism compared to private firms [Rainey & Bozeman, 2000]. Market contains information and incentives which are absent in public firms, rather these firms are bounded by external forces like politics and bureaucracy. This makes them exposed to external scrutiny, making their goals large in number, imperceptible, and contradictory. Moreover, public firms have managers that enjoy less autonomy; and also organizational hierarchy is complex [Perry & Rainey, 1988].

Principal-agent theory and public choice theory deliver an influential theoretical justification for privatization [Boycko, Shleifer and Vishny, 1996].

All the arguments that elaborate differences between public and private units do propose a case for privatization. Nellis (1994) investigated the factors that could explain the rationale of privatization. In his study, he chalked out various reasons of privatization. He argued that there could be as much as five reasons for which a private firm is better than a public firm. One is that a private firm sets up a market for managers which ends up in high quality management. Second is that private firms are subject to higher scrutiny because of capital markets. Such gander disciplines the privately owned firms. Now publicly owned firms operate under soft budget controls due to direct or indirect pledge by the state which can channelize loans bearing low interest rates than market for the public firms to borrow [János 2003]. In addition, these firms devour subsidies, tax rebate and sometimes they do not need to pay utility bills. The third reason



clarified is that the private firms are more prone to exit than public firms where factors like bankruptcy, liquidation, and hostile takeovers keep pressing the situations. In view of such factors, the managers running private firms adopt energetic efficiency boost up measures. The fourth reason designates that when it comes to the matters related to operation, the privately owned enterprises are less likely to be interfered by politicians. Private ownership vaccines such firms from overstaffing, under-capitalization, inappropriate plant location, and inefficient or erroneous use of inputs etc. Lastly, the fifth reason proposes that private firms are managed by self-interested board members and share-holders and not by least interested bureaucrats. Nellis (1994) argues that there are real-world solutions to these problems instead of changing the ownership. The managers should be recruited from outside publically owned enterprises or international managers should be recruited. In order to remove soft budget controls, all the pledges and guarantees should be removed by the state. In this way, public firms will have to borrow from capital markets at interest rate prevailing in the market. All poorly performing public enterprises should be liquidated. For public firm managers to act efficiently, a performance contract must be signed that stipulates mutual obligations for principle and agent. Yet the author contradicts by stating that these solutions, though effective, are not long lasting because of backsliding. According to Nellis (1994), privately owned firms do not always perform well but usually they do. This is because there is always partial attempt of initiating economic reforms in lower developing countries (LDCs). There exists no will or endurance or knowledge or luck to impose reforms. The government is ever interested in keeping prices low to accumulate political advantage, which is then translated into fiscal burden. The heads of these states possess non-economic goals for state-owned enterprises. The results are overwhelming for a state-owned enterprise only if commercial gains are preferred to non-commercial gains.

During challenging and depraved times, the government of lower developing countries commit to prefer commercial objectives to non-commercial goals by establishing harder budget controls, and providing autonomy to public firms managers etc. Unfortunately, when the crisis ride out, or regime changes or another political claim sprouts, such priorities that accelerated the engine of economic reforms earlier, fade away. This is backsliding which is a very common scenario in lower developing countries. In the presence of such scenario, practical solutions to indigenous problems related to publically owned firms cannot deliver fruitful results and change of ownership surfaces as a last resort. Rondinelli and Iacono (1996) believed that government ownership was considered as desirable in many development countries because government ownership was perceived as crucial for economic growth which was absent in these countries.

Adam Smith (1776) prophesied that monopoly always poses a threat to efficient management. So, if performance is to be achieved universally then free and universal competition holds status of a pre-requisite; which compels everybody to resort to it for the purpose of self-defense. Based on this argument, Vickers & Yarrow (1991) proposed that competition can be more important influence than ownership. Yet, they argue that competition in a product market or any market does not exist completely. Moreover, if competition is already being curbed by the state through legal barriers to entry, trade protection and other such measures then the next step would be de-regulation and liberalization which is not entirely different from privatization.

Allen and Douglas Gale (1999) argue that competition and deregulation hold more significance than privatization or ownership changes to mend performance of firms. On the other hand, Shleifer (1998) believe that privatization is crucial to achieve performance and efficiency.

Megginson & Netter (2001) debated that the rationale of government intervention in the form of government ownership is based on market failure or professed market failure. Under such

circumstances, countries retort to market failure with government ownership. In the same sense, privatization is a response to government failure.

Lammam & Niels Veldhuis (2009) explained in their report for Canadian crown corporations that public sector tends to employ less capital while more labour intensive techniques compared to the private sector. Consequently, publically owned enterprises are less productive. Private firms on the other hand keep innovating and updating their technology to compete in the market by offering better quality of products and services to the customers. Competition in private sector disciplines the firms to regularly invest in research and development in order to cater demands effectively. Publically owned firms on the other hand are protected by state imposed monopoly that keeps out competition as well as motives and incentives for these firms to innovate and expand through research and development. A classic example of such scenario is Hindustan Motors and Toyota Motors. Both automobile manufacturers were incepted in almost the same year but Hindustan Motors was a state monopoly and Toyota Motors debuted as a private firm. Toyota was selling five million cars after fifty years with new and innovative models every year. Conversely, Hindustan Motors was selling 18000 Ambassadors, and still with same model and design. The same Ambassador car was sold for seven decades in India with meager modifications.<sup>6</sup>

An OECD report published in 2009 highlights that a state must not privatize publically owned enterprises before setting up a suitable regulatory framework. Such framework must include regulation to safeguard vigorous competition. Also the regulation must be viable economically and can be particularized to supervise the actions where monopoly can possibly prevail.

Now, in terms of objectives, privatization narrows down two objectives broadly which are widely accepted. These objectives are rationalization of public finance and expansion of

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<sup>6</sup> Daniel Yergin. 2002. *Commanding heights the battle for the world economy*. Boston: WGBH Boston Video

economic efficiency. Public finance rationalization infers that privatization can curtail government expenditures related to state owned enterprises, also the sale of these units will generate revenue that can be utilized in other important fields. Similarly, privatization will expand economic efficiency because the production of goods and services is more likely to be efficient under private ownership compared to public ownership. The sale of public enterprises also encourages private sector to participate in economic activities more vigorously, it can help develop capital markets, provide lucrative foreign investment opportunities, and shift the focus of government on more significant administrative responsibilities that are exclusive to state itself rather than management of business enterprises in which private sector can outperform [Torp and Peter Rekve 1998].

Hemming & N. Prabha (1996) explained that pragmatism and expediency are the core motives of privatization. Pragmatic considerations have been explained above by Torp and Peter (1998). They clarified that expediency implies such decisions that can be regarded essential to guarantee a continuous influx of foreign assistance. For example, during 1990s the International Monetary Fund (IMF) declared privatization as a condition so as to discuss repayment of debt for India. When debt owed to IMF and World Bank accumulates, such countries are obliged to track the recommendations offered by these organizations regarding suitable economic development policies in response for debt rescheduling or the approval of further assistance. Based on this argument, it can be expected that as the levels of national debt arise, privatization will speed up. The findings of this study establish that country-specific, policy-makers specific factors and expediency are among the forerunners of privatization.

