

PRIVATIZATION AND FIRM PERFORMANCE:

THE CASE OF LIBYA

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ABSTRACT

This study specially addresses the economic aspects of the privatization programme in Libya. The main objectives of this study are to explore the effectiveness of the privatization programme in the industrial companies; to evaluate the privatization effects on firm performance in the industrial companies; and to identify the important obstacles that hinder the privatization programme. The firms' performances were evaluated using both primary and secondary data analyses. Questionnaires were used to collect primary data. Secondary data were collected from the financial reports of the selected privatized firms for the period 2002-2010. Two econometric analyses; mean comparison and traditional panel models were employed in the empirical analysis. In the mean comparison analysis, the performances of state-owned enterprises were examined. For traditional panel analysis, the fixed effects model and the random effects model were employed to analyze the effect of the privatization programme on firm performances. Modelling of the traditional panel models involved two dependent variables (operational efficiency and profitability level) and six independent variables (productivity, ownership structure, employment, capital, privatization and liquidity). The results of the field survey show that managers and workers were in favour of the privatization programme and privatization in Libya has faced minor difficulties. The results of the mean comparison analysis indicate a significant difference of mean values in pre-privatization and post-privatization. The mean values of profitability level, operating efficiency, capital, ownership structure and productivity in the post-privatization are higher than in pre-privatization. The mean value of employment in post-privatization is lower than in pre-privatization. The results of panel analysis show that privatization and employment have positive and significant effects on operational efficiency and the profitability level of privatized firms; ownership structure has significantly improved privatized firms' efficiency, but has no effect on profitability level; and liquidity has no statistically significant effect on privatized firm's operating efficiency and profitability level. The privatization programme in Libya has improved the performance and the working conditions of privatized firms.

Keywords: privatization and performance.

ABSTRAK

Kajian ini memberi tumpuan kepada aspek ekonomi program penswastan di Libya. Objektif utama kajian ini adalah untuk mengkaji keberkesanan program penswastan di syarikat-syarikat perindustrian; menilai kesan penswastan ke atas prestasi firma di syarikat-syarikat perindustrian; dan mengenal pasti halangan-halangan penting yang menghalang program penswastan. Prestasi firma dinilai menggunakan analisis data primer dan sekunder. Data primer dikumpul menggunakan kaedah kajian lapangan. Kaedah soal selidik pula digunakan untuk mengumpul data primer. Data sekunder dikumpulkan daripada laporan kewangan syarikat-syarikat terpilih bagi tempoh 2002-2010. Dua analisis ekonometrik; perbandingan min dan model panel tradisional digunakan dalam analisis empirik. Dalam analisis perbandingan min, prestasi 13 buah firma yang diswastakan telah dikaji. Bagi analisis panel tradisional, model kesan tetap dan model kesan rawak digunakan untuk menganalisis kesan program penswastan ke atas prestasi firma. Pemodelan model panel tradisional melibatkan dua pemboleh ubah bersandar (kecekapan operasi dan tingkat keuntungan) dan enam pemboleh ubah bebas (produktiviti, struktur pemilikan, guna tenaga, modal, penswastan dan kecairan). Keputusan kajian lapangan menunjukkan bahawa pengurus dan pekerja bersetuju dengan program penswastan dan penswastan di Libya menghadapi kesulitan yang kecil. Keputusan analisis perbandingan min menunjukkan perbezaan yang signifikan antara nilai min pra-penswastan dan pasca-penswastan. Nilai min bagi tingkat keuntungan, kecekapan operasi, modal, struktur pemilikan, produktiviti semasa pasca-penswastan adalah lebih tinggi daripada pra-penswastan. Nilai min guna tenaga semasa pasca-penswastan adalah lebih rendah daripada pra-penswastan. Keputusan analisis menunjukkan bahawa penswastan dan guna tenaga mempunyai kesan positif yang signifikan terhadap keberkesanan operasi dan tingkat keuntungan firma yang diswastakan; struktur pemilikan meningkatkan kecekapan firma yang diswastakan, tetapi tidak memberi kesan ke atas tingkat keuntungan; dan kecairan tidak memberi kesan yang signifikan secara statistik ke atas kecekapan operasi dan tingkat keuntungan firma yang diswastakan. Program penswastan di Libya telah meningkatkan prestasi dan keadaan kerja firma yang diswastakan.

Kata Kunci: penswastan dan Prestasi.

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LIST OF ABBREVIATIONS

AMF	Arab Monetary Fund
ADO	Arab Development Organization
AERC	African Economic Research Consortium
BA	British Airways
BOD	Board of Directors
CBL	Central Bank of Libya
CIA	Central Intelligence Agency
CDSA	Convention for a Democratic South Africa
DEA	Data Envelopment Analysis
DMF	Domestic Manufacturing Fund
EMP	Employment
ESOP	Employee Stock Ownership Plans
FEM	Fixed Effect Model
LIQ	Liquidity
LIS	Libyan Industrial Sector
LD	Libyan Dinar
GBOT	General Board of Ownership Transfer
GPC	General People Congress
GOL	Government of Libya
GDP	Gross Domestic Product
IMF	International Monetary Fund
LISC	Libyan Iron and Steel Company
MNR	Meggison, Nash and Randenborgh
OECD	Organization for Economic Cooperation and Development
OPE	Operating Efficiency
OWS	Ownership
PAS	Production Affairs of the State
PFT	Profitability
PRI	Privatization
PRO	Productivity
REM	Random Effect Model
SCPI	Standard Consumer Price Index
SOEs	State Owned Enterprises
SPSS	Statistical Package for the Social Sciences
SIP	Share Issue Privatization
UK	United Kingdom
UN	United Nation
USA	United States of America
USD	US Dollar
WB	World Bank
WDO	World Development Organization
WTO	World Trade Organization

CHAPTER ONE

INTRODUCTION

1.0 INTRODUCTION

This chapter introduces the research agenda of this study. It outlines the background of the study, statement of problem, research questions, research objectives, significant of the study, scope of the study and organization of the remaining chapters.

1.1 BACKGROUND OF THE STUDY

Libya occupies a total area of about 1,759,540 km² of the North African continent, dispersal from the Mediterranean Sea in the north to the borders of the Republics of Chad and Niger in the south, and the Egyptian border and the Sudan in the east to the borders of Tunisia and Algeria in the west. According to Central Intelligence Agency (CIA), based on the census on Jun 2013, the total population of Libya is 6,002,347 people; the annual growth rate of population is around 4.5 percent, one of the highest population growth rates in the world (CIA, 2013).

The Libyan economy is heavily dependent on the hydrocarbon industry, which, according to the International Monetary Fund (IMF), accounted for over 95 percent of export earnings; an estimated 85-90 percent of fiscal revenues; and over 70

percent of the country's Gross Domestic Product (GDP) in 2008 (Khaled, *et al.*, 2010).

It means that Libya's economy is heavily dependent on revenues from natural resources with an oil sector that provides nearly all of its export earnings and constitutes more than two-thirds of GDP. This lack of diversification, however, means that its economic growth depends on the international oil market. Due to economic progress, the World Bank (WB) classifies Libya as an upper middle-income developing country. Its economy is dominated by the oil and gas industries, through which it has been, transformed from a poor, largely agricultural economy in the early 1960s to one of Africa's wealthiest (Abidar & Laytimi, 2005). It has the highest income per capita of the developing countries in the Mediterranean region (Table 1.1).

Table 1.1
Per Capita Incomes in Mediterranean Developing Countries

COUNTRY	GDP per capita (PPP US\$)
Libya	10.335
Turkey	8.407
Tunisia	8.371
Algeria	7.062
Lebanon	5.584
Jordan	5.530
Morocco	4.555
Egypt	4.337
Syria	3.808

Source: Abidar and Laytimi, (2005).

Both public sector and private sector are important in the economic development of Libya, but the public sector is considered as the dominant sector in Libya. The main reason is it is responsible for expediting the development of the national economy;

Libya's development strategies have been characterized by the dominance of the public sector as the major agent of growth. Meanwhile, the private sector was relegated to a subsidiary role mainly with regard to agriculture and small services.

In regard to public sector, it can be classified into two categories, pure public agency and state owned enterprises (SOEs). Pure public agency is responsible in performing the administrative matters. Meanwhile, SOEs run the specific business for the sake of the Libya government. In particular, the performance of the public sector is affected by multiple shortcomings due to lack of administrative, organizational and, training efficiencies in this sector. In addition, the limitation of funds for development also contributes to such shortcomings and the large number of workers without the right skills. There is no dispute that this unemployed energy represents a waste of a part of the society's resources, which is supposed to be directed and exploited in full for the economic and social development purposes.

SOEs also are not able to perform their activities to achieve high profit to the government due to low performance, low productivity and inefficiency. In addition, Libya has encountered the throes of major changes, which will result from economic reforms and a shift in government's approach to development. However, despite vast hydrocarbons resources, the country faces great challenges, which the government needs to address. Therefore, the Libyan government has decided to privatize SOEs.

Privatization, in particular, is a way of economic reformation and transformation. It is expected to improve the Libyan economy's competence capacity through increasing the role of privatization on the public enterprises performance in

implementation of economic development process. Libya, like many developing countries, has tried to implement a privatization programme to overcome the problems of public enterprises sector such as lack of incentives (e.g., completion) and control mechanisms (e.g., communications/reporting systems). The most important goal is to increase the performance of Libyan firms to facilitate the role of the private sector to stimulate economic growth and therefore be able to increase the prosperity of the whole community (Moneer, 2005).

Many countries either less developed or developed countries adapted the privatization programme to reform their economies, but there is an apparent and clear difference between the privatization programmes in these countries. The differences are due to some factors and motives. Different in the motive with regard to selling of the public investments in the industrial countries from those in the less advanced countries. In the industrial countries, this motive comes in the form of search for projects management of efficient administrators to release the best use of the resources.

However the main aim of the privatization in the developed countries is to dispose of the losing projects where such projects are heavily burdened with complete set of state owned projects, which are poor in quality and efficiency, which result in exhaustion of the resources and requirements. That is looking at the sale of the public investments as a way of reducing those burdens, and difference in the political and economic environment in those two groups of countries to a large extent with regard to legal system and the restrictions imposed on prices production inputs.

In comparison to the developed nations, the developing nations are experiencing a more difficult reform path that seems to be largely unsuccessful. This is because many of the developing nations do not possess effective institutional and corporate governance structures and their laws that govern ownership rights are lacking. In addition, although privatization is much needed in such countries, there is the notable lack of qualified executives who are capable of overseeing the reform process, which adds to the challenge of bringing about the privatization process (Zahra, 2000).

Moreover, owing to the lack of budgetary resources to facilitate contingent liabilities of the firms, privatization is elusive. Added to this, according to Karatas (2001), the lack of transparency in laying down the SOEs market value prior to sale and the drawing up of certain deals could add to privatization failure. Moreover, local opinion may have been exacerbating things further in that the locals may perceive privatization as loss of resources to foreigners and loss of independence because of the considerable involvement of the donor agencies in the implementation of institutional structures for privatization in many African nations (Kayizzi-Mugerwa, 2002).

The policy of privatization, however, and what it means for the state to refrain from ownership and management of economic projects have raised a broad and comprehensive effect and dispute. Libya is among those countries, which have faced such difficulties, especially at the beginning of privatization programme. However, the global trend and the successful attempts of some privatized projects in most of world states left a strong trend which cannot be resisted any more, nevertheless, useless to stand in its way, even impossible to stop it, but otherwise, it is better to

find the right path to benefit from it and from the successful trials in this trend. This is more fruitful and useful for some Arab and foreign countries which their economic environments have some similarities.

In consideration of those events and causes, Libya started to think seriously to solve the economic problems. As a result, privatization policy in Libya has been implemented since 2003 in accordance with the law No. 198/1430 (2000) which was discussed by the General People's Committee. For implementing this policy, General Board of Transfer of Public Companies (GBOT) had been established in the same year. Libya worked to explore the effect of the privatization program on the firm performance, and requirements for success, is not intended to the vital task of repeat of the experience that has been in some industrial enterprises before, which failed to secure its performance, and did not follow the policies supportive, which led to the deterioration of institutions and drop the efficiency of production and productivity.

The government of Libya focused more on the Libyan Industrial Sector (LIS) in an attempt to improve diversification through expansion of non-oil products after 1969. The government also attempted to achieve food self-reliance and self-sufficiency. In addition the government gave the LIS top priority and a significant budget in order to contribute to regional development and job creation. A total of LD6 billion (\$4.91billion) was allocated to the LIS for the years spanning 1970-2005 and actual LD4 billion (\$3.27 billion) was spent on it. In 2005, the LIS comprising 360 companies categorized into seven types divided under three categories of ownerships (Ministry of Electricity, Industry and Minerals, 2006). Libyan public companies refer to those in which the state represented by the LIS, is the owner of their capital while

joint-venture companies refer to those in which the state has a share in the ownership along with private/public partners. On the other hand, privatized companies refer to small-scale companies with the inclusion of ex-state owned companies (Shareia, 2006). An overview of the different types of companies is presented in Table 1.2.

Table 1.2
The Libyan Industrial Companies

Projects	Public project	Joint-venture	Privatized project	Total
Food projects	17	35	22	74
Textile, weaving, furniture and paper projects	17	10	91	118
Leather projects	13	11	-	24
Chemical projects	14	25	11	50
Metal works projects	3	-	-	3
Engineering and electronic projects	22	18	28	68
Cement and house building projects	11	6	6	23
Total	97	105	158	360

Source: The Ministry of Industry, Electricity, and Minerals, (2006).

The LIS hired 1721 employees in 2001 which approximately 11.80 percent of the aggregate labor force (IMF, 2006). Although the LIS received significant investments, its contribution to the country's GDP remained under 8 percent in the 1970s and even dropped to 5.9 percent in 2000. A further decrease was noted in 2002 3.2 percent (Shareia, 2006). Aqadhafi (2002) contended that the actual production capacity in 17 out of 250 companies went over 60 percent their design capacity, while the remaining 233 companies ranged from 9-59 percent. The achieved production capacity in comparison to the design capacity in the context of public industrial companies is presented in Table 1.3.

Table 1.3
Realized Production Capacity of Some Public Industrial Companies

Company	Achieved Capacity (percent)
1.Light industries	
Fruit Company, Aljable Alakdr	13
Tomato Paste Company, Sebha	0
Fruit Company, Derj	1
Dates Company, Hoon	26
Al-Nahda Agriculture Company, Zawia	10
Vegetable and Fruit Company, Zawia	24
Date Syrup Company, Khoms	28
Olive Oil extraction and Refining Company, Isbea	4
Tin Cans Company, Zawia	75
Flour Mill, Tobruk	0
Automatic Bakery, Tripoli	8
Automatic Bakery, Misurata	6
Wall Tiles Company, Gherian	28
Plane/Flat glass Company	29
Clothes Company, Derna	27
Carton Boxes Company, Nasseria	27
Plastics Company, Benghazi	23
Plastics Company, Beida	21
Gases Company, Tripoli	12
Red-Brick Company, Sawani	26
Al-Amal Washing Machines Company, Tripoli	2
Refrigerator Company, Rujban	0
2.Strategic Industries	
Cement Company	0
Gypsum Company, Sawani	22
Metal Workers Company, Tripoli	12
Lime Company, Suk El-khamis	19
Filter Company, Tripoli	5
Lime Company, Benghazi	10
Red-Brick company, Benghazi	5
Cement Moulds Company, Benghazi	14
Textile National Company	60
Furniture Public Company	60
Trailer Manufacturing Nation Company	54
Company for Soap and Cleansing Materials	33
Aman Company for Tyres and Batteries	33
General Company for Pipes	33
Arab Company for Manufacturing and Bottling	28
National Company for Foodstuffs	24
General Company for Paper	20
General Company for Plastic and Artificial Sponge	12
Libyan Company for Tractors	5

Source: Alqadhafi, (2002).