After Second World War, Germany took first major step of privatization, which was then referred to as “denationalization”. The German government sold off a portion of its shares in

Volkswagen and an industrial unit to private investors. Nevertheless, privatization was popularized as an economic policy by Margaret Thatcher when she initiated a crusade against state ownership in Britain.

David (2004) argued that the British privatization program was cautious rather than precipitous. Privatization of some units was delayed, like British Airways because of tough market conditions whereas some units were rapidly offered for sale in view of soaring prospects, for example Jaguar cars.

The initial divestiture was related to business belonging to competitive markets like aerospace and shipbuilding which were facing intense international competition. But shipbuilding industry could not fight such competitive conditions and kept facing loss incessantly, which even privatization could not cure. Conversely, a large portion of privatization later involved publically owned enterprises that were operating under monopoly and were known as public utilities. Such enterprises were gas, electricity, water, telecommunications, sewerage and rail road. Since such monopolies were regarded as natural monopolies, so they were not considered appropriate for private ownership. During last two decades of twentieth century, telecommunications witnessed some major technological changes like optical fibre cables and wireless technologies which diminished the features of natural monopoly. These technological changes attracted large investments to cater the future demands of telecommunication industry that included data transmission and cellular phones; which British government could not meet with its budgetary limitations. British Telecom surfaced as a success because firstly, its sale necessitated the notion that large public utilities could be sold. Secondly, the government had created a regulatory model for each public utility sold. Thirdly, it was evident from the sale of British Telecom that small investors could be attracted by offering shares at a discount.

The British privatization campaign provides empirical evidence that competition and competition-effective regulation are prerequisites to privatization that can bring performance efficiencies in the economy in the form of low prices at high quality of services. The author argues that it is privatization that ensured completion in British economy otherwise it could have been difficult. Therefore, privatization sired competition coupled with improved regulation of utilities. Also, the privatization of utilities proved profitable to investors as long as regulation held its position. This implies that investors rather than consumers benefitted from privatization during early stages of the program.

The British experience of privatization facilitated economic policy with the evolution of regulatory powers, the understanding of regulatory governance and tools like price cap. The Competition Commission<sup>7</sup> was responsible to supervise the privatized markets. The commission ensured to develop competition when it is missing, and safeguard competition once it is established by encouraging new market entry. The Competition Act 2002 and Enterprise Act are significantly playing their roles to strengthen competition by empowering the authorities to investigate and discipline collusive behavior between players and abuse of market power that may emasculate competition.

The author establishes that British privatization program has proved that privatization has not eroded the impression of state; rather it has reformulated the role of government as a regulator of markets.

European Union decided to deregulate railways two decades ago and Britain was envisaged as a trend blazer to initiate the process. Hilmola and Szekely (2006) argue that the basic agenda of privatizing railway in Europe was to diffuse ownership in the railway so that it becomes responsibility of one organization, improve railway infrastructure and operations.

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<sup>7</sup>The Competition Commission was replaced by Competition and Markets Authority (CMA) in April, 2014.

Initially, Britain railway privatization was deemed as a massive failure because after some time, inflexible outsourcing policies had to be incorporated in railway infrastructure maintenance, trains could not meet schedule timely, there was absence of infrastructure investments especially where condition of rails was poor and there were several dangerous railway accidents. Furthermore, railway infrastructure operator was driven out of London Stock Exchange, and government had to bail out severely indebted and under invested company. Contrary to saving subsidies, railway needed more government funds to move on. For British railway, market demand was too high and maintenance services were insufficient. In the background of these core issues, the government rushed to the end of privatization process by applying numerous changes simultaneously. Furthermore, the private investors responded with very low financing setups because state could not properly indulge investors to the process. Such a blunder was the result of lack of common viewpoint regarding the procedure of implementing the program. Consequently, British Railway underwent an imbalance between commercial gains and social aims dwelling in both government and the private sector. And state was unable to provide a solution. However, coupled with these undesirable outcomes, there was some favorable impact witnessed as well. Mathieu (2003) argued that privatization generated such markets and demand patterns which were not there before privatization. This translated semi-permanent trends into advantageous direction. The railway markets experienced growth, a continuous acceleration in passenger and cargo courses surpassed the declining trend which was started in 1970s. British railway is under the management of private firm but regulated by Office of Rail Regulation. The new industry model proved to be successful for railways. Passenger journeys are 115% higher than 20 years ago, a 70% increase in freight via railway, distance covered by trains rose by 36%, railway enjoys improved safety and customer satisfaction. It is argued that British railway was

not privatized in its schematic sense. Yet, it functions underneath governmental controls where private firms commission to handle contracts which is causing eminent costs to the taxpayers.

Poland is another important case of privatization. Hunter and Leo (2004) explained that the major objectives behind Polish privatization agenda were to rapidly transform central planning system into market economy, and liberalize foreign trade and foreign direct investment. Polish privatization program highlighted some important requirements or concerns regarding the implementation of program. The authors argue that privatization must be quick, socially accepted and widely supported; it must guarantee active private management control over newly privatized firm, and access to foreign capital as well as skills. Initially, Poland faced some constraints. Market infrastructure was non-existent, no market research conducted by businesses, consulting services were very few, and number of competent private managers was very low. In the midst of these issues and a tough task to transform the country politically and socially, the Polish policy makers skillfully decided to opt for private market economy.

Poland also provided sound legal support to the program. The commercialization and privatization Act grants the transformation of a publically owned or communal enterprise into a commercial law company. The Act provides indirect and direct privatization. By indirect privatization, an enterprise originates when the State Treasury borrows 100% of the stocks or shares while waiting for the privatization process to be accomplished while the enterprise is presented by the Minister of Treasury. Whereas, direct privatization ensures the rapid implementation of process via divestiture, or transfer of an enterprise for use against payment (Olga 2010).

Sam (1995) in his study for China, Mexico and Russia found that privatization in China was sluggish and pragmatic because of political concerns. But privatization in Mexico started as



cautious and obligatory. On the contrary, Russia privatization program initiated as unstructured and unreliable.

Mexican privatization objective was its necessity of raising government revenues to bring steadiness in the budget and settle the massive and mounting accumulated external debt. Mexican privatization consumed the sale of state owned enterprises to private investors, or special groups like unions and worker cooperatives.

Privatization in Russia was planned privatization, guided by the state, and spontaneous privatization, driven by the market. Planned privatization was supported by the “Law on Privatization” that necessitated de-nationalization, de-monopolization, expansion of enterprise and competition, the formation of national and local property committees and finances to guide privatization efforts. Yet, Russian privatization was eclipsed by the superiority of economic desires to political authority. People lost confidence in political players because only two groups appeared to be capable of financing privatization, one political elite and other party bureaucracy. Political mangers and party officials gained from inside trading.