Alqadhafi (2002) further contended that the actual production capacity in 11 out of 31 most important industrial projects ranged between 5-60 percent of their design capacity. The achieved production capacity in terms of design capacity in the most significant industrial projects measured throughout a three-month period is shown in Table 1.4.

Table 1.4
Realized Production Capacity In The Most Important Public Industrial Companies

Industrial Projects	Achieved Capacity (percent)
Textile National Company	60
Furniture Public Company	60
Trailer National Industrial Company	54
National Company for Soap and Cleaning Materials	33
Alaman Company for Tyres and Batteries	33
General Company for Pipes	33
Arab Company for Manufacturing and Bottling	28
National Food Company	24
General Company for Paper	20
General Company for Plastic and Artificial Sponge	12
Libyan Company for Tractors	5

Source: Alqadhafi, (2002).

Additionally, not unlike other sectors, the LIS has been facing many challenges since the 1990s. For instance, it experienced a decrease in the state subsidies owing to the drop in the oil income. It was also subjected to many changes and by 2000, the Ministry closed down and its authority was shifted to the Production Affairs of the State (PAS) which was also later abolished in 2004. This was followed by the establishment of the Ministry of Industry and its merger with the Ministry of

Electricity and Minerals. As a result of these experienced changes, instability in the administration was noted to overlap between authority and responsibility (MEIM, 2006). A sharp increase in the cost of public projects inputs occurred owing to the instantaneous exchange rate unification (Ministry of Economy and Trade, 2006). Specifically, January 2002 marked the unification of the rate of exchange at LD1= \$0.608 in comparison to the special rate of LD1= \$0.36 that had been in existence since February 1999 (IMF, 2003).

Following thirty years of excessive dependence on the public sector, the Libyan government was dissatisfied with its performance and acknowledged that the inefficiency related with this sector was more significant than expected, which was reflected in the interposition made by Colonel Alqadhafi at the General People Congress (GPC) in Sirte in January 2000, where he stated that the system is finished and that he had to interfere to stop the operation from continuing ineffectively. Moreover, Alqadhafi accused GPC members of voluntarily spending the country's resources indiscriminately, stating that they are holding on to outdated methods in order to justify oil wastage (Otman & Karlberg, 2007). It was evident that the Libyan nationalized and centralized government system had failed to achieve economic goals.

In the period from 1999-2001, majority of the public industrial projects were deemed overstaffed, ill-equipped with outdated machinery and possessed an unstable management. The level of operation throughout the public industrial sector remained under 42 percent Majority of the companies were loss-makers as opposed to profit-makers, because they suffered from high inventories. On the basis of the financial

and technical status, 30 of the large industrial companies, were categorized into three; the first group comprised of 18 companies with good financial status. Table 1.5 shows that.

Table 1.5
Strategic Public Industrial Companies

Company	Capital	Profit (loss)	Debt	Net Fixed Asset
Electronic Public Company	24.00	16.06	4.36	24.00
National Public Company for Beverage	650.00	18.29	0	10.19
Furniture Public Company	44.02	26.03	15.03	11.00
Pipes Public Company	44.98	13.60	13.65	13.00
Flour Mills and Fodder Company	85.96	12.23	48.66	70.00
Wires and Electricity Tools Company	32.70	5.83	4.79	12.35
Public Company for Chemical Products	191.00	(7.22)	5.66	65.00
Alaman Company for Tyres	57.12	(4.87)	12.24	20.00
Electricity Equipment Company	11.27	37.42	23.22	6.00
Alarabiya Company for Beverage	7.41	8.31	13.49	17.000
Alarabiya Company for Cement	172.46	(7.81)	94.14	92.452
Tobacco Public Company	36.00	(983)	32.27	11.742
Libyan Company for Iron and Steel	1.25	(123.06)	85.77	879.45
Trucks and Buses Company	87.00	(13.63)	185.16	111.50
Scrap Public Company	10.00	(867)	3.31	4.53
Plastics \ Industrial Sponge Company	48.51	228	29.71	3.00
National Company for Waste Pipes	4.50	408	5.82	2.84
National Company for Trailer	7.60	(595)	9.65	5.39

Source: Alqadhafi, (2002).

These companies were recommended to be retained within the public sector as they were considered strategic and their products were considered to be important for the economic development.

The second group comprised five companies that had faltering development and showed modest profit, huge debts and lack of cash. Table 1.6 shows that these companies, privatization was recommended.

Table 1.6
Second Group of Public Industrial Companies

Company	Capital	Profit (loss)	Debt	Net Fixed Asset
Textile National Company	1.500	22.024	11.576	N.A
Spinning and Weaving National Company	113.594	(5.812)	30.911	20.000
Alarabiya Company	136.495	(22.765)	16.423	100.00
Cement Libyan Company	153.500	(24.790)	27.424	N.A.
Tractors Libyan Company	7.500	(4.003)	2.913	N.A.

Source: Alqadhafi, (2002).

Meanwhile, the final group comprised 7 bankrupt companies that failed to achieve their targets and were making losses. These companies also reflected significant debts and outdated technology along with overstaffing. Table 1.7 shows these companies were recommended to be liquidated and their branches were to be privatized.

Table 1.7
Third Group of Public Industrial Companies

Company	Capital	Profit (loss)	Debt	Net Fixed Asset
Al Mamura Food Company	49.029	(18.620)	7.401	1.000
National Development Company	15.946	(7.760)	71.553	4.000
National Company for Animal Feed	68.294	(50.931)	50.672	9.000
Libyan Company for Building Equipment	740	(959)	18.805	2.000
Public Company for Leather Products	38.000	(7.517)	61.231	9.500
National Food Company	7.962	(11.766)	9.906	2.000
National Company for Soap and Washing Equipment	14.218	(2.133)	28.830	8.000

Source: Alqadhafi, (2002).

The Libyan government turned to privatization as a policy to correct errors in the public sector from where there is a shift in the Libyan economy—public ownership and experience led to efficiency and productivity reduction and multiple issues. This considerable privatization was focused on 360 companies including 204 industrial firms, 56 agricultural firms, 82 livestock firms, and 18 marine firms. Table 1.8 shows that.

Table 1.8
The Scope And Sectors Involved In The Third Wave of Privatization

Stages	First stage	Second stage	Third stage	Total
Industrial companies	145	41	18	204
Agricultural companies	28	4	24	56
Livestock companies	71	0	11	82
Marine companies	16	1	1	18
Total	260	46	54	360

Source: Alqadhafi, (2002).

Privatization was employed based on an interlocking time schedule across three phases from 2004-2008. In the first phase, 260 public companies were targeted to be privatized from 2004-2005. This is followed by the second phase where 46 medium companies were to be privatized through public bidding (Sharika Musahima) from 2004-2007. The final phase included the privatization of 54 large strategic companies from 2004-2006 (Aldroish *et al.*, 2005). Because of the large investments in the above companies, they were confined to special bidding at the onset for holding investment companies and foreign investors. Some shares in these companies should have been transferred to residents from 2007-2008 as according to the Wealth Distribution Plans (WDP). Further, the first phase was divided into three (Aldroish *et al.*, 2005). The first group of the phase included the privatization of 191 companies through employee buy-outs (Tashrukiya) and special bidding (Sharika Musahima). The second group of the first phase included 58 main companies while the third group comprised 11 companies. The companies of the latter groups were going to be liquidated through bankruptcy proceedings owing to their significant external debts and their use of outdated technologies. An overview of the above explanation is provided in Table 1.9.

Table 1.9
The First Stage of The Third Wave of Privatization, 2004-2005

Stages	Industrial Companies	Agricultural Companies	Livestock Companies	Marine Companies	Total
A	95	22	59	15	191
B	40	5	12	1	58
C	10	1	N.A.	N.A.	11
Total	145	28	71	16	260

Source: Alqadhafi, (2000).

The first phase of privatization was addressed in the new legislations generally for economic reforms and particularly for the privatization programme. These legislations addressed market liberalization, competition and other institutional issues. Reductions of tariff were included in the Pan-Arab Free Trade Agreement and various trade agreements entered into with the European Union (EU). The average rate of tariff was decreased from 21.8 percent in 2003 (rates ranging between 0-425 percent) to 17.8 percent in 2004 (a maximum rate of 100 percent), (IMF, 2007). The new tariff rate has only two rates, 10 percent for tobacco products and zero percent for the rest but imported goods are allocated a four percent service fee (IMF, 2006). A reduction in the dispersion of tariffs in the categories of products was also noted.

Moreover, requirements for trade certification with Maghreb countries including Libya, Tunisia, Algeria, Morocco and Mauritania were summarized. The trade regime was further summarized in 2006 by decreasing the tax rate consumption on imported goods from 15-25 percent with the aim of making foreign investments and capitals enter the country easier. Restrictions on external trade were made considerably made lenient through downsizing of the list of prohibited imports from 40 to 10 items; items that were prohibited under reasons of religion and health. Furthermore, the floor on foreign direct investments in the non-oil sector decreased from \$50 million to \$1.5 million (IMF, 2007).

In an attempt to attract private investors, Libya deregulated their production, prices, wages and its national currency's exchange rate. The privatized companies were excluded from the payment of consumption taxes in terms of operating equipment, spare parts and raw materials for a span of five years. They were also excluded from

the payment of income and production taxes in the hopes of encouraging the involvement of private investors in the process of privatization (Alfajori, 2004). In addition to this, the government also arranged with domestic banks to provide the firms with subsidized loans at three percent per annum (Otman & Karlberg, 2007).

The government issued resolution No. 100/2004 in April 2004, giving permission to the GBOT to transfer the ownership of 126 public companies to the private sector at initial fixed prices as highlighted in the resolution. The resolution also included details and established a series of conditions, which had to be satisfied prior to the firm's privatization. GBOT was required to establish supervisory committees for every targeted company to monitor its privatization programme. It should also establish committees for the companies to acquire their final market value and employ a legal editor to declare its new privatization status. The target company shares should be offered, in whole or in part, to its employees and if they refuse to take up the offer, then the shares could be offered to the public. In order to obtain shares in the company that was targeted for privatization, employees could withdraw and utilize the accumulated 1.5 percent salary contribution, which was mandatory according to law No. 1/1986 for shares payment.

Employees can also make use of their unpaid salaries, wages, or vacation salaries to obtain company shares. They have the right to keep what they wanted from the current assets including spare parts and raw materials and to own real estate and land. A specific albeit flexible time period was offered for buying company ownership ranging from 5-8 years. In situations where the employees accept the offer, their cooperation with legal editors is required to create a new company established to take

over the old one. Employees who refuse to buy their company shares are offered a combination of options including self-employment program, transfer to other government agencies and benefits of early retirement. Furthermore, it is important for established committees to conduct stock taking activities to assist GBOT to determine the final market value of the firm to be privatized and the issue of surplus workers has to be handled before privatization is realized.

The business environment can be enhanced through the revision of the existing investment laws that govern the country's economic activities. Accordingly, in Libya, changes have been undergone in the administrative procedures including the opening of 51 offices throughout the country for the simplification of the procedures of business application. More importantly, a single stop window and a month application approval limit have been set for administration to relay their refusal via a notary public. The aim is to enable and motivate the creation of businesses (IMF, 2006/136). Meanwhile, the Stat's import monopolies were minimized to only petroleum products and weaponry where the goal was for the private sector to autonomously import and generate goods that were under the control of the state (IMF, 2007).

However, the aim behind GBOT is to create an entity that can propose which public companies should be privatized and how the company's restructuring should be carried out. GBOT is also responsible for the supervision of public firms following their privatization for their facilitation in various areas.

Along with the above measures to liberate markets and to maximize competition of players, the Libyan government passed legislation for the creation of new institutional infrastructure and for the stimulation of market exchanges. In addition to this, it also established the Domestic Manufacturing Fund (DMF) to provide funds for the restructuring of activities for public companies preparation for privatization. DMF also ensures short-term loans to assist privatized companies. The Libyan Government established the Libyan Stock Market Exchange, the board in order to liquidate public firms and the fund to support exports.

The government of Libya, in their quest to implement the privatization programme and as a requirement of the economic system transformation, also attempts at improving and promoting economic efficiency. The government has redefined the roles of both sectors (Public and private), boosted non-oil sector and extended the production and export bases through the privatization policy.

1.2 PROBLEM STATEMENT

The 1970s witnessed a huge increase in the number of public sector companies that existed in all economic areas. This policy was initiated a strategy adopted by most developing countries in 1960s, mainly based on the complete reliance on the public sector for development process.

However, the public sector is an essential element in the development of the national economy. It is, in fact, responsible for the greatest part in economic and social development in the country. It is the main source of several basic products and/or

industries such as steel and iron, aluminum, metal, engineering and chemical industries. In addition, the public sector plays a vital and essential role in alleviating the suffering of the people through making available of the necessary commodities and/or goods with proper prices and in particular with respect to food security, clothes and medicine.

Libya, like many developing countries, in its development strategy has been characterized by the dominance of the public sector as the major agent of growth, but the private sector was relegated to a subsidiary role mainly with regard to agriculture and small services. Economic performance is mainly driven by the oil sector, while production in the non-oil sector has been evolving at a relatively weaker pace.

After three decades of excessive reliance on the public sector, the government became dissatisfied with the performance of the public sector and learned that the inefficiency associated with the public sector was higher than expected. This was clear evidence in the interposition made by Libyan President at the General People Congress (GPC, parliament) in January 2000, “The system is finished. I have to step in today to stop this wheel from spinning in a rut and wasting fuel”. Further, he accused members of the GP Congress of deliberately wasting the country's resources, saying “you are holding onto obsolete methods in order to justify wasting oil” (Otman & Karlberg, 2007).

The Libyan government seems to have accepted the view of economic efficiency of the private sector over the public sector. After evidence revealed that a variety of solutions to the problem of managing the public sector failed to produce an

improvement in the performance of the public sector companies. As Libyan President stated “this system has failed the same as happened in the former Soviet Union and Eastern Europe because it depended on unqualified workers who do not care about their country’s interests. The economy has no place for sentiments, niceties and therefore, this sector has to be reviewed as there is no one who understands it in Libya (Arabic News, 2003).

Even though, the Government of Libya (GOL) has implemented the privatization programme, the national phenomena of lower production levels of SOEs, in addition to higher production costs, lower quality of products are considered as inevitable results of misuse of economic resources on the one hand, and bureaucracy and administrative corruption on other hand.

During 2001-2002, following the speech by Colonel Algathafi at the GP Congress in Sirte in January 2000, the Libyan government created a number of evaluation committees to examine the public industrial projects in particular for 1999-2001. The conclusions of the committees can be briefly summarized that the most of the public industrial projects during the 1999-2003 period, were overstaffed, equipped with old machinery, and suffered from a lack of stable management. The operation level across the public industrial 19 sector did not exceed 42 percent. Most of the companies were loss-makers as they were suffering from high inventories. According to the financial and technical status, 12 companies that failed to realize their targets and were loss-making. Table 1.10 shows the low performance of some public industrial companies that.

Table 1.10
Low performance of Some Public Industrial Companies

Company	Capital	Profit (loss)	Debt	Net Fixed Asset
Textile National Company	1.500	22.024	11.576	N.A
Spinning and Weaving Company	113.594	(5.812)	30.911	20.000
Alarabiya Company	136.495	(22.765)	16.423	100.00
Cement Libyan Company	153.500	(24.790)	27.424	N.A.
Tractors Libyan Company	7.500	(4.003)	2.913	N.A.
Al Mamura Food Company	49.029	(18.620)	7.401	1.000
National Development Company	15.946	(7.760)	71.553	4.000
National Company for Animal Feed	68.294	(50.931)	50.672	9.000
Building Equipment Company	740	(959)	18.805	2.000
Leather Products Company	38.000	(7.517)	61.231	9.500
National Food Company	7.962	(11.766)	9.906	2.000
National Company for Soap	14.218	(2.133)	28.830	8.000

Source: Alqadhafi, (2002).

These companies had large debts and old technology and were overstaffed and recommended that these companies be liquidated and their branches privatized.

Despite all the advantages and facilities offered by a state to individuals, but the dominance of central or misuse of economic resources to make many of the cases of economic activity in Libya represented in the form of public sector suffers from serious problems such as low levels of efficiency and productivity in public enterprises, lack of administrative, organizational and training efficiency – limitation of financial surplus. In addition, the latest report by Global Competitiveness Report, Libyan economic performance was ranked 91 out of 134 countries. Its economic performance was assessed as excellent in the macro-economy, health and primary

education, but poor to average in institutions, infrastructure, technological readiness, business sophistication, innovation and marketing efficiency (Porter & Schwab, 2009). These phenomena represent indicators of default in the economic administration, which can only be eliminated by radical reform of such management. For example, it is noted from the report of the People's Board for follow-up 1990, there were high production costs of some of SOEs those pertaining to the strategic industries sector such as Trucks Co., Abu Kammash Complex and National Smelting Co. Furthermore, most of the SOE's Industrial Companies suffer from many problems which were reflected directly or indirectly on their lower performance.

Firstly, the industrial sector in which the investments allocated for it exceeded LD 4.315 million, including more than 250 companies and employs more than 47,000 workers; it is noted that excluding 17 locally manufactured commodities achieving production exceeding 60 percent of maximum capacity of the producing companies thereto, the production rates in other industries ranged between 9-30 percent of the maximum capacities. Also, lower rates occurred in the production quantities realized in certain products of strategic industries.

Table 1.11 revealed data of production capacities utilization in the SOE's industrial Companies whose actual productive capacities did not exceed 30 percent of maximum capacity in 2000.

Table 1.11
Production Capacity of SOE's Industrial Companies

Company	Achieved Production / Maximum Capacity (Percent)
Tomato Paste Company	0
Al-Nahda Agriculture Company	10
Vegetable and Fruit Company	24
Date Syrup Company	28
Olive Oil Company	4
Automatic Bakery Company	8
Wall Tiles Company	28
Clothes Company	27
Plastics Company	23
Plastics Company	21
Gases Company	12
Red-brick Company	26
Refrigerator Company	0
Metal Workers Company	12
Lime Company	19
Filter Company	5
Lime Company	10
Red-Brick Company	5
Cement Moulds Company	14
National Company for foodstuffs	24
General Company for Paper	20
Plastic and Artificial Sponge Company	12
Libyan Company for Tractors	5

Source: The People's Board for follow-up, Annual Report submitted to the People's conferences in their second ordinary session for 1999.

There is an arbitrary selection of locations of certain companies and unobservant of co-ordination between them in terms of specialization and lack of environmental compatibility of such projects.

Secondly, the oil sector itself, despite the possibilities it enjoys, was not shielded from the problems encountered by other sectors as a result of improper management and its centralized and bureaucratic nature. The number of faulty rigs was about (14) at a rate of 41 percent of the total number of (34) operating rigs. This situation in oil companies has its adverse effects on the exploration and production activities within the sector.

In general, it is noted that there is a lack of integrated planning for specifying the need of the national economy for companies and productive units for the industries sector during developments and extensions of the existing companies or in the construction of new companies. All that is noted trinities in this sector.

Despite the lower production rate progressively in some companies and economic establishment, and keeping the number of workers there in unchanged or increasing it in certain cases, is considered an adequate indicator for lower productivity of labor as an economic resource. However, it is noteworthy that certain studies conducted on certain companies indicated lower labor productivity level from one year to another. Regardless, the shares of producers \ workers and their salaries remained fixed and were not affected by lower productivity level. This is a clear example of low performance of companies.

Alqadhafi (2002), stated that the public sector in Libya suffer from weak control. The control as a management task is not less in important than the planning, supervision task or other management functions. Thus, it is considered as a means of avoiding problems and bottlenecks, which may occur during production or provision of commodity or services. Hence, control is considered as an important means of avoiding increase in production costs by ensuring the task for achieving production plans in the manner envisaged thereto.

To indicate the phenomenon of weak control in the public sector establishments, we give some examples mentioned in (Ministry of Economic and Trade, 2006). It is noted, for instance, that in the Arab Cement Co., the Management Committee for the Company lacks control over running and control of work in the factories, and absence of coordination between the production units, especially with respect to purchase operations from abroad, in addition to lack of discipline among the employees of the Company, thus resulting in, and for other reasons, stopping production in certain factories. Moreover, according to (Ministry of Economy and Trade, 2006) low quality products from industrial products was not in conformity with the approved standard specifications in the production units and lack of necessary analysis. Therefore, as a result of the liberalization of the economy many Libyan industrial products were unable to compete with international products, even at the local market (Abusneina *et al.*, 2003).

In the past twenty years, several countries have successfully adopted privatization programs and consequently, a significant body of literature has been dedicated to the impacts of privatization on the performance of the firm in developing nations.

However, many enterprises, public and SOEs have been privatized due to the experience of other countries that gain positive results over privatization. Libya has also embarked on privatization programme for the SOEs, in the hope that the enterprises might be restructured into more efficient, profitable, competent, and value-creating private enterprises. To date, there is no work done to assess the post-privatization performance of these enterprises in Libya. Also there is lack of sufficient studies on the performance of the privatized enterprises. Abstracting this deficiency, this study intends to bridge the research gap by assessing the firm efficiency, labor market, and fiscal impact of the privatization program in Libya and contributes to literature in the following three pertinent ways;

First, the study provides an overall privatization picture and analyzes the impact of privatization on the performance of the firms with the help of data obtained from the industry companies in Libya. Second, the research analysis conducted examined the privatization impacts and further explored the way privatization functions in Libya. It answers the questions of whether the changing objectives stem from private ownership or the competitive environment changes lead to efficiency gains. The answers to these questions provide novel insights into both researchers and Libyan policy makers when they analysis or design privatization programmes. Finally, this field of study is of utmost significance in Libya, particularly as it reflects new ideas and content enabling the provision of recommendations to policies for Libya's long-term privatization plans. Accordingly, this study focuses on the main factors influencing the Libyan firms' performance following privatization.

In sum, the research problem lies in the fact that privatization may be the right exit into correction of the defect in existence in public sector from where there is a transfer into the Libyan economy, where public ownership experience has proven to cause a reduction in performance as well as other multiple problems. Privatization entails change in ownership as well as the emergence of competitive powers. Hence, This study attempts to understand the various aspects of privatization in general and argue that the private-public ownership factor should be differentiated from other factors that also influence the effect of privatization on firms performance of Libya in particular, thereof and its effect on the future of the Libyan economy.

In view of this fact, this study informs policy makers and the public at large about the real picture of the Libyan Privatization by assessing the effect of privatization on the financial performance of SOEs and the firms. The study also makes the concerned bodies alert about privatization. By doing so, this research is believed to shed some light on the future trend of the enterprises

The analyses of this study will provide an evaluation of the effects of privatization on the performance of firms that are located in all of the different states and operate at different types of industrial company. It also gives some recommendations on how Libyan states can derive the greatest benefits from privatization.

1.3 RESEARCH QUESTIONS

- i. How privatization effectively works in the industrial companies in Libya?

- ii. Is it the changing objectives due to private ownership that causes possible effectiveness efficiency gains?
- iii. What are the main obstacles that hinders the privatization programme in Libya?

1.4 RESEARCH OBJECTIVES

The general objective of this study is to investigate the impact of the privatization on the firm performance. The specific objectives of the study are as follow:

- i. to explore effectiveness of privatization program in the industrial companies.
- ii. to evaluate the privatization effects on the firm performance in the industrial companies.
- iii. to identify the important obstacles that hinders the privatization programme.

1.5 SIGNIFICANT OF THE STUDY

The SOEs has over time been a big and important issue in the growth and development of the economy. After decades of poor performance and inefficient operations by state-owned enterprises, governments all over the world earnestly embraced privatization. Thousands of state-owned enterprises have been turned over to the private sector in Africa, Asia, Latin America, and Eastern and Western Europe. This trend was spurred by the well-documented poor performance and failures of SOEs and the efficiency improvements after privatization around the world (Chong *et al.*, 2004).

Privatization began in Germany in 1961 with the German Government's sale of its majority stake in Volkswagen but was popularized in Britain by the Margaret Thatcher government in the 1980s with the successful privatization of British Telecom. It then spread through the rest of Europe to Japan, the rest of Asia, Latin America, Africa and the former Soviet-bloc of countries Central and Eastern Europe were the last to adopt it (Megginson & Netter, 2001). In the 1990s, global Privatization proceeds amounted to US \$145 billion with Latin America and the Caribbean contributing the most to the proceeds (Kikeri & Nellis, 2002).

Privatization has since been perceived as a tool to improve Public Enterprise performance and reduce the budgetary burden caused by their inefficiencies. Privatization is necessary not simply to improve the performance of Public Enterprises but its essential contributions are to consolidate gains achieved in reforming Public Enterprises, to distance the firm from the political process and inoculate it from interference by owners who have more than profit on their minds.

In addition, privatization has been an interesting issue in almost all developed and developing countries; it has become a central feature of the economic policies of nations in the countries. Experience, however, has witnessed that the effectiveness of privatization all over the world has been a mixed blessing or is inconclusive. Moreover Private sector is now being considered by most countries around the world as a viable alternative to government in its traditional role as a provider and/or producer of public goods and services.

One of the most significant economic phenomena of recent years has been the privatization of SOEs all over the world. According to Megginson and Netter (1998), the amount raised by all governments during the last two decades, considering only public offers, is over \$400 billion, a figure that would be considerably surpassed if direct sales were also taken into account.

Libyan government has adopted a privatization program for SOEs in order to restructure the enterprises into a more efficient, competent, profitable, and innovative and private enterprises that are capable of creating value. This study's findings contribute to literature concerning privatization, particularly the issues existing in the developing nations. Specifically, the findings concentrate on shedding an insight into the complex environment of Libya and highlight the impact of privatization in the post-privatization period in the country.

The findings also assist in providing the government and ministry with invaluable information concerning the impact of the programme on the industries performance on the whole, and to motivate the companies' efficiency and increased profits. Through the assessment of the post-privatization performance of these firms and through the identification of the challenges that they are facing can assist in providing an insight into the main policy lessons and commitments of the government and ministry in their industrial policy.

1.6 SCOPE OF THE STUDY

This study concentrates on the analysis of the effect of privatization on the firms' performance in Libya. 13 companies are studied in detail to understand the impact of the privatization on the firm's performance. The study focuses on privatization of the public industrial sector (PIS) because it was the first sector that was exposed to the privatization programme.

The data set for this study was obtained from Libyan firms that had been privatized in the industrial company sub and had at least four years of both pre- and post-privatization data.

1.7 ORGANIZATION OF THE STUDY

The study was divided into seven chapters. Chapter One provides the introduction of the study, it discussed the background of the subject, identifying problem statement, objectives of the study, research objectives, significance of the study and finally scope of the study.

Chapter Two includes the study of the economic performance of Libya, the problems of slackness of public projects and the attempts to reform such problems. Chapter Three provides the literature review of the research, which covers the theoretical aspects of the privatization, empirical evidence, and alternative theories of the privatization.

Chapter Four addressed the research methodology of this study it includes the introduction, research methods, theoretical framework, research strategy, data collection, study samples, and data of analysis. Chapter Five provides the discussion on the results of the analysis. It includes the study through the interpretation of data that delineates major issues related to the testing of the hypothesis, and Chapter Six contains the general summary of the findings, also the limitation and implications of the study, in addition the main recommendation that must be considered in this study is the basis for research in future studies and conclusion.

CHAPTER TWO

THE REALITY OF THE LIBYAN ECONOMY

AND ITS PROSPECTS

2.0 INTRODUCTION

This chapter introduces general information about Libya presented to describe Libya's image internationally, which necessitates an explanation of economic trends. The Chapter is organized as follows. Section 2.1 presents the economic background of Libya. Section 2.2 discusses the role of the public sector in the Libyan economy. A discussion of the slowdown in public projects is presented in Section 2.3. Section 2.4 presents the privatization and economic liberalization policies introduced in Libya, and, finally, Section 2. 5 presents the conclusions.

2.1 ECONOMIC BACKGROUND OF LIBYA

Before the discovery of oil, Libya was poor and underdeveloped. Libya's poverty was due largely to its historical lack of a viable agricultural base, because of its desert environment (Gheddafi, 1978). Libya's prospects seemed much discouraging. Cultivation was strictly limited to two physically separated coastal belts constituting less than 3 percent of the country's total land area.

The combined effects of out-dated agricultural techniques and the hostility of dry soil resulted in low productivity in agriculture. Opportunities for development of other economic activities were few and not very promising (Heitmann, 1969). Then, black gold in the form of oil emerged from the Libyan desert, which was exported to international markets from 1961 onwards. Libya has a large strategic reserve of oil, which, according to optimistic estimates, is 90 billion barrels (Wilkinson, 2004). Libya's reserves are the largest in Africa and among the top ten in the world. The oil boom that resulted from the discovery and export of oil helped public sector activity and provided the Libyan government with substantial financial resources. These resources allowed for the financing of large-scale projects that otherwise were sometimes not economically feasible (Higgins, 1959, cited in Gurney 1996).

After the revolution in 1969, Libya saw new investments, which clearly influenced the economic and social development of the country. Many business plans, which depended on the oil revenues to achieve sustainable economic development, were created to increase the capacity of key sectors such as agriculture and industry. These were serious attempts to diversify sources of national income in Libya, which would reduce dependence on oil as the country's main source of income.

Since 1970, Libya has created three development plans (1973-1975) (1976-1980) (1980-1985). The key objectives of these various plans were to expand the base of the Libyan economy by developing production structures of non-oil sectors such as basic industries, agriculture and electricity. These socio-economic development plans resulted in structural changes in the local economy in which the share of manufacturing in GDP rose from 5 percent in 1970 to about 15.1 percent in 2005.

The share of the agricultural sector increased from 6 percent in 1970 to 9 percent in 2005, real GDP increased sharply from \$4.380 millions in 1970 to \$44.820 millions in 2005.

According to Libyan state figures (2006), Libya has one of the highest average per capita GDPs in Africa. However, this figure is distorted because little of this income flows down to lower classes of society. The weakness in world hydrocarbon prices in 2009 reduced Libyan government tax income and constrained economic growth. Substantial revenues from the energy sector coupled with its small population resulted in Libya's GDP per capita increasing from \$14,593 to \$15,709 in 2008, which made Libya rise to number 57 in the world in GDP per capita (PPP) in US Dollars in 2008 (CBL, 2009). Non-oil manufacturing and construction sectors, which account for more than 20 percent of GDP, have expanded from processing mostly agricultural products to include the production of petrochemicals, iron, steel, and aluminium.

Libya imports about 75 percent of its food because unfavourable climate conditions and poor soils severely limit agricultural output. The proceeds from oil and gas exports have enabled the maintenance of a large public sector with extensive government investments in health, education, agriculture and non-oil related industries. Table 2.1 below shows the contributions of the various sectors to the economy. The oil sector provided about 70 percent of the GDP in 2007, having risen from 50 percent in 2002 reflecting rising oil prices. Whereas the share of other sectors conspicuously fell.