From Russian experience, it can be established that for a successful privatization program it is required to possess a strong and stable governance, a clear market reform agenda, various but competitive monetary sources, competitive market structure with vibrant regulatory structures, a transparent administrative privatization process, dispersion of ownership as well as investment, and an unceasing public and private focus to social cost.

The pronouncement of privatization is typically a political decision<sup>8</sup> where politicians and policymakers attempt to promote their political philosophy of reducing the purpose and the size of government as well as political interests that wins for them public opinion by reducing government improvidence. Liou (2010) explained that the surge of privatization in Taiwan was a

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<sup>8</sup> Dunsire (1990), de Ru and Wettenhall (1990)

result of economic liberalization policy and political democratization movement. He clarified, through the evidence of telecommunication that privatization can increase efficiency if it is implemented according to the policy philosophy; unaccountable privatization process will lead to corruption only, if government fails to realize its changed role after privatization then the policy implementation can shun public interests.

The privatization in Philippines was powered by deregulation, financial and trade liberalization and administrative reforms. The state owned enterprises in Philippines were strategically and nationally important. Most of these enterprises were performing similar functions thus replicating activities contained by government. The management position acquired by political leaders and bureaucrats were interlinked [Godinez 1989].

Morocco, after realizing the core reliance on private entrepreneurship and investment as a catalyst to enhance economic growth, initiated its privatization program. The state decided to transfer state controlled enterprises to local and foreign investors. Casablanca stock exchange was realized as an important tool of enhancing the transparency regarding investment of state owned enterprises to local and foreign interest groups. Privatization program powered by stock exchange could provide a cost-effective mode of finance to enterprises. So, privatization and a well-developed capital market appear to be complementary. However, if larger sales are facilitated through stock exchange then the divestiture of SOEs to a particular interest group or consortium will be affected. But again such a step has been criticize as a dense consortium of hybridized shareholdings may release managers from the pressure of performing exceedingly well which can compromise efficiency eventually [Khosrowshahi 1997].

African privatization is mostly concentrated in small firms or light manufacturing because such firms emit little political interest, yet, they faced intense local and foreign competition [Wessel 1991].

Nellis (2005) found that African divestiture procedures involved minor, less valuable, often declining manufacturing, industrial and service businesses. There are several interest groups in Africa that have substantial reasons to postpone, disrupt, or debase privatization program. They do not chant about the material damage these reforms can bring to their cause but refer to the perceived social, economic and financial limitations of privatization. The most transparent method of privatization is sale of shares through public floatation. But this method is hardly opted in Africa. Sale through tenders can be regarded as transparent method, but it depends on the trustworthiness of competent authority. If important industry, manufacturing and service sector is not brought under the agenda of reforms where privatization program implemented is elusive politically and economically, then Africa may face not only financial loss, but poor services and product quality.

The divestiture of telecommunications in African case does not reveal efficiency appraisal because of ownership change but it is when ownership change is coupled with discrete and independent regulation. The creation of institutional support to escort or monitor divestiture appears to be medium as well as long-term solution of achieving efficiency gains through privatization.

Turkish Republic, founded after World War I opted for statism after its inception to clean up the Ottoman Empire's economic and administrative flaws. Simga-Mugan and Yüce (2003) detailed that in late 1940s, Turkey attempted to shred the burden of statism and acquire growth through private sector. Under this agenda, the state economic enterprises (SEE) thus founded were

completely owned by government for the purpose of operating business just like private companies. These SEEs became a major source of industrialization in Turkey. Yet, SEEs were getting transfer of finance from government and were as much as a burden on budget like publically owned enterprises. Turkey initiated its privatization program under the conditions of European Union as Turkey desires to be a member of it, the major activities under program involved sale of government shares in privately owned firms.

For democracy to be made practical, the monopoly of state powered by political influence should be obliterated [Berger 1992]. If it is not achieved then the bureaucrats will endanger, delay the reforms or even if reforms are allowed to take place, they will loot the assets of state-owned firms. On the other hand, privatization can set free vibrant small business that can entice foreign investment [Josef 1996].

Gupta (2008) argues that privatization has become a politically contested economic policy or reform. When it collides with the personal gains of labor unions, local governments which do not want a SOE privatized in their area, political managers who run the SOE, political parties and government ministries prefer control of firm in their hands, privatization becomes a burning question with massive opposition.

The principle argument against privatization denounces it to be favorable to only business and political elites while does not serve the consumers and tax payers. Ironically, the same arguments were presented in favor of privatization in Germany in 1930s when it was aimed to benefit the well-off sectors so as to improve the economic standing as well as political support of elites. Therefore, the effects of privatization may significantly depend upon political, social and economic perspective [Germa 2006].

Hanousek and Svejnar (2000) believe that politically speaking, government possibly will sequence privatization as it may be excessively costly to carry out transaction of all firms simultaneously, secondly, government may want to float information to all investors regarding quality of firm being privatized. Thirdly, the government facilitating reforms may receive severe political opposition so avoiding such situation may create fruitful prospects for the reforms. It can be argued that how the government decides to choose any particular firm for privatization first. For this purpose, various sequencing strategies should be considered. These strategies advice to consider demand and cost shocks, profitability of firm because a profitable firm is less likely to be privatized [Estrin et al, 2007]

Privatization has affected the economies of world in various ways which have been studied in literature.

Privatization is expected to increase efficiency or performance of firms as well as their profitability [Shirley and Walsh, 2001, Djankov, Murrell, 2002, Dornbusch, Krugman, Layard, and Summers, 1991 and Megginson and Netter 2001]. Furthermore privatization is likely to have positive impact on sales and revenues. Private ownership coupled with market forces ensure efficiency of economy. [Lipton and Sachs, 1990, and Blanchard, Dornbusch, Krugman, Layard, and Summers, 1991]

Privatization in Russia resulted in the rise of varied business classes owned by individuals or family like oligarchs. Yet, evidence verifies that they can be more efficient compared to other privatized companies<sup>9</sup>. This is because bureaucrats managing SOEs make predictable decisions compared to private owners who take capricious decisions and excite entrepreneurship.

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<sup>9</sup> Guriev and Rachinsky, (2005) and Gorodnichenko and Grygorenko, (2005)

Chirwa (2004) studied the model of technical efficiency for the privatized firms for selected developed and developing countries. He found that privatization improves the technical efficiency of all firms that are privatized as privatization creates incentives for advances in technical efficiency because of higher domestic competition and structural changes.

Sun and Tong (2002) explored the post privatization changes occurred in 24 Malaysian SOEs and found that Malaysian privatization program proved to be successful. Their results were consistent with other case studies on different countries<sup>10</sup>.