Table 2.1

Distribution of GDP At Current Prices of Libya, 2002-2007 (Percent)

	2002	2003	2004	2005	2006	2007
Oil sector	50.1	57.6	64.1	69.5	72.3	71.6
Agriculture, fishing, and forestry	4.3	3.6	2.8	2.2	2.0	2.0
Manufacturing	2.2	1.9	1.7	1.3	1.1	1.2
Electricity, gas, and water	2.2	2.0	1.5	1.3	1.2	1.1
Construction	6.4	4.8	4.5	4.0	3.9	4.3
Trade, hotels, and restaurants	5.7	4.9	4.4	3.9	3.4	3.4
Transportation, communication / storage	5.0	4.7	3.9	3.5	3.3	3.3
Financing/ insurance/ business services	1.7	1.5	1.3	1.0	1.0	1.0
Housing	12.5	10.0	8.0	6.3	5.6	5.2
Public services	9.9	9.0	07.7	6.8	6.2	6.8
Other services	0.1	0.1	0.1	0.1	0.1	0.1

Source: CBL, (2009).

2.2 THE ROLE OF THE PUBLIC SECTOR IN THE LIBYAN ECONOMY

In Libya, the public sector has controlled most economic activities, which is a characteristic of the economic situation of a country that has undergone a socialist transformation.

2.2.1 Public Sector and the Economic Trends

The emergence of the public sector control over the economy was a direct result of the Libyan revolution, which nationalized some private projects and constructed new projects to control the production and distribution of goods and services. Invariably the roles of the private sector were reduced. In the 1970s and early 1980s, a series of laws were enacted and a set of economic decisions were taken that gave the public sector complete control over all economic activities with exception of some simple

marginal activities. Under this legislation, the private sector was marginalized. Therefore, the major tasks in production and service were assigned to the public sector.

Public sector investments comprised about 85 percent of the total national investments recorded during the 1980s. The public sector also employed about 87 percent of the workers in the economy in 1980 (Shamia, 1999). In particular, the state not only invested in infrastructure sectors, but also entered directly into the agriculture sector, manufacturing, domestic trade (all stages) and foreign trade, restaurants and hotels, transport and storage, transportation and home ownership services, finance and insurance. The public sector covered the domestic supply of basic goods and services, and other activities, both large and small (Al-Sharif, 2002).

The public sector therefore became the main engine of the national economy, which witnessed the nationalization of banks and foreign institutions, and contributed to the creation of national companies. In general, the public sector provided all the needs of the community, The public sector is sometimes referred to as the state sector and is part of the state that deals with the production, delivery and allocation of goods and services by and for the government or its citizens, whether (national, regional) or (local, municipal) that is dominated by absolute control of the public sector.

Sanctions from the United Nations allowed limited economic openness in which private activity was permitted in certain fields such as trade and some light industries and fishing. Certain laws and decisions were issued in this respect such as law No. 9 for 1992 for practicing economic activity. However, this openness emerged in a

disrupted form, as monopolistic institutions supported by laws for maintaining their monopoly continued. The powers of certain institutions controlled many policies and decisions affecting the moral fibre of the economy.

2.2.2 The Main Problems of the Public Sector

Despite advantages and facilities the state might have offered, the dominance of the centre over the economy caused the misuse of resources in the economic activity of Libya. Serious problems were the low levels of efficiency and productivity, employment of unqualified personnel, lack of follow up processes, budget deficits, lower returns on capital, distortion of the inflation index, shortage of cash flow, and monopoly of ideas and weak attention to the market.

Low levels of efficiency

Low levels of efficiency and productivity in public enterprises resulted from a combination of factors such as lower yield productivity that reduced energy production and led to weak oversight and difficulty in managing raw materials. Low yield production turned into realized losses. The reduction of actual operational activities compared to designed output led to the failure to achieve savings in production and failure to achieve production targets. Achieving these targets were drivers for achieving economical operation and the shortfall in production outputs created difficulties, leading to higher costs.

The phenomena of lower productivity levels in addition to higher production costs and lower quality of products are considered to be the inevitable results of the misuse of economic resources and bureaucracy and administrative corruption. For example, a report of the People's Board for 1990 showed that the production costs in Trucks Co, the Abu Kammash Complex and National Smelting Co. were high compared to similar imported products. Often higher costs are indicators of deficiencies in the economic administration, which can only be eliminated by radical reform of the management.

Issues such as low levels of efficiency and high costs maybe be attributed to several factors including the establishment of certain industries without conducting adequate economic and technical feasibility studies; lower operating capacity as compared to designed capacity; lack of the optimal use of machinery; a shortage of operational equipment; lack of spare parts; failure to conduct active maintenance work; shortage of training and rehabilitation programs; a higher rate of administrative and service manpower as compared to workers in production; large dependence on foreign manpower; and finally, a lack of attention to cost accounting systems and elaboration of appropriate budgets.

Most Libyan state-owned companies suffered from many problems reflected either directly or indirectly by lower production capacities and higher production costs. In general, a lack of integrated planning for specifying the needs of the national economy for companies and productive units existed in the industrial sector during development and extension of the existing companies or in the construction of new companies.

Employment of unqualified personnel

Employment of unqualified personnel resulted in losses to the state and the emergence of a black market due to the shortage of commodities. Non-viable market sources and methods of provision of goods resulted in losses to the state. These were also related to whether the commodity was locally produced or imported. A lack of qualified personnel can create lower production levels of locally produced commodities, as a result of the stoppage of production lines, a shortage of the necessary raw materials for production, closing of the factories and even the exit of the industry from the market.

Lack of credit facilities

Also the stoppage of imported commodities or the fluctuation of import operations due to a delay in obtaining credits for imports, the lack of necessary foreign exchange for financing the expense, or commercial policies can lead to either a shortage of imports or complete prohibition of the necessary imports.

Marketplace disruptions

Other problems include interference in the market by specifying a legal price for a commodity lower than that of the market price as a price subsidy for consumers and improper display/supply of the commodity as a result of lower efficiency of

distribution channels. Such problems can suggest the existence of shortage to the consumer and create an atmosphere of anxiety and uncertainty, leading to purchase of all commodities displayed in sale centres and creating a crisis in providing the commodities.

Economic mismanagement

Many problems are attributed to economic mismanagement and lack of incentives for those in charge of production, importation or distribution of commodities. In addition bureaucracy and centralization play an important role in creating such difficulties including a lack of information on the market and subjecting the distribution of various commodities to many restrictions in terms of quantity and quality.

Lack of follow-up processes

Alqadhafi (2002) stated that weak control and the lack of follow-up processes in Libyan public sector companies resulted in low productivity. Control as a management task is no less important than the planning, supervision of the tasks or other management functions. Thus, control is considered as a means of avoiding problems and bottlenecks, which may occur during production or provision of commodity or services. Hence, control is considered as an important means of avoiding an increase in production costs ensuring that production plans are completed in the manner envisioned.

For instance, the Management Committee of the Arab Cement Company lacks control over running work in its factories. This lack of control has meant an absence of co-ordination between the production units, especially with respect to purchase operations from abroad, and, in addition, a lack of discipline among company employees (Alqadhafi, 2002). A lack of discipline has resulted in production stoppage in certain factories. Additionally, despite lower production rates, the number of workers employed therein has often remained unchanged or actually increased in certain cases. Regardless of productivity, the number of producers/workers and their salaries often remain fixed and unaffected by lower productivity levels. This is a clear example of the misuse of economic resources.

Budget deficits

Deficits in the general budget and an increase in the public debt are often the result of the public sector playing a role in economic activity, as losses resulting from the ownership of the public sector must be covered. For example, the final accounts for the 2003, which were submitted in 2006, displayed an account deficit amounting to 1.974089 Billion Dinars for the year. These phenomena of continual deficit in the general budget and aggravated public debt are considered to be indicators of the problems encountered by the general financial administration and weak accounting systems adopted by the Secretariat of Treasury.

In view of the expanded range of the public sector over the production and service sectors and the absence of a role of private sector, which utilizes individual initiatives, a deficit in general financial administration will continue and public

sector companies and institutions might suffer from defaults in their financial structures. This problem may exist as long as the public treasury finances all activities, irrespective of the returns achieved. At the same time, numerous bodies at the municipal level and centralized bodies will suffer from lower revenues due to their inability to collect taxes and fees due. In turn, such shortfalls will mean a continual deficit in the General Budget, unless the nature of economic management and the financial system of the State are reformed.

Lower returns on capital

Continual lower returns on capital are connected to the utilization of economic resources. Failure to maximize utilization of the various resources leads to the lessening of employment opportunities. The investment of resources in businesses with low production capacities (less than the maximum capacity) results in higher production costs and lower economies of these projects in general. Often issues include embarking on projects without conducting the necessary feasibility studies or implementing projects irrespective of the results of an economic feasibility that has been carried out. In the latter instance, the project is justified on the basis of social or political factors, despite knowing its unfeasibility from an economic perspective. The outcome is projects that lose money in their early stages, have no potential for success in future, or would achieve small returns in proportion to what would have been invested. If public funds have been exhausted on such projects, they cannot be invested in alternative uses.

Several examples of low rates of return on capital investments in industrial and agricultural companies exist in Libyan governmental reports. These include:

- 1) An examination of the assets of 170 general companies indicated a low contribution of these companies to the general budget of the state in the form of transfers of their production (surplus or at least non-dependence) to the public treasury for covering the expenses for their activities.
- 2) The Real Estate Investment Bank, Libyan Insurance Company, Partnerships/ joint-ventures of the Development Bank, Savings and Libyan Arab External/Foreign Bank as well as certain commercial banks were characterized as being stagnant and achieving small returns, causing the demise of certain joint-ventures (General People's Committee for the control and follows up, 1989).
- 3) The proper scientific assessment of investment companies would require information about their financial situations for several consecutive years so as to obtain a time series of data indicating the returns of their activity. Thus, decisions would not depend upon one or two years. However, such data is often unavailable.

The most important indicators for lower return rate are: lower actual production capacities as compared to designed capacities, higher production and operating costs as compared to designed capacities, suspension of production in some factories and fluctuation of production in other factories, difficulties in marketing products and an inability to compete with imported products as a result of higher production costs and lower quality, weakness of financial structures, and an inability to overcome the encountered debt problem.

Distortion of the inflation index

One metric for measuring measurement uses the consumer price index. The consumer price index describes the changes in the price to consumers of a basket of different articles over a certain period. In the Libyan economy, the categories used are distributed into seven commodities and services. These include: foodstuffs, beverages and tobacco; housing and its adjuncts; clothes; transport; entertainment, educational and cultural services; medical treatment and medicine expenses; and other expenses. The articles comprising the index were adapted to suit national accounting systems under the “Third Adjustment of the UN.” However, the figures for Libya are out of date and not countrywide. Therefore, computing these figures across the entire country and its highly populated main cities are necessary for results of the analysis to be applicable.

Shortage of cash flow

A shortage of cash flow exists in most public sector projects. The non-existence in the financing structures of the public sector companies and projects is one of the most vital problems encountered in such projects; thus, the possibility of success in achieving their objectives is low. Moreover, the shortage of positive cash flows is considered to be a feature of economic mismanagement and a method of differentiating between the various public sector units. The most important reasons for a shortage of positive cash flow are: 1) non-liquidation of dues curbs the capability to implement import budgets, thus leading to a reduction in their activities

and depletion of their capital resources, and 2) expenditure of most of their funds on salaries and running services without a corresponding production return.

A shortage of cash flow in agricultural projects has led to their inability to meet their obligations and pay salaries and wages of employees in a timely manner. In turn, this situation has led to financial burdens resulting from bank interest as a result of overdrawn accounts. Also, the inability of some companies to collect their debts from other companies makes them suffer from a shortage of cash flow.

In addition, inadequate debt balances from one company to another or funds that some companies in the strategic industries sector have borrowed from commercial banks to cover their expenses were a result of a cash flow shortage. For example, the overdrawn account of the National Smelting Co. reached LD. 3.2 Million in 1990. The company has incurred continual losses since its establishment, with its total loss reaching about LD. 11.6 Million in 1992, which exceeded its capital.

Monopoly of ideas and weak attention to the market

The emergence of a monopoly of ideas, goods and services and weak attention to market studies and a lack of adequate attention to research and development causes problems as well. When the public sector dominates all aspects of economic life, laws prohibit the practice of certain economic activities by individuals or the private sector and confine such practice to public bodies and companies. When the monopolist activities include distribution and marketing of minor consumer commodities, the daily needs of an individual are less likely to be met. Hence, the

disadvantages of government, centralization and administrative corruption imbued in many practices made under the umbrella of the public sector are transferred from the monopolist institutions to the individuals and directly affect their daily lives. If production and distribution of commodities and services are under the monopoly of public sector institutions, citizens must submit to the conditions and restrictions dictated by these institutions and employees can take advantage of situation by obtaining the particular commodity or service.

When certain subsidized commodities are scarce, citizens must search for them and bear the problems associated with their scarcity; they often resort to obtaining them from the black market.. Besides, the quality, quantity and the manner of distribution are no longer in the hands of the consumer, in as much as they are controlled by the monopolies and used as a sword on the neck of the consumer. That consumer is obliged to buy the available quality and quantity in accordance with that which is required, irrespective of his actual needs and in the time and manner the monopolist has specified.

Furthermore, domination of the monopolist institutions over importation of certain goods necessary for production of intermediate commodities or capital equipment and machinery directly affects the production process in a way unlike that of non-monopolist establishments. Often monopolistic establishments produce lower quality local products, have lower production levels, have higher production costs and cannot compete with imported products. A monopolist enterprise may not engage in necessary research and development projects for reducing production costs and increasing returns. Instead, that enterprise raises the price of the commodity by

various means, thus consumers must bear the output disadvantages of monopolist activity. A monopoly and its effects may even occur in activities without being announced or legalized. This is for the simple reason that the state owns the factory or the marketing channel, which is managed in accordance with the laws and regulations for organizing the public sector.

Both underproduction and overproduction in many public companies is attributed to inadequate market studies and not knowing the tastes and desires of the consumers. Moreover, lower quality products resulting from the absence of research and development units and quality control makes them undesirable and likely to be substituted for by foreign imported products, if available. Negative results emanating from economic policies such as continuing to depend on oil as nearly the only source of export revenues have influenced the whole economy of the state.

2.3 SLOWDOWN IN PUBLIC PROJECTS

The public sector in Libya became accountable for the management and financing of most production-related projects, and this development coincided with rising oil revenues. In the 1970s, these revenues were adequate to finance expansion needs of the state's role in economic activity to correct the economic structure that had prevailed before the discovery of oil.

Unfortunately, adequate levels of communication were unable to be maintained as the public sector grew and such growth also proved to be unsustainable over the long term. The 1980s oil glut had clear consequences on the Libyan economy during the

application of five-year plan, which ended in 1985. Therefore, Libya was unable to complete her line of programs and projects for development. The declining oil revenues resulted in an accompanying decline in funds flowing outward from the treasury and affected the performance levels and production rates of the projects. Additionally, most investment projects suffered from low yields due to low levels of productivity in most public sector projects. Libya, as a nation, suffers from low productivity. Actual productivity of enterprises in the public sector were rooted in administration, finance or marketing methods, and these was the main causes of the inability of manufacturers to achieve production targets.

All these factors was resulted in non-optimal exploitation of economic resources and wastage and therefore brought about loss of income to the community, which could have been achieved if those resources were exploited effectively.

2.3.1 Reasons for Slowing Down of Public Enterprises

The several indicators revealing the poor performance of Libyan economy are listed and explained below.

2.3.1.1 Management Efficiency

Public sectors companies in Libya suffer from many problems of administrative. Most of those problems revolve around the efficiency of administration and the affects that those inefficiencies created. These can be attributed to the following factors:

1. The inability to follow standards for quality and profit led to the creation of inefficient management that reflected the lack of necessary capacity for successful management.
2. The inability to proceed from the principle of responsibility has led to problems. The state meets project needs from the necessary funds and guarantees funds borrowed from banks, but this very process has led to a lack of accountability in project management. Adequate preparation of economic studies would ensure the return on money invested in these projects, especially given the commitment of the state for social dimensions, especially in the availability of essential goods.
3. No clear criteria for the selection of leaders for public sector companies, exist which led to unproductive leadership and interests of the management in properly directing these companies.

2.3.1.2 Pricing and Quality

In line with the stated goals, the public sector in Libya was mostly successful in preventing class distinctions and altering the tools of production, in addition to developing new economic projects. The pricing of essential goods produced by the public sector is subject to policy support accounting for social dimensions such as those people with limited incomes. Hence, the actual pricing of some commodities of public sector was not taken into account. The conditions and the economic efficiency of projects was based on either identifying a certain profit margin or price caps in

order to protect low-income consumers often at the expense of required quality standards.

Companies kept their public sector roles and met the pricing needs of the local market. Foreign markets were not defined in terms of the best interests of companies which led to weak export capacities of public sector companies as did the complexity of access to markets not subjected to the requirements of public pricing decisions. Nor was great interest taken in the quality of the product.

2.3.1.3 Employment Policy

As a result of socialist revolution, the state became accountable for finding jobs for every graduating student. As a result of this policy, the public sector became the biggest employer in Libya. However, these youth came to be considered was responsible for causing instability in the public sector workforce. In essence, all employment advantages the state granted did not lead to improved labor productivity or an increase in efficiency. After a period of growth and prosperity, projects collapsed and became a burden.

2.3.1.4 Investment Policy

Public sector companies in Libya have worked to support the policies of socialism through achieving economic development via the framework of a comprehensive economic plan. Moreover, the investment policy followed by public sector companies played a major role in the performance of those companies that invested

in industry. Sometimes companies did not have access to necessary materials and had to import raw materials from abroad. Such importation required companies to pay their obligations to suppliers from abroad in foreign currencies and, as a result, the burden of expensive often increased because of unfavourable exchange rates of a particular foreign currency.

2.3.1.5 The Cost of Funding

The cost of funding has been one of the most vital factors affecting the performance of public sector companies in Libya and led to lower performance for companies suffering from cost of funding defects. This deficiency has led an increased burden funding for those companies. Among the most important reasons for existence of disparity in the financing structures were the following:

1. Going beyond the approved investments in budget planning of companies led to borrowing from the banking system to finance long-term investments, resulting in an imbalance of financing structures.
2. Inadequacy of long-term funding sources to cover the fixed investment as a result of an increase from realized losses.
3. Insufficient reserves from retained earnings to strengthen the financial positions of companies.
4. Imposed limits on some socially supported products in the public sector companies led to a price/cost imbalance. As a result of prices below cost, the actual costs of such products reduced the liquidity positions of some public sector companies and forced them to resort to borrowing in an attempt to bridge that gap.

2.3.2 The Possibility of Public Sector Reform

Many economic analysts say that public sector institutions have become a waste of national wealth and are tools for corruption, cronyism, and nepotism (Abdo, 1994). Some believe that, in the search for new resources and in an attempt to improve the use of available resources, the state should pave the way for the private sector through the ownership and management of public institutions (Park & Russo, 1994). Others feel that it is possible to overcome the large number of problems of the sector through the separation of ownership of public facilities. Still others feel that improved efficiency can be achieved by applying the principle of decentralization of public sector management.

Among objectives of management is to provide the necessary investments and production required year after year, to determine manufacturing costs, and to determine the selling price of their products. To reconcile the labor market and the rules that direct administration, the market must play a role in the process and management must respond to distribution needs. Most attempts at economic reform in socialist countries are based on narrow roles and limited to a mechanical view of the market in some areas, though especially in consumer goods (Poole, 1996; Easterly, 2001).

Socialism is based on the eradication of the private sector and private property and proponents consider the resulting socialistic system equal to the capitalist system. Some believe that the state ownership is the best proprietary formulation and the most advanced. To respond to this formulation, a large bureaucracy has emerged to

manage, regulate, and control the process and to achieve economic, social, and political objectives.

2.3.3 Economic Policies for the Advancement of the Public Sector

No model of economic reform can be applied to all states or in all cases, but a number of common elements exist that are needed for any economic reform program so that this particular program is capable of achieving the main goals of the reform process. Emphasizing the needs (and existence of) the political will of the state, which proposes a reform program is important as is an agreement among those interested in the process of economic reform. In addition, the schedule for implementation of reform process is a critical element in the success of the entire program, with a trade-off arising between progressive implementation and rapid development.

To increase the efficiency of work and activity of public sector institutions in Libya and the state in general, the problems of low production efficiency in particular must be eliminated and the problems of development in general must be resolved (Alfatory, 2004). The proposed solutions comprise the following points:

1. Increasing the competition and the elimination of monopoly. This can be done by selling units in the public sector directly to the private sector or by giving the private sector the opportunity to engage in activities, which were previously confined to the public sector.

2. Improving the performance of public sector institutions. An important consideration in the transitioning the economy is to keep an important part of economic activity in the public domain. Because of this, a need exists to improve the efficiency institutions in the public sector through removing the monopolistic nature of those public sector institutions and managing these enterprises on the basis of sound economic principles, determining the economic objectives of public institutions and eliminating state subsidies.
3. Developing and implementing sound economic policies. A large number of countries face severe economic problems in the instance in which an imbalance exists between aggregate demand and the size of aggregate supply in the community. Unevenness in the size of external debt increases inflationary pressures, produces a declining rate of growth of the national economy, and increases in the state budget deficit leads to reduced circumstances for the country. Three policies can impact the situation.
 - First are policies affecting the absorptive capacity of the economy. The policies associated with aggregate demand management policies contain: monetary policy, fiscal policy, and policy related to private consumption. All these policies, but in particular monetary and fiscal policy, are developed with the intention of controlling the aggregate demand. The policy of promoting private spending is aimed at developing a proper level of consumption.
 - Second, structural policy is interested in achieving a more efficient allocation of economic resources, particularly in the medium or long term. These policies also include those designed to increase the efficient distribution of resources among the many possible uses for those

resources in the economy and those policies to expand productive capacity in the economy.

Despite the possible good affects of these policies, many practical difficulties exist in implementing them in Libya. Among those difficulties are the poor ability to move capital and labor between the various industries. A change in relative prices may lead to increased unemployment for a relatively long period before the required structural adjustments take affect. Another issue is changing the economic policies pursued earlier for non-economic goals such as ensuring the appointment of graduates and price supports for goods. Restrictions on prices or restrictions on foreign trade may also raise political problems and social problems.

- Finally, exchange rate policy is designed to improve competitiveness at the international level and promote the production of goods that can be exchanged. In theory, this policy would appear to reduce demand and the deficit in current accounts and impact the supply side. In turn, this might increase the gross domestic product and reduce surplus production capacity. The price elasticity of both exports and imports impacts international trade.

2.4 PRIVATIZATION AND ECONOMIC LIBERALIZATION POLICIES IN LIBYA

In Libya, a new orientation towards the policies of privatization and economic liberalization are urgently required by the circumstances of economy in a developing

country whose economy relies mostly on the natural resources. Reduced oil exploration has given the private sector the opportunity to engage more fully in the development and management of economic activity.

More diverse ownership of the means of production in non-oil sectors has been promoted order to revive the economy of the country. In the context of economic changes since the revolution, the strengthening of economic freedom and working to raise the efficiency of production facilities and services has been made government policy. The General People's Committee established the General Board of Transfer of Public Companies (GBOT) in 2000. The objective of the committee was to transfer public ownership of companies to the private sector to spur economic development.

In 2000, the rules pertaining to partnerships created in Law No. (198/1430) contained provisions relating to economic activity and reflected the decision of General People's Committee No. (724) to transfer many publically owned enterprises to individuals. The policy was aimed to restructure the Libyan economy (IMF, 2003).

Consequently, the privatization policy adopted to help the Libyan economy included the following elements:

1. Transferring ownership from the public sector to individuals (whether individual or collective ownership);
2. Separating ownership from management; and
3. Limiting the role of the state in the output of certain commodities for strategic importance of economic and social development.

The choice of reducing state control of economic activity was the option that expert committees in the field of economics have recommended. The University of Garyounis Research Centre for Economic Sciences in Libya examined the situation in historical context. The Centre considered the impacts of the economic crisis in Libya in the late 1980s and early 1990s and the resulting instability the country had experienced. As a result of these shocks to the economy, the private sector had been nationalized, leading to the absolute supremacy of the public sector in economic activity. However, by 1991, the Centre, in coordination with the General People's Committee for economic planning, looked at the economy and began discussing the need to restructure the Libyan economy based on liberalization to free the economy from the grip of the state.

In spite of these moves towards a more open economy, Libya maintained several restrictive trade policies. A service fee of 4 percent was imposed on imported goods and differing levels of consumption tax existed between goods produced locally and those produced overseas, and this reduced the transparency of import duty regime. Libya also maintains trade restrictions on products for which imports are reserved to state enterprises and restricts competition in several economic sectors, including the telecommunications and transportation industries (IMF, 2005).

After the lifting of sanctions on Libya in 2006, the government of Libya began a major programme in infrastructural investments that included replacing its domestic air fleet, the expansion and modernization of ports, construction of new railway lines, modernization of oil installations as well as the development of a tourist industry

(Otman & Karlberg, 2007). A major contribution to Libya's economy is expected from increased Foreign Direct Investment (FDI), which has increased rapidly since 2004. (See Table 2.2 and Table 2.3 below.).

Table 2.2
FDI Flows As Percentage of Gross Fixed Capital Formation

Libya	1985-1995	2001	2002	2003	2004	2005	2006	2007
Inward	0.6	-3.7	5.5	4.8	3.9	14.4	23.0	25.3
Outward	1.6	4.9	-5.1	2.1	1.9	1.8	-6.1	-4.8
Inward	4.0	20.7	13.0	15.0	12.5	13.3	15.8	16.2
Outward	1.9	3.7	2.8	1.6	4.2	5.9	9.0	9.1

Source: Anne, (2005). UNCTAD, World Investment Report.

Table 2.3
FDI Flows Millions of Dollars

Libya	2005	2006	2007
Inward	1038	2013	2541
Outward	128	-534	-479

Source: Anne, (2008). UNCTAD, World Investment Report

Increased FDI was facilitated by Section 5 on the Encouragement of Foreign Capital Investment in 1997, the amended Petroleum Law No. (25) of 2004, and the 2004 law on the Libyan Tourist Sector. The 1997 law permitted 100percent foreign ownership of companies that receive a license. Under the 1997 law, an investor is entitled to employ foreign staff and technical expertise necessary for the establishment and operation of the project. According to the letter of the law, "services" are one of the fields in which investment is allowed. A 2003 law also introduced the concept of

joint or shared ownership of an investment enterprise between foreign and local investors in Libya.

2.4.1 Obstacles to the Privatization and the Private Sector in Libya

Privatization like any other process involves structural changes to the economy in which benefits to the community are important and the biggest problems that may occur can be controlled for. The number and kinds of controls may differ in their goals in the privatization and liberalization of the economy. In the case of Libya, the direction of the liberalization of the socialist economy and state control of economic activity was directed towards political, social, religious, and geographical considerations. The objectives of economic activity in Libya included diversification of income sources and reduced dependence on oil, creation of production base. The economy would be developed through increased competition and efficiency for production facilities and service industries. Furthermore, contributions of Libyans to help achieve economic and social development plans were to be facilitated through their ownership of individual enterprises and the involvement of the largest possible number of community members and individual institutions in economic activity. This was seen as a way to ensure the expansion of economic activity and economic freedom for individuals.

However, making change has been difficult. The economic policies of Libya during the stage of developing plans still radiated from the public sector. After a long period of control by the public sector, expansion of the ownership base has faced several obstacles. A number of problems and obstacles mentioned are listed below.

1. A lack of private sector confidence: The experiences of private sector in the past years raised large doubts about the credibility of any decisions or any actions taken by the state.. For instance, in the early 1970s, the private sector was encouraged to establish joint stock companies. However, after these newly established companies proved a great success, they were transferred to the public sector. Another example was that of cooperatives and factories that obtained production inputs imported from abroad. Often they had difficulties in obtaining the necessary materials in a timely manner, which led them to halt the production processes (Alfajori, 2004).
2. As a result of expansion of the public sector, numerous regulations were issued along with an increased number of institutions and sectorial and sub-units of productivity. These led to an increased number of staff in the units. The growing sense of the sovereign role of public sector produced a tendency to resist privatization as privatization threatened the strong relationship between these employees and the places at which they worked for decades and with which they had been associated. The development and the expansion of the bureaucracy in each institution had social and political dimensions and created a large obstacle in getting free from government domination.
3. A commercial institution in the private sector is not immune from government interference, because the government creates the legal environment in which it conducts business. In such an environment, laws could be used to control all the institution's business aspects. The probability that recently privatized institutions continue to confront the government's administrative or regulatory regime depends primarily on the reason for

which institution was subjected to government control. Sometimes government control was aimed at protecting the poor and needy.

4. One important objective of the public is to fight against unemployment, which led to a large number of workers employed in companies and factories in the Libyan public sector. However, this practice led to the emergence of so-called “disguised unemployment.” Disguised unemployment is when more people are employed than are necessary to complete the task. The employment of these non-productive workers taxes the budgets of those institutions engaging in the practice and impedes production operations. The problem of this surplus labor forms an important obstacle to the process of privatization. Most public sector schemes suffer from a huge number of redundant workers, which is the direct outcome of misguided recruitment policies placing emphasis on social and political factors rather than on real need.
5. The transfer of public sector projects is characterized by monopolistic conditions (natural monopoly) for services such as education and health. Due to the absence of a competitor in the market, a transition from those monopolies to the private sector may occur. In this case, quality and price of goods become issues.
6. Financial market regulations in Libya and limited national savings represent one main obstacle facing the policy of privatization. The limited financing capacity means that the necessary capital is not present to buy some public facilities.

7. The problem of debt accumulated by public companies increases the difficulties facing the process of privatization in the Libyan economy. These may result in timely payments not being made.

2.4.2 Privatization Trends in the Non-Oil Industries

Among the economic sectors in Libya, industry employs almost 30 percent of Libya's total workforce, which is about 2.4 million workers. The non-oil manufacturing and construction sectors accounted for about 20 percent of GDP and range from production of iron ore, steel, and aluminium, cement food processing and manufacture of textiles and handicrafts (World Report Libya, 2004). Among Libya's non-oil industries, the Libyan Iron and Steel Company (LISCO) is one of the biggest iron- and steel-making companies in North Africa; also, cement production is one of the most promising industries in the non-oil and the non-fuel mineral sectors. The non-fuel mineral sectors include the production of ammonia and urea at the Marsa El Brega ammonia plant, the quarrying of clay, gypsum, and limestone near Al Khums, the quarrying of limestone and dolomite used in production of lime and calcite dolomite for LISCO as well as extraction of salt from the coastal plains near Benghazi and Tripoli. Other companies include: the National Company for Soap and Detergents; the Libyan National Textile Company; and the Assamaka Company for Paints & Chemical Materials. Most of these industries were supported by a framework limiting the quantity of importation.

In general, the profitability of these industrial corporations was very low. This led to the public budget shouldering the burden and helping many public corporations,

which often were loss making. Similar to many other countries especially in the Middle East, Libya has been battling with productivity-related problems in its manufacturing industries.

A number of related factors have led to this low performance. They seemed to be so closely related that they had been so often mentioned and cited in the annual reports of the Secretariat of Industry. For instance, these include: a lack of hard currency, an insufficiency or delays in obtaining banking credit, the difficulty of changing prices for the final production as a result of the Secretariat of the Economy controlling the level of prices, an excess of an unskilled labor force, and the lowering standards for managerial duties.