The partial privatization performed on Indian state owned enterprises earned a positive impact on profitability, efficiency and investment. [Gupta 2005]

Cabanda *et.al*; (2002) conducted a before and after privatization performance analysis for Malawian firms over forty two years by comparing financial indicators. They found statistically significant results for overall gains after privatization.

Tongzon *et. al*; (2005) studied effects of port privatization using sample of container terminals. The results suggested that port industry showed significant operational efficiency gains which are contributing to the competitiveness of ports.

Eckel *et. al*; (1997) studied impact of privatization of British Airways on airfares and stock prices. The results exhibited a positive change in economic efficiency of the company.

Andreson, and Palma (1996) argued that the short term effects of privatization are painful as it could decrease employment and stir up inflation. Yet, the long term effects of privatization cannot be ignored when privatization leads to entry of new firms, creating an environment of competition and eventually contributing to efficiency.

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<sup>10</sup> Megginson, Nash, and van Randenborgh (1994), Boubakri and Cosset (1998), and D 'Souza and Megginson (1999)

Arin *et. al;* (2009) examined firms privatized in Turkey. A significant relationship between privatization and efficiency of firm was found.

Juliet (1990) investigated before and after privatization effects on financial as well as operational efficiency of 85 privatized units from 28 industrialized countries covering a timeline of 1990 and 1996. The results exhibited a significant increment in profitability, operating efficiency, output, and dividend payments thus strongly supporting privatization.

The literature on privatization in Pakistan studies various aspects of the policy. Shaikh and Sadaf (2013) while studying effects of privatization on economy in Pakistan argue that government lost in million dollars because it lost resources in context of corruption, privatizing profitable units, and policy loop holes so they believe privatization is undesirable for Pakistan.

Rizwan and Saif (2006) studied the accomplishments of initial public offerings (IPO) in industry for short-run as well as long run. They utilized a sample of 35 offerings from 2000 to 2006 in Pakistan's capital markets and found that the government sold off large and renowned enterprises at quite a lower issue price. This step was unfailing in context of commitment of government to breed support for its privatization program and develop capital markets.

Amer (2010) argues that establishing a proper business environment, regulatory regime and development of financial markets to create potential for the purpose are important concerns for rational privatization policy.

Khalid (2006) investigated the effects of privatization and liberalization on the performance of banking sector in Pakistan. He incorporated CAMELS analysis of financial indicators on timeline of 1990 to 2002. His results revealed a significant improvement in financial indicators specifically in 2002, the last year of observation. This implies that the improvement in financial indicators after privatization emerges in the long run.

Narjess *et. al;* (2001) found that privatization registers improvements in the efficiency when stock market and trade liberalization come first. Their regression analyses reveal that change of control by government and foreign ownership of privatized units are major determinants of profitability.

Abid A. Burki (2010) conducted a study on banking sector. Their results indicate that private banks demonstrate highest level of cost efficiency, followed by foreign, and then state-owned banks. They found that privatized or restructured banks tend to suffer from efficiency losses in the years following privatization or restructuring, but improve performance once they adjust and adapt to new environment. Their results suggest that banks selected for M&A are small in size or poor performing, but following ownership change these banks tend to increase technical efficiency.

The literature review indicates that there are efficiency changes to be expected from the privatization process. The political factors which are expressed through the decision to privatize appear to be affecting the privatization program which will affect the outcome of this policy consequently. Furthermore, the literature also suggests that the efficiency changes after privatization point towards the changes in the organizational structure as privatization is the change of ownership of an organization. This implies that there can be some organizational factors contributing towards the efficiency changes in the privatized units.

The various cases of privatization studied in this chapter strongly suggest that the objectives of privatization must be clear and all the pre-requisites must be considered profoundly before initiating the policy.



## **CHAPTER 3**

### **ISSUES OF PRIVATIZATION IN PAKISTAN**

Privatization in Pakistan was adopted as policy in 1990s. Since then, it has experienced three phases and the fourth is under process. The government of Pakistan found itself committed to deregulate, disinvest, and decentralized in view of huge size of government sired by nationalization policy in 1970s.

Privatization of publically owned enterprises as a policy is politically and socially sensitive. A well-developed privatization program must take care of all the stake holders which include workers, consumers, economy, government and economy because it resets the relationship between public and private business.

Transfer of Managed Establishment Order was recognized by government in 1978. The order empowered previous owners of nationalized units to resume ownership because these owners had the primitive right to ownership of nationalized units. However, a due response from these owners was not received as the policy of deregulation lacked scope and there was no legal or institutional support to the process. In 1985, a Cabinet Committee was formulated to facilitate the privatization program but this step also could not promote the policy because of lack of legal and institutional backing.

The most important step taken was the hiring of N.M. Rothschild to study the feasibility report of privatization in Pakistan. In 1989, a report titled as “Privatization and Public Participation in Pakistan” presented wide spread ownership to develop capital markets in Pakistan. The report suggested caution in initiating the process with wide spread ownership. Out of 50 units, the consultancy firm deemed seven firms appropriate for wide spread ownership offers. Muslim Commercial Bank, Habib Bank, Pakistan International Airlines Corporation (PIAO), Pakistan

National Shipping Corporation (PNSC), Sui Northern Gas Pipelines Ltd (SNGPL), Sui Southern Gas Company (SSGC) and Pakistan State Oil (PSO) were considered for wide spread ownership. There were other seven state owned enterprises that were to be divested to private investors in five years plan. The consultancy recommended establishment of department to facilitate complex transfers, and to carry out financial restructuring of units offered for privatization so that they appear lucrative to investors. The privatization SSGPL was expedited by government but later on, because of political factors the attempts were abandoned. Similarly, disinvestment of 60% share of MCB, 10% of PIAC, 30% of Pak Saudi fertilizers according to the recommendations of consultancy were not implemented. Therefore, the process of privatization could not be initiated because of lack of political will.

During 1990s, a special committee for disinvestment and deregulation was established. The committee presented recommendations of privatization of 118 publically owned enterprises out of which 38% units were nationalized in 1970s. The Privatization Commission established in 1993 had one commission to deregulate industrial units and financial institution, another commission to privatize units in energy sector, and a separate commission for disinvestment in transport and communication.

There was another committee to safeguard the rights of labor employed in state owned enterprises. Under these attempts, a minimum one year of service after privatization was ensured, 10% shares were reserved for labors, the employees were encouraged to take over the unit by putting up competitive bid, Golden shake hand and voluntary separation scheme was offered for officers and workers in units offered for privatization.