The Libya industrial sector structure was developed during a 30-year period, following the Al Fatah revolution in 1969; this structure took after that of many socialist economies, with the main aim of a self-sufficient economy. The industrial sector of Libya was structured to achieve two main objectives. The first was to supply the Libyan market with the necessary goods. The second was to employ as many workers as possible. Unfortunately, this arrangement could not be sustained, as production costs could not be match the actual costs of products. Thus, enormous debts were incurred in those companies. To this eliminate this problem, the government has resolved to put a halt, to this unfavourable arrangement.

Today, privatization of Libyan companies remains in its infancy, and how this process will be structured and implemented remains uncertain. However, one thing is certain, that Libyan industry, which has been endowed with some enviable features,

must be linked to the world trade and investment flows. This is necessary if the dream of self-sufficiency of Libya will come to pass in the context of globalization (The Ministry of Economic and Trade, 2006).

2.5 CONCLUSION

Libya like any other oil-rich country in the Middle East and North Africa has used crude oil to sustain its economy, but has suffered when the price of the crude oil in the world market fluctuates and, and declines.. Noteworthy, however, is the fact that the country has exerted remarkable efforts aimed at achieving economic diversification since 1970. These efforts have led to sustained investments in the non-oil sectors, especially in manufacturing and agriculture, among other sectors of the economy. The great hope is that this diversification policy will allow the private sector to improve efficiency. In addition the policy was put in place to increase the competitiveness of the national economy, to increase the degree of openness to the world markets, and to heighten the degree of competition in all markets.

Though this policy is expected to face a series of challenges, nevertheless the process will definitely transform the economy and change the organizational structure and operating companies that were functioning in the environment of public property and laws before the diversification policy. It is against this background of necessary change that the government and the civil society are seriously pushing hard to make this evolution happen.

This chapter explained the key indicators of the Libyan economy, which determine Libya's ability to keep abreast of developments and to have access to global markets, which are highly competitive. It also focused on the factors behind the failure of economic developmental projects that were critically examined, alongside with the resultant economic backwardness produced by poor management and state control over the economy both from an internal perspective and an external perspective. This chapter provided the fundamental base for the next chapters, in which possible scenarios were identified for the analysis and interpretation of results within the reach of the research method. Without losing the focus of the study, this chapter looked at the balance between the current reality of the Libyan economy and the ambitious future. Therefore, on the basis of the review of literature, a conceptual framework for the study will be explicated in Chapter Three.

CHAPTER THREE

LITERATURE REVIEW

3.0 INTRODUCTION

This chapter discussed the relevant theoretical and empirical literatures of this research study objectives and rationale. This chapter is divided into eight sections. Section 3.1 reviews the evaluating of the public and the private sector in the literature. This is followed by Section 3.2 witch discussion a different definition of privatization. Theoretical evidence of privatization is presented in Section 3.3 and followed by empirical evidence in Section 3.4. Effects of privatization are presented in Section 3.5. Section 3.6 explains the privatization and performance, and Section 3.8 summarizes the chapter.

3.1 EVALUATING OF THE PUBLIC AND THE PRIVATE SECTORS IN THE LITERATURE

Through the history of mankind, the state has always played a pivotal role in the economy, even though this role has varied from one state to another through their different stages of development. However, persistent worries about state intervention in economic activities have always existed. Consequently, ideas have emerged calling for restriction of state intervention and an absolute reliance on free unrestricted markets for the distribution of products, based on prevailing beliefs in success of private projects. For example, Adam Smith wrote in 1776 that the

statesman and the businessman had diversely conflicting personalities, for the simple reason that people would become excessively generous with other people's wealth rather than their own wealth. This argument emphasizes the importance of private ownership and private management (Fadhel, 2004).

The history of the evaluating of the public sector can be dated back to pre-market economic organizations, which have been widespread across the world. These include systems that have dominated the civilized world and that have been centrally controlled, which have been known in the past and the present as an "authoritarian economy".

Authoritarian systems were predominantly repressive in nature, ruling people through military power on the pretext of preventing insurgence and disloyalty. Other rationales have included eradicating tribal and sectarian conflicts and other matters that might jeopardies the safety and security of state. These potential dangers tended to tighten state control, enhancing its military machine, and giving it financial and economic powers to assist it in supplying its armies with rations. The military was often given the authority use prisoners of war in all economic activities including the cultivation of land and construction, and occupied territories were heavily taxed.

Meanwhile, the economic activities associated with private sector are usually controlled by the market mechanism, which aims at achieving the maximum profit possible (Hatem, 1994). According to Al-Robiai (2004), two kinds of private sectors exist. These are: (1) the organized private sector, which adopts an organized system

of accounts for all its activities, and (2) a disorganized private sector, which does not keep organized accounts and is usually associated with craft activities.

The market system is the result of slow and gradual social development and a long history of trial and error (Al-Robiai, 2004). The market system seems as old as mankind itself and came into existence superseding the primitive economy of self-sufficiency. However, the flexibility and vitality of the market arises from its continuous development and adaptation to environmental conditions and technological changes and the changing tastes for varying forms of the market from time to time and from one country to another.

For example, markets in the early times were different from those in middle ages, and also from the markets in Europe during the industrial revolution. Likewise, contemporary markets in countries are different from those in the past. However, economic history in general is about exchange, after humans had discovered the importance of specialization and the division of labor. The market has always been the medium assisting in the progress and advancement of exchange activities. Moreover, markets and other economic tools, most importantly money, have been the most significant factors that have led to the development and progress of exchange economics (Al-Bilawi, 1998).

Even in the absence of authority, the course of development of the market has not been characterized by chaos and disorganization. This influence of market is achieved at varying levels even in the absence of a higher authority or a vigilant administration. On the contrary, this development has been rather interactive, and the

market has rendered an accurate organization of economic relationships incorporating both the producing and the consuming sides of the society. The independent behaviour of all economic units, whether producing or consuming, has helped coordinate individual decision-making to achieve a kind of general automatic balance as each person responds to his own best interests and needs. Every producer or seller is seeking the highest possible price for his side and usually seeks the lowest price possible for his purchases. Therefore, this contest between producers and consumers tends to readjust prices to the point at which a final balance between supply and demand is established (Al-Robiai, 2004).

Changes in the price usually constitute a good indicator of the future behaviour of producers and consumers as well as the amount and quality of the product in demand. Consequently, an automatic balance and coordination in decision-making will be established between the two parties without the need for a higher authority to dictate the relationship. As a matter of fact, this sort of involuntary balance is dictated by technological progress from the side of producers and by the changing tastes of consumers.

Hence, the market always plays a major role by virtue of its perfect organization of producer-consumer relationships without the need for the intervention of a higher authority or centrally issued decrees. Moreover, the role of the market is significant in balancing economic relationships and in readjusting the behaviour of producers and consumers without any initial necessity to organize production or consumption.

It follows that every individual is looking out for his own best interests in order to achieve the best possible income, the best possible price, and the highest quality. In his bid to achieve these outcomes, the public interest is always considered because the focus is on the production of items most in demand by consumers and the most capable producers are encouraged to provide the least expensive products while products that are too expensive or unworthy are eliminated.

Adam Smith used the phrase “the invisible hand” to describe the process in which the market always serves the public interest. In other words, the public interest is always an inherent element with regard to consumers or producers working towards achieving the best result. It seems, then, that an invisible hand is pushing them towards achieving the public interest.

According to Adam Smith, this phenomenon justifies the idea that the state should refrain from economic affairs (Al-Robiai, 2004). Smith created the basis and conditions of the market in the economic ideology in his book *The Wealth of Nations* first published in 1776. Smith called for the state to be limited to the following functions:

1. Defending territories from outside invasion;
2. Maintaining internal security to protect its citizens and their property from other hostile individuals; and
3. Keeping law and order by issuing laws and regulations to organize the administrative and justice affairs of the state.

With respect to the economy, the market arrangement will be capable of organizing all activities including production, distribution and consumption. Moreover, the market has the power and the efficiency to perform and fairly distribute potential resources and the ideal use of these resources by the different economic sectors. An evaluation system would be capable of undertaking this role, including the allocation of resources, general budgeting and achieving economic growth. Yet, for an evaluation system to assume its role, a competitive market should satisfy two main conditions. These are: (1) free competition with regards to product marketing, raw materials and labor markets; and (2) money should be a means for exchange of goods only.

The publication of *The Wealth of Nations* was contemporaneous with the American Revolution in 1776, which was followed by the French Revolution in 1789. Despite the fact that both revolutions were predicated on a call for liberty, nonetheless the nineteenth-century saw the rise of calls for pluralism and the intervention of state. With the advent of the 20th century, plural regimes such as Fascism, Nazism and Marxism emerged. These regimes believed that liberalism was the legacy of the past, and that it was unlikely to stand the challenge of the modern age (Al-Robiai, 2004).

The severe world depression in 1929 highlighted the weaknesses of liberalism, casting doubts on the ideas associated with the theory of the market and the economic neutrality of the state. In 1936 John Maynard Keynes came up with ideas that were opposed to most classical thinking, suggesting that state intervention was a precondition for any attempt to stimulate the economy. These ideas replaced the classical theory that had dominated economics thinking until 1929. Keynes' ideas,

refuting classical thinking, received huge interest in capitalist states that particularly responded to his calls for state intervention through public expenditure.

Hence, these states adopted Keynes' ideas with the aim of overcoming the economic crisis that had hit the world in 1929. Those ideas were actually an attempt by Keynes to revamp the liberal system in order to avoid future crisis, allowing for the intervention of the state to manipulate spending when necessary. In other words, when the private sector could not stimulate the economy, this failure gave the state a pretext for intervention, expanding the economic activities of the public sector.

State intervention in economic affairs led to the socialist states in Russia and the Eastern European countries, as well as numerous freedom movements in countries across the world that had long suffered from colonial or feudal rule. All these factors made state intervention in economic affairs inevitable for most of the world depending on the prevailing economic regime. For example, in the Soviet Union and Eastern European countries, and later in Western European and developing countries, the state became more significant at the expense of the private sector, which completely disappeared in socialist states and played a marginal role in most developing countries. Yet despite losing ground, the private sector still had a role to play.

State intervention in the economy and the subsequent expansion of the public sector at the expense of the private sector left most developing countries seeking external loans to achieve development, given their meagre resources and the financial, administrative and organizational problems associated with that expansion. Other

problems included the failure of the public sector to cope with state ambitions, the problems associated with foreign loans, budget deficits, and sustaining deficits in the balance of trade and the balance of payments, in addition to the underperformance of the public sector and its failure to deliver in most areas. All these problems led many governments to reconsider the whole process of state economic intervention, including the possible transfer of a number of projects to the private sector. That move was fuelled by the transformation of the rich capitalist states and their advanced executive organizations into international financial institutions.

The liberal ideology that retreated during the 20th century giving way to socialist and totalitarian ideologies started fighting back, gaining ground and extending its reign. This rebirth was initiated by privatization in the context of major liberal transformation giving the private sector a leading role in the economy. Privatization emerged as an economic policy and a development programme adopted by some governments in the early 1980s. The United Kingdom was the first to consider privatization during the rule of Prime Minister Margaret Thatcher.

Thatcher thought of privatization as a means for achieving better economic growth, because state ownership and its control of major projects put such projects under a more bureaucratically oriented management. This mentality, the argument goes, would not be consistent with the business administration mentality likely to be displayed by the private sector. This is simply because, according to the private sector philosophy, the principles of risk and revenue are the main factors that should govern business (Hasanein, 1993).

Accordingly, a relationship was seen to exist between risk and reward; the more risky the business the higher its prospective revenues would be. This relationship between risk and revenue was seen as likely to trigger the latent innovative powers of businessmen, improving their performance. It would also lead to competition among businessmen transforming the national economy into a dynamic entity spontaneously driven towards development and growth. This driving force was supported by three elements, which are: (1) innovation, (2) risk and (2) competition.

Accordingly, the national economy would achieve higher performance for the welfare of the public at large. Better service, higher-quality products and the direct spontaneous control of production and service economic units were seen as benefits of private ownership and would help achieve the noble objective of economic prosperity. Based on these ideas, the liberal transformation took steps forward, and the private sector became more significant in increasing its economic contributions. The form of this transformation depended on the measures taken by individual states and the methods adopted in the process of transformation to the private sector.

3.2 CONCEPT OF PRIVATIZATION

The term “Privatization” has been used to express a wide range of economic and social policies in both developed and developing countries. This may partly explain why there is no single definition of the concept, since it means different things to different people in different countries.

Privatization has meant a reversal of public policy from the state domination of production to private ownership and operation. In the last two decades, privatization has emerged as powerful mechanism to reduce the role of the state in economic activity in developing countries. The process has redefined the role of the state from producer of goods and services to a facilitator of efficient production and provider of basic services to the poor.

Privatization is not merely an economic concept; rather it is a more comprehensive and complicated socio-economic and political philosophy. In its simplistic meaning, privatization refers to increasing the role of private sector and decreasing the involvement of government in economic activities in particular and society in general. Privatization is the strategy or the process that transfers totally or partly, an asset or enterprise, which is owned or controlled, either directly or indirectly, by the state to private organization. It is a process of empowerment that increases people's economic and political participation by creating the opportunity for ownership and a sense of involvement in society. It also involves the rerelease of economic activities from legal and bureaucratic barriers and the encouragement of the free functioning of private enterprises. The underlying intent is to improve industrial performance by increasing the role of market forces (Littlechild, 1994).

In the literature, privatization is defined in different ways. Some authors define privatization narrowly to mean the state owned assets. For example, Hurl (1995) argued that denationalization, deregulation and franchising are all methods of privatization; whereas, James (1996) defined privatization as "the divestiture" by the state of enterprise, land or other assets".

As a basic organization policy for economic activity, where private ownership is an essential factor, and also where markets competition drives production, as well as where private initiative and risk-taking set activities in motion (OECD, 1994). This definition is widely accepted in the literature, from this given definition of private sector both political as well as economic definition of privatization can now be exploited in depth (Megginson, 2001). Political and economic privatization is define generally as the deliberate sale of a government or (SOEs) or corporation or assets to private economic agents (Megginson, 2001).

Another definition of privatization is that is a range of policy initiatives designed to alter the mix in ownership and management of enterprises away from government in favor of the private sector. The most common definition says that privatization implies permanent transfer of control as a result of transfer of ownership right from the public sector to the private sector of activities that are carried out, prior to the transfer of ownership by the public agency. Privatization and public sector phenomenon is considered to be “second generation” adjustment policies, in an effort to distinctively differentiate them from “first generation” policies, which focused mostly on economic stabilization.

There are various ways of privatizing, either by relocation of available production resources, restructuring of existing institutional setting in which production take place and the introduction of new forms of corporate governance devoid of political interference. Having discussed some definitions of privatization in the foregone paragraph, Shehadi (2002) argues that privatization could be viewed as policy based

on a set of empirically supported hypotheses; The first of the hypothesis is that “ownership matters,” that is, economic performance is optimized when the firms are privately owned. Second hypotheses is that, which “management matters,” that private management seek its own interest and that of shareholders which is very paramount and therefore delivers a substantially better economic performance than do politicians or bureaucrats if it were to be managed by the public management. The third hypotheses is, that “markets matter, “That business decisions should be determined by the forces of supply and demand in competitive markets, rather than being single handily dictated exogenously by the same politics or bureaucracy with, at best, distorted market information. Fourthly, that “competition matters,” in that competition in the market is a plus to the economy though it may be disadvantageous to some firms in certain industries. Fifth, that “freedom to fail matters,” that there is a tendency of a firm going insolvent and exiting the market which is an essential part of a competitive and healthy market. Last but not the least that “regulation matters” when markets fail because of information irregularity or monopoly power (e.g. cartel), that effective regulation can be put in place as to balance the interests of firms and consumers in markets where competition does not exist.

According to Shehadi (2002) privatization is one of the economic instruments suggested by the WB and the IMF for many countries, especially developing ones to be adopted, regardless of the number of these countries economic reform and development. Privatization brings about new ownership of the hitherto owned public enterprise and a better relationship between the agency and the management. These promising changes are expected to drive the firm’s objectives towards creating value.

To this end, it is therefore necessary to adopt a more innovative posture and proactive behavior, which will consequently boost the level of corporate entrepreneurship. In addition, privatization often opens up markets to competition, which should in turn raise the level of corporate entrepreneurship.

In any case, the privatization of SOEs is a popular policy in advancing the frontiers of capitalism in many developed and developing countries (Vickers & Yarrow, 1988). However, there is no standard definition of what constitutes privatization in the literature. Privatization may take a variety of forms that can be based on many factors, for example national socio-economic and political configurations. Therefore, each country may have specific forms of privatization applicable to it. For example, the specific forms, which may suit Libya, will not necessarily suit other countries.

Summarily, under this broad definition, the objectives of privatization policy therefore include the enhancement of the economic performance of assets or services, increased expenditure or limiting of budget deficit, promotion of free market mechanism, and reduction of public sector size and spending (Kasperkiewicz & Starzyńska, 1998).

3.3 THEORETICAL EVIDENCE OF PRIVATIZATION

Privatization of state-owned firms are brought about by governments for the following reasons; to increase revenues, to promote popular capitalism, to reward political loyalists, to satisfy the demands of external financing agents, to minimize the administrative of state bureaucracy, and to shift the responsibility for needed

enterprise investments to the private sector (Nellis, 1991). Nevertheless, the main reason for privatization is to enhance the SOEs efficiency and in doing so, minimize the budgetary burden on the government.

In this regard, different theoretical viewpoints have been proposed as to why state-owned firms are not as effective as their private counterparts. Specifically, Shapiro and Willig (1990) consider state-owned firms as instruments that are capable of rectifying the failures in the market through the implementation of pricing policies that take social marginal costs into consideration (social viewpoint). In addition, the SOEs in ex-socialist nations often played a critical social role in providing several social functions and services including housing, medical care, recreation facilities among others. Such functions and expenses adversely impact the SOEs effective performance.

Nevertheless, counter arguments can be made towards the above contention. First, in socialist nations, wages were limited and undifferentiated and in this context, additional social functions and services could be deemed as motivation for effective activities. Moreover, the relevant functions and services could act as stimulants during the transition period, when majority require payment, but their employees with developed social sphere can utilize them for free. Therefore, based on the political view, private firms should not be as susceptible to political influence.

Political influence on the firm leads to excessive employment, negative choices of product and location, lack of investments and adverse management incentives (Schleifer & Vishny, 1994). While SOEs are more vulnerable to interest groups'

pressure, private firms can concentrate on increasing profits. In this regard, private investors often hold a long-term perspective when it comes to assets acquisition that can be sold whereas the electoral assets held by politicians have a tendency to be temporary and confined to the short-term.

On the other hand, the above argument is countered by the contention that with the lack of necessary institutions, private owners may not be interested in keeping the firm's assets in good conditions in the long run (Nellis, 1999) as their interests are more short-term and speculative. In this background, political influence is for long-term and as such, more preferable for enhancing the performance of the firms.

Meanwhile, according to the incentive view, privatization generates superior incentives in that SOEs management may not have superior incentives or they may not be monitored effectively. In addition, the SOEs residual cash flow claims are not as easily transferable compared to private corporation shares and this leads to the impairment of residual claimant incentives to oversee management, and eventually to the negative performance of the firm (Dewenter & Malatesta, 1998). Government supervision has a tendency to be bureaucratic, strict and inclined to overseeing regulations as opposed to new opportunities (Nellis, 1991).

Moreover, under state ownership, the government maintains unconditional control over the utilization of the assets of the firm and motivates rent-seeking behavior by insiders. Government is susceptible to pressure from political bodies in maintaining established rents such as high wages, low effort, high and secure employment among others – this in turn results in loss of incentives (Perotti & Guney, 1993).

In the context of private firms, self-interested shareholders supervise their management and private owners have higher incentives compared to the government appointees in maximizing profits as they hold equity and bear the financial outcome of their decision-making. Accordingly, private firms are more able to offer superior incentives and remuneration to management (Barberis *et al.*, 1996). However, private firms face difficulty in obtaining the assistance of public entities and hence, the penalty for failure to maximize profits is higher and the outcome of labor is more significant.

On the other hand, based on the agency theory and the free-rider issue, the government acts as a block holder in SOEs and are capable of monitoring managers of state-owned firms more than shareholders of privately held firms (Dewenter & Malatesta, 2001). It is noteworthy that in the transition of ownership changes, management could serve their own interests. In other words, new owners and managers could work to satisfy their self-interests in conditions of lack of sufficient legal base, legal nihilism and total corruption. Furthermore, newly appointed owners receive ex-state equity very cheaply and as such, may hold greater initiatives not to maximize profit but instead convert such equity into liquid form and privatize it by shifting accounts of foreign banks or by some other actions.

With regards to the human capital view, private owners select the most optimum management to oversee the efficient running of their firms. State-firms managers are chosen for their prowess in getting along with politicians, handling political concern and lobbying for assistance. Contrastingly, private firms' managers are chosen for

their ability to effectively run firms (Barberis *et al.*, 1996). In other words, in SOEs, politically connected people are appointed as opposed to qualified and capable managers (Krueger, 1990).

The above view is counter argued by the contention that if new owners are not interested in enhancing performance but only in quick enrichment, they will choose suitable managers. Contrastingly, the neo-classical economic theory postulates that the relationship between ownership and performance is a flimsy one. This view considers efficiency to be determined by the market structure and the level of competition and not by the owners of assets (Nellis, 1991). Competition controls the efficient resource allocation, minimizes managerial slack and motivates managerial and worker efforts and thus leading to reduction of investment costs and the quality improving expenditures (Koning, 1970). As a consequence of competition, more opportunities for performance comparison, higher response of performance to managerial efforts, higher probability of bankruptcy all primarily produce incentives for management (Nickell, 1996). The ownership structure of the firm is vulnerable to market pressure in that in the long run every firm who is capable of sustaining competition will end up with a near-optimal ownership structure (Demsetz & Lehn, 1985).

Viewed from the competition perspective, privatization reinforces competition, which in turn enforces the efficiency of the firm. Specifically, overextended and negatively performing SOEs have prevented the growth of the private sector (Kikeri *et al.*, 1994). Government to minimize competition with SOEs often blocks private firms. Moreover, government credits to capital-intensive SOEs frequently push

private firms out of credit markets and bankers have a tendency to perceive an implicit government assurance for SOE credits. This perception leads to loss of credits to the private sector and added to this, the inefficient provision of significant inputs by adversely managed public utilities maximizes the costs of business to private firms and confines their expansion. Furthermore, private firms should be more under the control of commercial financial markets compared to SOEs as the latter operates under soft budget constraint as claimed by Kornai (1990) and Barberis *et al.*, (1996). SOEs frequently gain capital at less rates of interest and are recipients of state subsidies. Nevertheless, the above argument from the competition view only hold true if private firms are more effective than their SOEs. Because of the ambiguity of this matter, from a theoretical point of view, it is unclear as to whether or not ownership form determines relative profitability or for that matter, efficiency.

Over fifty years ago, various economists and politicians advocated that state ownership of firms in industries resulted in market failures. Added to this, due to the notable failures of SOEs the world over, and the developments of contract and ownership theory, the production in state owned firms along with its benefits have been thrown in the limelight (Shleifer, 1998). As a consequence, privatization of SOEs have become rampant with the aim of enhancing firm performance and stimulating corporate entrepreneurship; a competitive advantage that creates value in a firm (Baumol, 2002).

According to Zahra (2000), privatization typically leads to ownership change and corporate governance: both having a crucial role in entrepreneurial behavior. A review of literature reveals two major reasons for state ownership failure:

- i. Literature regarding management revealed that the managers of SOEs are recipients of poor incentives and poor monitoring which explains the inefficient performance of the said enterprises. On average, SOEs are not traded on the stock market and they are primarily controlled by the state and thus, no threat of takeover exists. In addition, creditor's disciplinary requirements do not play a great role and as SOE loans are public debt and losses they are covered by subsidies. On top of the above reasons, the board of directors (BOD) of these enterprises fails to carry out corporate governance practices and management turnover is based on politics as opposed to market forces (Vickers & Yarrow, 1988).
- ii. Literature also underscores the political economic aspects of public enterprises. Managers of SOEs generally pursue their objectives to achieve political capital and therefore, result in inefficient decisions. Due to political interference in the SOEs production, excessive employment, poor choices of products and location coupled with inefficient investment are rampant (Barberis & Vishny, 1996; La Porta & Lopez-de-Silanes, 1999). Moreover, SOEs are often exposed to soft-budget constraints that give them room to perform such practices as state governments do not want to risk the political cost owing to firm's bankruptcy (Lopez-Calva & Sheshinski, 1999).

The above two stands in literature have been backed by empirical research concerning SOEs and firm performance after privatization was introduced in various countries (Boardman & Vining, 1989). Due to the SOEs failures, governments in over one hundred countries have been systematically carrying out privatization programs in the last two decades (Megginson & Netter, 2001). According to the

OECD (2001) report, all over the globe, the annual revenues resulting from privatization experienced a significant increase in the late 1990, peaking in 1998 at over US 100 \$ billion.

As expected, industrial countries such as US and Canada have carried out these activities to a lesser extent compared to developing countries. In the years from 1984-1996, SOEs participation in industrial countries resulted in a decrease from 8.5 to 5 percent of GDP while in the context of developing countries SOEs production had a gradual and steady decrease. Based on the study of Lopez-Calva and Sheshinski (1999), from 1980 until 1997, SOEs activities proportional to GDP showed a decrease from 11-5 percent in middle-income countries and from 15-3 percent in low-income countries. However, the scenario was more aggressive in the developing countries as unemployment became rampant. In middle-income economies SOE employment decreased from 13-2 percent of the total employment and finally, in the low-income economies, it went down from 20 to 9 percent. These numbers encompass regional differences in both size and economic importance of the state owned production.

In the context of Sub-Saharan Africa, a few states have a gradual SOEs eradication strategy. Up until the current times, African privatization activities has only been notable in a few states while state owned production constitutes over 15 percent of the region's GDP. On the other hand, in Asia, several states have not aggressively pursued any privatization strategy. For example, China is still in the early stages of privatization and has only, in recent times, allowed the privatization of stated owned enterprises with a significant concentration on the largest ones. India has primarily

ignored privatization as based on a report, 43 percent of the country's capital stock is state-owned. However, based on multinationals and private equity funds in the country, it seems that state owned enterprises will have a shorter life than expected although contrary to this expectation various governments in the region still opt for controlling their assets in the energy, telecommunications, transportation and banking sectors.

As evidenced by the results of Kikeri's (1999) study, the movement towards privatization is slow in some Asian regions, which leave ample control to administrators. SOEs were reported to contribute 20 percent of GDP and 5 percent of employment. On the other hand, the urgent movement towards privatization of SOE in Central Asia, Eastern Europe and the ex-Soviet Union resulted in the voucher-based mass privatization strategies. In addition, Bolivia and Zambia have been reported to pool equity and distribute them to citizens in a non-voucher variation of privatization.

Other countries have made use of discounted public offerings to garner worker participation in privatization, the case for broad-based privatization strategies:

A. Politically popular

The broad-based ownership strategies attempt to spread share ownership to the whole population and including particular parts of the population such as the poor or the ethnic minority.

Privatization is generally hindered owing to the popular belief that its benefits are only leveraged by the powerful few or the foreigners but through share ownership, policy makers and legislators have the political veneer to create reforms convincing resistant legislative entities and due to broad based ownerships resulting in major public participation during privatization, it provides support for a sustainable agenda.

B. More redistributive

Contrary to traditional privatization methods, broad based ownership programs enable governments to resolve concerns regarding wealth distribution through voucher's, discounted shares, and limited participation in collective investment programs to low-income groups.

For instance, in the context of Malaysia, a collective investment program is carried out to redistribute wealth to a poor and unrepresented ethnic group. Also, in Korea, where public offerings are made, low-income groups are offered deep discounts on share purchase. The vouchers' impact on incomes is quite significant as evident in Czech Republic and Mongolia where the market value of vouchers are received by every participant with half the annual per capita income.

C. Helps capital market development

Majority of the under-developed countries are unable to make use of public offerings due to weak or no capital markets. Broad-based ownership programs carry out its role in developing and developing the capital markets and related institutions. These

strategies offer citizens the right to share ownership and encourage trading, savings, and an investment environment. Voucher based programs generally lead to the establishment of mutual funds offering risk wary citizens the chance to invest in various portfolios. Share sales and trading among the funds lead to secondary trading within equity markets and initial public offerings of state-owned equity may lead to the effective deepening of capital markets.

D. Voucher-based programs Voucher programs

This type of programs are rampant in the Czech Republic, Moldova, Mongolia, Romania and Russia and are popular to policy makers due to its simplification and acceleration of the privatization of various SOEs, resulting in the attraction of foreign and local investors. Vouchers were first introduced as a tool to facilitate privatization programmes, although they are also useful in various kinds of programmes. For instance, they can be used in forcing social and political entities to distribute wide ownership or to use privatization benefits for the betterment of the disadvantaged portion of the population.

In the context of Estonia, trade sales are now used with voucher auctions as voucher-based programs normally distribute certificates or coupons to participants to the programs. When the participants exchange them for shares in SOEs in financial intermediaries, these will bid their accumulated vouchers for SOEs shares and in majority of cases, it is allowed to trade vouchers for cash freely.

The extent of privatization differs from one nation to another and as the assets controlled by the state lead to inefficiency, both unemployment and low productivity/efficiency gives credence to the importance of privatization and related information for the development of future programs. This information also plays a part in the development of markets and therefore, differing strategies of privatization are now being utilized in least developed nations which may help them to initiate their stalled programs.

Several established theories, the property rights theory, the principal agent theory, the public choice theory, and competition theory (Vickers & Yarrow, 1988) amongst others, predict privatization will bring improvement on firm performance. These theories are a portion of a big body of economic knowledge of ownership and role for government ownership of productive resources (Megginson & Netter, 2001).

The reason behind the idea of privatization may encapsulate any or all of the following; financial, political and economic motivations. Based on the study by Vickers and Yarrow (1988), financial motivations are considered as revenues acquired by the country as a result of the sale of ex-SOEs or SOEs and the benefits arise from the eradication of government subsidies from the said enterprises.

The revenues acquired through privatization eventually contribute to the minimization of the public deficit of the economies that started the privatization programme. Politically, privatization of SOEs is justified as the state lacks the skills in effectively managing public enterprises; the enterprises have ambiguous goals and

the market's great appropriation of resources to privatized firms. In addition, privatization usually brings about the inflow of foreign investment to the country.

Hence, when privatization is carried out, it is akin to promoting what is termed as 'popular capitalism'. As for the economic motivations of privatization, this hinges upon the effective performance of private firms compared to public ones. The advocates of privatizations are supported by the findings in many studies concerning private ownership's eventual result in greater levels of productivity growth, greater efficiency and better firm performance (Dewenter & Malatesta, 2001).