There are several technicalities involved in privatization process with respect to regulation, finance, legal and marketing. Privatization in Pakistan followed methodology of i) sale of small

and medium publically owned enterprises in industry and real sector by accepting competitive opened or sealed bidding process presented by private investors. ii) Wide spread ownership process under which shares of state owned enterprises are offered for sale through stock markets at a price per share decided by a valuation process. Iii) Consortium of investment banks including consultancy firms appointed to sell off 26% shares that unlock management rights to strategic investors in order to privatize banking sector and infrastructure. Autonomous regulatory authorities were established by the Privatization Commission with the objective of gaining the confidence of investors. The wide spread ownership method and divestiture through consortium was adopted in case of large industrial units. (Boukhari 1998)

The objectives of privatization are very clear in developed and industrialized economies of world which are: raising government revenue, reducing fiscal deficit, limiting government intervention, submitting state owned enterprises to market discipline, bringing in competition and developing capital markets. The policy of privatization in countries like Pakistan is mostly adopted under the pressure of international institutions (IMF and World Bank). These countries lack will or luck or fortitude to undertake elaborative reforms like privatization that can bring restructuring in economy. The most common and basic phenomenon observed in such countries is backlashing, regularly witnessed in Pakistan from 1980s to present day. When conditions are unfavorable and it becomes imperative to initiate economic reforms, the government and politicians prefer commercial gains to personal political gains and commence reforms. But when the crisis ride out, or regime changes or other political commitments arise, the politicians and government retreat and prefer personal political gains to commercial gains. This is exactly what happened in 1980s when the recommendations of N.M. Rothschild were ignored completely. The privatization of PIA has been delayed for four times in spite of deadlines given by IMF. Same is

the case with Pakistan Steel Mills. The incapability of government to take rough decision that could be expensive politically is the major cause of this delay. Both enterprises have been bleeding profusely at the expense of state treasure because of mismanagement. The majority of employees in both enterprises are attached to major political parties of Pakistan; therefore their privatization could bring serious repercussions for the present government. Planning Commission aims to split and sell off the core business of PIA so that the loss may not be borne by investors. Instead of selling loss making enterprises, the government plans to raise revenue by selling profitable state owned enterprises which is an exhibition of sheer cowardliness on the part of government. From power sector, the government planned to privatize eight power distribution units and four generation units. Yet, backlashing forced government to privatize three distribution units while delaying others to next year or so. Also, the employees of these units have been protesting against privatization which could result in further delay as politicians never want to dismantle their vote bank. In addition to these factors, bureaucracy in Pakistan is also reluctant to support privatization process in view of inquiries that may be opened up by accountability authorities (National Accountability Bureau, Federal Investigation Agency and audit objections).

The government can benefit from present scenario of low energy prices together with privatization of power distribution and generation units, aviation and railway by covering up fiscal deficit.

Hussain (2012) criticized privatization because it brought massive unemployment, incessant channeling of public money into the units privatized and improvement in the services below expectation. Now, the units privatized were bleeding financially not only because of mismanagement but also due to over staffing. The restructuring attempts made by Sharif government

in the form of golden shake hand and voluntary separation scheme in 1990s were crucial to make these units lucrative for private investors. The short run impact of privatization cause decline in employment but the number of employees trend in banking sector in which these schemes were concentrated mostly is increasing with amount of time elapsed after privatization. As far as improvement in services is concerned, major privatization occurred in financial services for which there is an observable efficiency discussed by literature. There were observable changes during initial years of this century in development of micro finance, innovative financial products and services, modernized payment system, and Islamic financial institutions. The customers benefitted from credit cards, loans for consumer products especially cars, housing loan, electronic banking and Automated Teller Machine (ATM).

The author concludes that privatization could not have desirable impact on growth of GDP, investment and employment. Based on objectives of privatization, this conclusion seems absurd. Growth, investment and employment are a product of macroeconomic activities. Privatization brings in competition, promotes business activities, and creates an environment that harbinger efficiency and performance in the long run.

The author argues that privatization proceeds did not contribute to shed off fiscal burden as debt servicing kept rising throughout this period. MCB, UBL, HBL and Bank Alfalah were sold at very low prices to investors in most cases foreigners. In addition, these sales were made in favor of buyers whose background is questionable. He questions the background of Agha Khan Fund that bought HBL and the buyer of MCB (National group, conglomerate of Mian Mansha). The sale of MCB to national group was considered unfair as it was the third highest bidder Siddiqui and Mehwish (2013). Even so, MCB has, undoubtedly, emerged as Pakistan's largest and

powerful bank. Similarly, Agha Khan Fund was a non-corporate entity without having financial statements or balance sheet.

The performance of HBL is evident from its expansion since privatization. The AKF occupies 51% shares, government owns 42.5% shares while general public possess 7.5% shares of HBL. The bank occupies the status of the principal Corporate Banking portfolio in the country with vigorous buildup of investment banking. Here, it becomes imperative to quote Ho Chi Minh as “it does not matter whether the cat is black or white as long as it catches mice”. This does not imply that the transparency in privatization process should be ignored. In fact, these issues discussed by Hussain (2012) are administrative and political in implementation of privatization policy which is the responsibility of PC, a state institution. These factors cannot be considered as the evils of privatization.

Hussain (2012) enthusiastically questions the privatization of PTCL and KESC. According to him, strategic utilities like PTCL should not be privatized because foreign elements could penetrate into confidential telephonic exchange between Pakistan and other countries. The protection of confidentiality for the government in telephonic exchange is a matter of national security that must not be mingled with business. If the national security mechanism is not sound, it does not matter whether the ownership of such “strategic assets” is under state, private sector or foreigners. There is a significant evidence of reluctance of previously colonialized countries like Pakistan and India for foreign ownership Das (2000).

The author believes that even after privatization, KESC has proved to be a burden on state treasury because government has injected almost Rs. 150 billion into it. Firstly, the reason behind KESC making losses incessantly was circular debt. KESC has been receiving sizable subsidies which is against the objective of privatization (disciplining SOEs to market forces

through hard budget constraints). KESC buys electricity from IPPs at a very high cost compared to hydropower plant which is much cheaper. The regulatory authorities established in each privatization case play vital role in post privatization performance but NEPRA remained inefficient. KESC is dependent on thermal power plants operating on fuels. The efficiency of these plants is very low as there are more units of fuel exhausted to produce one unit of electricity. The subsidies from government are obstacles to hard budget constraints as they are providing leverage to KESC against losses. If these protections are lifted up, KESC will make investments in hydro power plants to sell electricity at lower rates otherwise it would default on its liabilities. The case of KESC is not privatization in true sense as it is against the objectives of privatization.

In pursuing privatization policy, most of the objectives of privatization are ignored. In such cases, expectations from privatization cannot be realized. It is, therefore, important to understand privatization in its true spirit to evaluate it appropriately.

## CHAPTER 4

### METHODOLOGY

The privatization is a widely accepted policy to shed the burden of loss making SOEs and minimizing state intervention in business. The effects of privatization have been studied in various economies using different techniques. A favorable effect of privatization on economic performance has been observed.

#### 4.1. Methodology

This section is further divided into two parts. The first part presents t test analysis for profitability in case of each privatized firm. The second part incorporates Difference-in-Differences (DID) approach to compare the efficiency of firms that were privatized with those that were not privatized. The detail of firms used in both analyses is given in Table 3.

##### 4.1.1 t Test Analysis

The t-test evaluates to infer if two groups are statistically different from each other. The t-test analyses are applicable to gauge before and after situation analyses. Here, t-test analyses are used to establish that there are/no statistical differences between before and after privatization groups. This finding will observe efficiency changes and then suggest that whether they do or do not exist for the privatized units. Once efficiency changes are observed, the analyses will direct towards the nature of these efficiency changes (whether increasing or decreasing) across privatized and non-privatized units.

There are twelve privatized firms for which t test has been performed (list of units is given in Table 3). Profit before tax (PBT) has been taken as a proxy of profitability. The t test is applied on PBT with respect to PRIV, which is dummy variable that takes 0 for years before privatization and 1 for years after privatization. So, the efficiency change in privatized firms is



gauged through application of t test on PBT with respect to two groups, i.e. before and after privatization.

The test undertakes only profitability for efficiency on the basis of one of the rationale of privatization that is to cure financial bleeding of SOEs when these are making losses incessantly. PBT is an elaborative indicator of profitability as it captures the operating as well as non-operating profits of the company so it is considered in the analysis. So in a way, it explains the operating performance of firms.

### *Hypothesis*

The null hypothesis for t test stipulates that there are no statistical differences before and after privatization. On the other hand, alternate hypothesis suggests that there exist statistical differences before and after privatization.

The results are presented in Table 1.

**TABLE 1**

<b>T TEST RESULTS</b>		
<b>Firms</b>	<b>t Statistics</b>	<b>p Value</b>
<b>AGTL</b>	-6.203	.000
<b>MTL</b>	-3.716	.001
<b>ALF</b>	-4.608	.001
<b>HBL</b>	-4.216	.001
<b>UBL</b>	-2.899	.013
<b>ARTL</b>	-1.143	.279
<b>NRL</b>	-4.287	.002
<b>POL</b>	-5.025	.000
<b>KESC</b>	-.163	.873
<b>PTCL</b>	3.571	.004
<b>JC</b>	-1.324	.234
<b>MC</b>	-.915	.389

The results reveal significant differences in profitability before and after privatization for eight privatized firms while profitability for remaining four firms is not statistically different before and after privatization. AGTL, MTL, ALF, HBL, UBL, NRL, POL, PTCL show significant differences in profitability before and after privatization. ARTL, KESC, JC AND MC reveal that profitability for these firms is not different statistically. The reason could be less time that has been elapsed after privatization as the effects of privatization emerge in the long run.

#### **4.1.2. Difference-in-Differences Approach**

The t-test analyses for privatized units suggest that there are efficiency changes for eight out of twelve units. Now, the analyses are expanded to include two groups; privatized and non-privatized units so that the difference between the efficiency of these groups can suggest that whether the efficiency changes observed in t-test analyses are desirable in case of privatization or not. Difference in differences (DID) approach is used to carry out these analyses.

Difference in differences is an econometric tool to imitate an experimental research design by utilizing. It captures the effect of a treatment that could be an explanatory variable on an outcome which could be a dependent variable. DID compares the expected (average) change through one point in time for the outcome or dependent variable in the treatment group against the expected change over another point in time for control group or group that did not receive treatment.

Consider model:

$$Y_{it} = \alpha + \beta T_{it} + \gamma TD_{it} + \delta D_{it} + \theta X_{it} + \varepsilon_{it}$$

Y is the outcome of treatment.

$X_{it}$  are the covariates that may affect either the decision of treatment or the outcome of treatment.

T is a dummy for treatment. It takes 1 for treatment and 0 for no treatment

TD is a time dummy. It assumes 1 if treated at baseline and 0 if not treated at baseline. It should be noted that T=0 at baseline and T=1 at follow up. Baseline is the first point in time where all the units or both groups were same, and follow up is the second point in time for which one group received treatment while other did not.

D is T times TD.

Now, to estimate the treatment effect, the differences at two points will be estimated (i.e. the baseline and follow up), then the difference of these estimates is observed.

This can be explained with the help of figure.

It is assumed that if there was no treatment, then the treatment group T would have followed the same trend Now, subtracting diff T=0 from D=1 result is the estimate of impact of treatment.

The difference at follow up between two groups is estimated. This difference is the expected value of outcome at follow up if the group has been treated i.e. TD=1 and T=1 less the expected value of outcome given that the group is not being treated i.e. TD=0 and T=1.

So, at follow up:

$$E(Y_{i1}|TD = 1, T = 1) - E(Y_{it}|TD = 0, T = 1) \dots \dots \dots (1)$$

Now,  $(Y_{i1}|TD = 1, T = 1)$  is treatment group at follow up while  $(Y_{it}|TD = 0, T = 1)$  is the control group at follow up.

$$\delta + \theta \{E(Y_{it}|TD = 1, T = 1) - E(Y_{it}|TD = 1, T = 1)\} \dots \dots \dots (2)$$

$Y_{i1}$  is the group that received treatment.

Similarly at baseline:

$$E(Y_{i0}|TD = 1, T = 1) - E(Y_{i0}|TD = 0, T = 1) \dots \dots \dots (3)$$

Now,  $(Y_{i0}|TD = 1, T = 1)$  is treatment group at baseline while  $(Y_{i0}|TD = 0, T = 1)$  is control group at baseline.

$$(0)\delta + \theta \{E(Y_{i0}|TD = 1, T = 1) - E(Y_{i0}|TD = 0, T = 1)\} \dots \dots \dots (4)$$

$Y_{i0}$  is the group that did not receive treatment i.e. the control group.

Here equation (4) is difference at follow up while equation (2) is difference at base line. The difference between the two will yield DID estimator.

Now, subtracting equation (4) from equation (2)

$$[\delta + \theta \{E(Y_{it}|TD = 1, T = 1) - E(Y_{it}|TD = 0, T = 1)\}] - [\theta\{E(Y_{i0}|TD = 1, T = 1) - E(Y_{i0}|TD = 0, T = 1)\}] \dots \dots \dots (5)$$

$$\delta + \theta\{E(Y_{it}|TD = 1, T = 1) - E(Y_{it}|TD = 0, T = 1)\} - \theta\{E(Y_{i0}|TD = 1, T = 1) - E(Y_{i0}|TD = 0, T = 1)\} \dots \dots \dots (6)$$

Here, from equation (2) and (4)

$\{E(Y_{it}|TD = 1, T = 1) - E(Y_{it}|TD = 0, T = 1)\}$  and  $\{E(Y_{i0}|TD = 1, T = 1) - E(Y_{i0}|TD = 0, T = 1)\}$  are omitted variables bias OVB. As, the key assumption for DID states that omitted variables bias is constant over time so

$$\{E(Y_{it}|TD = 1, T = 1) - E(Y_{it}|TD = 0, T = 1)\} - \{E(Y_{i0}|TD = 1, T = 1) - E(Y_{i0}|TD = 0, T = 1)\} = 0$$

So, equation (6) is left with  $\delta$ .

Therefore,  $\delta$  is the DID estimator or the impact of treatment as it is the difference in follow up less difference at baseline.

**Analytical Framework**

The study takes into account the effect of privatization while considering it a treatment. There are two groups. One is that was privatized and the other is that is not privatized. The privatized

group is the treatment group while non-privatized group is the control group. There are ten privatized units while seven non-privatized units included in analysis. The baseline is assumed as year 2000 during which none of the units observed were privatized and follow up is taken as year 2012 where ten of 17 units were privatized. The difference between treatment group and control group at baseline less the difference between treatment group and control group at follow up will yield the impact of treatment. In other words, the difference between efficiency of privatized firms and the efficiency of SOEs will give the impact of privatization on efficiency.

### ***Econometric Model***

The theme of this study has been adopted from the research work of Villalonga (2000). He utilized three models to explain privatization and efficiency through political and organizational aspects.

#### *The Model*

$$ROA_{it} = \alpha + \beta T_{it} + \gamma TD_{it} + \delta D_{it} + \varphi SIZE_{it} + \omega CFO_{it} + \tau CIR_{it} + \lambda AT_{it} + \mu CR_{it} + \varepsilon_{it}$$

ROA is return on assets, taken as proxy for profitability<sup>11</sup>. ROA exposes the profitability of a firm with regard to its assets. It voices the efficiency of management to hire assets in generating earnings.

T is a dummy for treatment i.e. 1 for privatization and 0 for no privatization. TD is time dummy. It assumes 1 if privatized at baseline and 0 if not privatized at baseline. It should be noted that T=0 at baseline and T=1 at follow up.

SIZE is the size of firm for which sales are taken as proxy<sup>12</sup>. CFO is cash flow from operating activities. CFO specifies the capability of an organization or to handle its short term liabilities

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<sup>11</sup> Abdelsalam, Masry and Elsegini., (2008); Adams & Mehran, (2003)

<sup>12</sup> Dalbor, M., and Upneja, A. (2004) and Murat (2008).

through the cash generating from the operational activities of that company. CFO is a better clue of liquidity compared to income because the cash is used to pay off bills

CIR is capital intensity ratio which is the ratio of assets to sales or revenue. Any business that requires huge amount of financial resources to produce a good or product is a capital intensive business. AT is the asset turnover which is the ratio of sales to assets. It expresses the ability of a firm to generate revenue per unit of asset. CR is the current ratio. It is a liquidity ratio that captures the capacity of a firm to meet its short-term obligations. SIZE CFO CIR AT and CR are covariates. All variables are in log form. Here, CFO, AT and CR are organizational factors while CFO and Size are political factors.

### ***Decision about Covariates***

Prospective covariates are those that are likely to affect treatment selection and outcomes. In this study efficiency analysis for organizational factors is gauged through managerial performance as explained by Tracy (1983). Since the productivity of a firm largely depends upon managerial performance so Tracy (1983) explained that a manager has to perform three roles: earning profit, monitoring the financial condition of a company and preventing or checking cash-outs. It means that profit is not everything. By financial condition, he means that the managers must keep assets and liabilities into limits and relative to the sales as well as expenses of the company. Similarly, managers must be capable of preventing cash shortages that could default the business on its liabilities. Therefore, balance sheet, income statement and cash flow statement are important to report the performance of a company. Here CR, CFO, ROA and AT are covariates that may affect the outcome of privatization i.e. efficiency or performance.

Similarly, the politicians usually keep their short-term goals in mind before initiating privatization. In this connection, size of the firm and buyer (whether local or foreign) are crucial for initiating program. The size reveals possible resistance to privatization program which could

dismantle the vote bank of politicians. The government is less likely to privatize those units that are more capital intensive compared to low capital intensive units<sup>13</sup>. The public sector enjoys implicit or explicit guarantee from state, and SOEs can also borrow at less interest rate compared to market interest rate at which privately owned firms borrow. Finally, SOEs have access to state treasury while private firms do not possess it<sup>14</sup>. These factors make it plausible to believe that the government will not prefer highly capital intensive units for privatization. Hence these two political factors act as covariates that may affect the decision of privatization in this case.

## 4.2. RESULTS AND DISCUSSION

The results are reported in Table 2 as:

Table 2

<b>DID ESTIMATION</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
<b>T</b>	-814.9851	574.1896	-1.419366	0.1777
<b>TD</b>	-1954.994	645.3303	-3.029447	0.0090
<b>D</b>	1703.583	705.2814	2.415465	0.0300
<b>CFO</b>	-893.9156	139.0062	-6.430763	0.0000
<b>CR</b>	923.3663	335.4314	2.752773	0.0156
<b>AT</b>	-715.9552	283.3630	-2.526636	0.0242
<b>CIR</b>	645.8703	178.9038	3.610153	0.0028
<b>SIZE</b>	1135.724	137.4400	8.263414	0.0000
<b>Adjusted R-squared</b>	0.804041			
<b>F-statistic</b>	12.28352			
<b>R-squared</b>	0.875299			
<b>Prob(F-statistic)</b>	0.000040			

<sup>13</sup> Villalonga (2000)

<sup>14</sup> John 2004)

The DID estimator for our model is significantly positive. This means that there is a difference in outcome between privatized units and the SOEs which means that the efficiency of treatment group i.e. the privatized units has increased compared to the control group which is of SOEs.

The results show compelling evidence in favor of privatization. The organizational factors in the form of managerial performance are significantly affecting the impact of privatization. The profitability of a firm does not ensure the survival of firm or business unit alone. This implies that profit cannot be managed without managing the financial condition which is affected by sales/revenue and expenses that create profit. Similarly, the profit making operations may dry up cash rather than bringing in cash flows. The managerial performance of all privatized firms in this study is contributing to efficiency changes after they have been privatized. The impact of these activities on privatized firms explains the financial condition of privatized firms appropriately. The basic finding of this study is the positive effects of efficiency on privatization which is consistent with literature.

The indicators of managerial performance show dispersed results. Cash flow from operating activities is significantly negative. Cash flow from operating activities represent the cash brought in the form of occurrent and steady business operations which include manufacturing, selling off goods or delivering services. The results show that CFO is not explaining the impact of privatization on efficiency.

The asset turnover ratio also reveals negative and significant results. AT depicts the potential of a firm to effectively use assets in making money. This suggests that the efficiency gains of privatized firms are not yielded by the ability of these firms in converting assets into money.

The negative impact of CFO and AT can be explained by the fact that less time has been elapsed in privatization of most of these firms. The empirical evidence suggests that privatization reaps



fruits in the long run because the units that are privatized face major changes in their core structures so the effects may take time to surface. The reason behind CFO of privatized firms that does not appear to be increasing ROA or efficiency could be the operational commitments which were to bear fruitful results in future. AT depends on asset base that varies from firm to firm. The asset base for privatized firms could be low due to divestiture as at times government sells only core assets of a SOE, like in case of PIA, government has planned to sell the core assets. A negative AT and ROA relationship can also be explained by the fact that the revenue of firms may not be coming from sales but from non-operational activities.

CR is also showing positive and significant results. The current ratio is actually ratio of assets to liabilities. It is leverage ratio that depicts the ability of a firm to meet its short term liabilities. The positive results for CR reveal that the management of privatized firms can meet its short term liabilities to contribute positively to efficiency of privatized firms.

Capital intensity ratio (CIR) and size are highly significant and positive. These two covariates are included to assess the political factors affecting privatization and its outcome. This means that the decision of privatization of a unit having high CIR has positively affected the efficiency of firm. Similarly, the size of firms has contributed positively to the efficiency of firms privatized.

The political factors in the form of capital intensity ratio and size appear favorable to efficiency gains in privatized units. The results offer encouragement regarding decision of privatization on the base of size and capital intensity. The government has been delaying privatization of PIA, PSM and Pakistan Railway because of its huge size. The resistance from workers risks the political advantage on one side, while there is a significant chance of achieving efficiency gains after privatizing these units. Similarly, if CIR is considered for firm to be privatized, the decision

must not be suspended because of higher CIR due to favorable interaction of CIR and efficiency gains after privatization. A politician may expedite the process of privatization for firm that has low CIR because it could generate more revenue by employing less assets. For the firms having higher CIR, it is believed that only government can fulfill huge capital requirements for a firm as the SOEs face soft budget constraint and they have access to state treasury, so, the firms bearing higher CIR must not be considered for privatization. But the results reveal that as CIR increases, so does the efficiency gains. The positive effect of CIR on efficiency gains is consistent with the findings of Villalonga (2000).

### **4.3. DATA**

The data has been collected for twelve privatized firms and seven SOEs. For t test analysis, twelve privatized firms have been used with data from four years prior to privatization up to 2013 while for DID, ten privatized and seven SOEs have been taken for two time periods i.e. 2000 and 2012. The non-availability of data for various firms to expand sample is the major limitation of this study. The data was compiled from the annual financial reports for each firm published by them. The Table 3 lists the units of observation.

**Table 3**

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**LIST OF UNITS USED IN ANALYSES**

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<b>Sr. no</b>	<b>Firms</b>	<b>Status</b>
1	Al- Ghazi Tractors (AGTL)	Privatized
2	Millat Tractors (MTL)	Privatized
3	Bank Alfalah (ALF)	Privatized
4	Habib Bank Limited (HBL)	Privatized
5	United Bank Limited (UBL)	Privatized
6	Attock Refinery (ARTL)	Privatized
7	National Refinery Limited (NRL)	Privatized
8	Pakistan Oilfields Limited (POL)	Privatized
9	Karachi Electric Supply Limited (KESC)	Privatized
10	Pakistan Telecommunications Limited (PTCL)	Privatized
11	Jawedan Cement (JC)	Privatized
12	Mustehkam Cement (MC)	Privatized
13	Bank of Punjab (BOP)	SOEs
14	National Bank of Pakistan (NBP)	SOEs
15	Oil and Gas Development Corporation Limited (OGDCL)	SOEs
16	Pakistan International Airlines (PIA)	SOEs
17	Pakistan National Shipping Corporation (PNSC)	SOEs
18	Sui Northern Gas Pipeline Limited (SNGPL)	SOEs
19	Sui Southern Gas Pipeline Limited (SSGPL)	SOEs

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*Source: Privatization Commission of Pakistan*

## CHAPTER 5

### CONCLUSION

The fundamental agenda behind privatization program in any country is to ensure or improve efficiency. This implies that impact of privatization can be gauged through efficiency changes before and after the program. By definition, privatization is change of ownership from public to private sector. This change of management makes it crucial to study efficiency changes in context of management which becomes managerial performance. There are several approaches to study efficiency in literature but managerial performance is taken into consideration because of the underlying philosophy of privatization which signifies that public management of enterprises is inefficient, careless, corrupted at times as public managers serve their own purposes. Hence, there exists an interaction of political as well as organizational factors that contribute to effects of privatization in any particular industry or firm privatized. Organizational factors are exhibited in managerial performance. Political factors are variables that affect the decision of concerned authority (which is usually bureaucrat/politician or both) to privatize any particular firm or industry. So this decision made on the grounds of politics affects the prospects of that particular firm or industry.

The study undertakes two types of analysis. One is efficiency change through t test and other is DID Approach. For efficiency change analysis, t test is applied for twelve privatized units on PBT which is a proxy for profitability with respect to PRIV which is a dummy that takes 0 for time before privatization and 1 for time after privatization. The results reveal that efficiency or profitability is statistically different for AGTL, MTL, ALF, HBL, UBL, NRL, POL, and PTCL. ARTL, KESC, JC and MC reveal that profitability for these firms is not different statistically. Therefore, it can be asserted that efficiency changes are observed after privatization.

The DID approach uses ten privatized units and seven non-privatized or SOEs units. Privatization is considered as treatment. The privatized firms are branded as treatment group while SOEs are regarded as control group or group that did not receive treatment. Return on asset is the outcome of treatment i.e. efficiency is the outcome of privatization. The baseline at which no firm has received treatment is year 2000, while follow up is the time period at which one group received treatment, it is taken as year 2012. The impact of treatment is gauged through the difference between treatment group and control group at baseline less the difference between treatment group and control group at follow up. The covariates that may affect the outcome of treatment are the organizational variables assessed through managerial performance for which current ratio, cash flow from operating services and asset turnover have been used as proxies. Similarly, Political factors are taken as covariates that may affect the decision of treatment and then efficiency consequently. Size and capital intensity ratio represent political factors.

The results reveal that the DID estimator is positive so that there exist difference in both groups after receiving treatment. This implies that the efficiency of the firms increase after they are privatized. The two indicators of managerial performance (cash flow from operating activities and asset turnover) are negative which reveal that they do not contribute to the efficiency gain caused by privatization, however this effect can be justified by the fact that most of the firms have experienced less post privatization time period till 2012 while the positive effect of privatization may be revealed in the long run. The other indicator which is current ratio affects the outcome positively. Similarly political factors do explain that if the decision of privatization is based on these two factors, then they can bring in efficiency gains even if they do not bear political gains. The results of this analysis appear favorable to privatization. So, privatization should be adopted. Yet, the private ownership is not the objective of privatization rather it is a medium to reach an

end. The only thing that matters is the situation that efficiently obliges to the requirements of general public that are the consumers. Private ownership is capable of delivering that role only if it works within the framework that promotes competition. Privatization should be supported as a mean to promote competition and end government monopolies.

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