Various authors have supported that a great increase in performance has been observed in privatized firms (Megginson *et al.*, 1994; D'Souza & Megginson, 1999; Wei *et al.* 2003; Boubakri, 2005; Denzin, 2005). However evidence has also been forwarded about privatization's inability to lead to systematic enhancements of allocative or productive efficiency (Pestieau & Tulkens, 1993; Vickers & Yarrow, 1988; and Martin & Parker, 1997). Moreover, four alternative theories are used to expound on the higher effectiveness of private ownership compared to public ownership as well as the economic efficiency gains that are expected to arise resulting from the transfer of ownership and control of assets from public to private investors. These theories are described in detail in the next sections.

3.3.1 The Property Rights Theory

The rationale behind the property rights theory has its basis on the incentive systems that are attributed to private enterprise. Property rights often influence incentives and

individual decision-making units and this is the reason why private enterprises are more superior to their public counterparts even though both are operating under similar profitable conditions (Shehinski & Lopez-Calva, 2003). This superior performance originates from the notion of ownership in private firms as property rights theorists posit that public owners is not as efficient as private ones (McKean, 1972; Furuboth & Pejovich, 1972).

This particular argument is attributed to three factors which are ownership specialization, risk bearing and ownership transferability of incentive and monitoring systems resulting in various factor combinations and therefore varying results. In the context of private enterprises, property rights can be transferred without much fuss but in public enterprises, this is not the case. Transferability of property rights means both costs and rewards of economic activities are directly received by the owner of the property rights and it provides comparative advantage effects through the development of ownership specialization activities whereby owners consider their valued use as inputs (Davies, 1971). The scenario can be further clarified by stating that in private ownership, rewards and costs are directly associated with the person taking the risk while in public ownership the owners do not bear the brunt of the risk and specialization.

According to property rights theory, the distinction in the incentives between public and private enterprises may also explain their relative efficiency (Furuboth & Pejovich, 1972; McKean, 1972). In other words, private owners face incentives that make them monitor their managers and employees; incentives that motivate them to be more effective and to be disinclined to get involved in behavior that goes against

the maximization of the owner's profit (Yoder *et al.*, 1991). The effectiveness of private ownership of firms in comparison to public ownership can be categorized into five; profit-centered objectives, flexible implementation, incentive plans for employees, budget constraints and external control.

The property rights theory asserts that the more attenuated property rights are, the lower will be the efficiency of enterprise production as attenuation decreases the rewards and penalty systems that are imperative in cost controlling behavior. In sum, the theory holds that private enterprises are more efficient production wise compared to their public counterparts because the public enterprises are not vulnerable to external forces in the likes of takeovers and mergers.

3.3.2 The Principal Agent Theory

The theory stresses on the distinction in the tools used for monitoring and the incentives which are offered to both public and private managers acting as shareholders' agents with welfare maximization for the public managers and profit maximization for the private managers (Vickers & Yarrow, 1988; Bos & Peter, 1991).

The theory originates from the information asymmetries of the public enterprise and the reasons for a private enterprise's efficient production (i.e. the presence of bankruptcy/takeover or shareholder control). The notion of agency appears when a principal (a shareholder), uses their delegating powers to hand over decisions regarding the use of their property rights to agents (managers). The agency issue

comes up when a distinction is made between ownership and control of enterprise, on the basis that owners and managers have differing objectives. In other words, the manager's actions may not always be in consideration of the owner's interest, which negatively affects the performance of the firm (Alexander, 2001). On the other hand, the principal is desirous of the agent to act in consideration of their interest but he/she is not well informed of the complete scenario and the agent's behavior behind closed doors (Vickers & Yarrow, 1988). A monitoring issue thus arises which bars the principal from telling the agent about the correct action to take. In addition, because the principal is unaware of the agent's action, this creates problems for the former in finding out the incentive structure for the agent so that he may act for the maximum benefit of the principal. In other words, the principal-agent theory attempts to find out the optimal information issue. The major issues the public firms face are linked to both information incentives and commitment. Information imbalance appears due to the agent's distinct sets of information, which they find valuable in order to have the upper hand. This imbalance leads to the principal's monitoring problem, as it is not possible for them to observe their agent's activities.

Moreover, this information imbalance results in the negative selection and ethical issues that needs different incentive systems for their solution in private and public sector owing to their distinct performance levels. Adverse selection and ex-post costs are problematic to both public and private firms, as both will maximize agency cost in the two contexts. When this happens, the basic effective design for the agent is such that he acts in consideration of the principal's interests. This encapsulates optimal contractual agreements and monitoring techniques. In the studies carried out by Yarrow and Vickers (1998) and Bos and Peters (1991) principal agent theory are

used in their application of privatization cases. In the context of a public firm, the government is the principal while in the private firm; the shareholders are the principals with the managers acting as their agents in both contexts.

Based on principal-agent theory, principal and agents working in private firms are more knowledgeable of what is going on in the firm and the market compared to their public counterparts. In addition, managerial effort is reported to be greater in the former owing to the profit incentive at work and efficient monitoring. While managers in private firms are selected for their efficient running of the business, agents in public firms or SOEs are most often than not chosen for their political skills, their methods of addressing political concern and how good they are at asking for assistance.

Two effects have been noted in the shift of ownership from public to private sector and these are; a shift in the objective from one laden with welfare objectives to one that has profit maximization objectives and a shift in the incentive structure by relating reward to performance level in private ownership. The inevitable shift towards profit maximization may encourage higher prices and a foregone locative efficiency although firms are notably marked with increased operational or productive efficiency. Contrary to popular belief, agency problems are not confined to public firms. Agents managing SOEs are commonly called bureaucrats who are out to maximize the utility of resources while those managing private firms are called managers whose sole objective is to maximize profits; the difference between the two lies in the manager's objectives and in their social welfare maximization (Shapiro & Wliing, 1990; Vickers & Yarrow, 1991). The question lies on whether government objectives are sold off to the private sector through an idea action

technique. According to Sappington and Stiglitz (1987), there are certain conditions that the market can go through, as there are no suitable contracts covering the issue in public enterprises.

In the contracts between private firms, the government is usually the third party who makes sure the enforcement is carried out. On the other hand, public enterprises' contracts with the government lack commitment, as there is no third party. This is further elaborated by Yarrow (1986) who emphasized on the significance of the shift towards privatization in light of market structure, competition and regulatory policy governing the shift. He argues that the market as a control mechanism is not a perfect one and therefore, incentive failure often appears when monitoring enterprises. In sum, privatization is the answer to the principal-agent issue and it creates an informational hindrance between public managers and ministers, which leads to increased efficiency.

3.3.3 The Public Choice Theory

The theory follows the bureaucratic approach where the public firms are viewed as tools that improve the utility functions of politicians; for instance, for increasing votes and budgets (Niskanen, 1972; Buchanan, 1983; Boycko *et al.*, 1996). Advocates of the theory believe that government sectors' aims are maximization of budget, risk aversion, employment and investment instead of maximization of profits. A model of privatization was put forward by Boycko *et al.*, (1996) which falls within the ambit of the theory.

The model is designed to reveal that privatization will result in effective restructuring of public firms that are inefficiently producing at higher levels with the aims of maximizing employment; efficiency is only possible when cash flow rights shifts from government to private hands. If this happens then it will be almost impossible for the government to commit bribery by offering subsidies in exchange for inefficient production levels. In other words, eliminating the 'soft budget constraint' is imperative for performance enhancement. In addition, proponents of the theory believe that both politicians and state bureaucrats are characterized as self-serving entities maximizing their interests as opposed to the public interests. This view is supported by Niskanen (1972) and Buchanan *et al.*, (1983) among others.

Government failure in running SOEs owing to self-interested individuals is rampant in the public firms. Moreover, the agents or managers of these firms are not controlled by market considerations and it is easier for them to request for subsidies and disguise inefficient management with the fulfillment of social goals, most particularly in the developing countries.

There are empirical evidences that point out to the fact that public enterprises are inefficient because of the politicians' hand in running them as evident in excess labor, excess wages, imperfect input costs, ineffective marketing techniques and lower prices. Some proponents argue that politicians are only focused on getting votes and hence, they maximize employment. Owing to information imbalance between bureaucrats and the public, the former knows more about the results of budgetary change and the public is unable to monitor government spending while increased employment is experienced. According the proponents of the theory, this is

allowed to happen as government intervention in every aspect is considered effective because government is considered as a benevolent guardian to the masses and furthermore, the identification of efficient policy outcomes comes at no cost (Krueger, 1993). An argument against this notion cites the developing economies policies, which are imposed solely for strategic development (El-Naggar, 1989).

The above scenarios leave bureaucrats with a lot of room to maneuver to impact private economic activity through their authority of providing permits and licenses; a phenomenon termed as rent seeking, which has been notably increasing in the public enterprises management. In consequence, rent seeking is evident in the form of lobbying efforts, activities to get a hand at decision-making and strategies to move in or out of the affected activity (Buchanan, 1983). Because of this, privatization has become recourse to government / public firms in the early 1980s. In addition, the neoclassical counterrevolution theory stressed on the government's inability to provide goods and hence, the solution was to privatize markets where the state would then facilitate production through the establishment and monitoring of institutions.

Privatization involves the state's role as a third party to the arrangement between private parties. The idea of privatization has been supported by the significance of contracting and regulating quality, healthy and ethical competition and the innovative potential of private firms (Shleifer, 1998).

3.3.4 Competition Theory

Competitiveness is a central concern of both emerging and transitional economy as characterized by both advanced and developing countries respectively, in an increasingly open and integrated world economy. Sheshinski and Lopez-Calva (2003), suggested that, firms that belong to competitive sectors, not to utilities, show higher improvements in performance and efficiency. In other words, privatized firms during periods that coincided with expansive economic cycles also show larger performance improvements (Villalonga, 2000).

Mostly privatization of state owned monopolies frequently occurs simultaneously alongside deregulation, in other words it means policies to increase the competitiveness of the market. This increase in competition can be the greatest incentive to improvements in efficiency and productivity. Conversely, it is noteworthy to understand that privatization does not necessarily increase competition; but mainly depends on the nature of the market. For instance there is no competition in water. But, there is competition in telecoms transportation etc.

The motives behind many privatizations do not only aim at the sale of public capital, but it also includes various measures to increase competition. They (Vickers & Yarrow, 1988) argue that these measures may exponentially contribute to improving performance in a great deal as much as possible even more than the change of ownership. Previous empirical studies revealed a positive relationship between competition and increase in the sales of privatized firms (Megginson *et al.*, 1994). To cap it up, the transfer of ownership from the public sector to the private does not

necessarily guarantee that privatized firms will be more entrepreneurial and innovative; there may be need for integrating competition for this to occur (Ramamurti, 2000).

(Michael, 1990) postulates that after privatization, firms in more highly competitive industries increase their level of corporate entrepreneurship to a greater extent than firms in less competitive environments. In line with this some studies overwhelmingly agreed that the internationally competitive industry will increase income and quality of life for its employees, later expanding its horizon of influence to suppliers and other related firms and industries. In addition, Michael (1990) submits that in the conventional wisdom, competitiveness is productivity and, in business terms, productivity is in turn the value of the output produced by a unit of labor or capital. A firm that enhances the quality of its output will increase its competitiveness. Intuitively a firm that uses labor or capital more efficiently to produce output will be more competitive and highly productive. Additionally state or national governments can complement the effort of firms in their quest to increase the worth of what they produce through laws, regulations, institutions and a vibrant strategic allocation of national resources, all of which can contribute to a more favorable economic environment that allows firms to thrive well and be more productive.

Competition theory, as it is known, one of the important factors for privatization's success. This directly affects the firms' behavior. Under competitive market conditions, private and social objectives are more closely associated, so that private ownership is likely to have an advantage (Vickers & Yarrow 1991). The reduction in government ownership is not the only factor that improves the performance of

privatized firms, but also competitive environment and capital market disciplines increase the efficiency of these firms. Competition can greatly improve monitoring possibilities and, hence, incentives for productive efficiency. Product market competition is important for performance not only for familiar reasons of allocative efficiency, but it also enhances productive efficiency (Vickers & Yarrow 1991). However, when competition increases, private ownership offers incentives and motivations for managers to proactively adopt profit-maximizing behavior, whereas this factor might be missing in their SOEs Counterparts.

3.4 EMPIRICAL EVIDENCE OF PRIVATIZATION

The empirical evidence can be divided into two distinctive groups that is the microeconomic and macroeconomic evidence. From the empirical point of view it could be classified into two classes of effects; first, the effect of the microeconomic of privatization, because it is more common and second, the effect of the macroeconomics of privatization.

3.3.1 Microeconomic Effects of Privatization

Most of the empirical studies on privatization recur to simple microeconomic performance indicators; particularly they focus on changes in labor productivity or in profitability (Megginson & Netter, 2001). Only a very few set of authors investigate social costs and benefits of privatization, and particularly their impact on prices and redistribution of welfare: examples of such authors are Galal (1994); Newbery and Pollitt (1997); Lopez-dze-Silanes (1997). In accordance with the line of the trend

worldwide, the pace of empirical works on privatization has also increased; notwithstanding with a microeconomic orientation that emphasizes efficiency gains (La Porta & D'Souza & Megginson, 1998; Boubakri & Cosset, 1998; Dewenter & Malatesta, 2001).

At the microeconomic level, the empirical evidence strongly revealed that privatization has positive relationship with profitability and efficiency. It was also evident that capital expenditures tend to increase after privatization. However the, evidence on firm-level employment is mixed – although for large firms employment seems to rise after divestiture. In an attempt to measure the effect, in terms of estimated total surplus in a counterfactual basis, welfare increases in almost all the cases under analysis. We will see analyses of some important results of two authors in detail (Galal, 1994; Jones, 1990). The authors presented results for twelve privatized firms in four different countries. The methodology used is counterfactual and makes projections of the performance of the firms under two scenarios, the privatized scenario and a hypothetical “public ownership scenario”. Comparisons between those two situations measure the changes in welfare. The outcome of their study shows that in all the cases examined, except the net effect of privatization on welfare is positive. Astonishingly, workers welfare was tremendously improved in all cases investigated.

As it has been established in the theoretical part above the effect of privatization on consumer welfare is responsive to market structure. These studies show a well-pronounced positive effect of privatization on total welfare without negative

distributive consequences, (i.e. the distribution of the gains, were not compromised) although this result is determined by the partial equilibrium nature of the analysis.

Notwithstanding there is a piece of proof of the benefits from privatization in a small country, like, Costa Rica (Vickers & Yarrow, 1991). The first benefit reported is the elimination of the cost that these money-losing companies had for the economy. An estimate of the net present value (1998 prices) of the accumulated losses of the four companies – that is the cost for the country of the Convention for a Democratic South Africa (CODESA) experience, reaches an amount of USD 971.1 million, that is to about nine percent of Costa Rica's GDP in 1998 (Chamberlain, 2009). Since the private management took over, these firms have paid taxes on the profits generated, for about USD 10 million in total (cumulative). After being money-losing companies, their profitability has reached 12 percent per year (CATSA), 6.2 percent (FERTICA) and 7.1 percent (CEMPASA). In the case of CATSA, the capacity utilization increased from 57.1 percent to 92.1 percent, even after new investments in capacity.

Also there was sales increase of 46 percent for (CEMPASA) between 1990 and 1993. Sales per labor- which can be proxy as a measure of productivity, increased to 92 percent in the case of FERTICA, while ALUNASA's sales increased to 470 percent in nine years (1989-98). Although they are firms in competitive sectors yet they are still protected by regulations and trade limitations, which have improved profitability and efficiency. This type of study focuses on one specific country and analyzes evidence across industries. A good example of most consistent evidence is that for Mexico (LaPorta & López-De-Silanes, 1999). Further earlier work by

Barberis (1996), provided evidence of the efficiency of privatization of retail shops and small businesses in Russia. This fact was confirmed by Earle (1994), which show similar evidence for small businesses in Central Europe. LaPorta and López-De-Silanes (1999), study, performance analysis of 218 enterprises in 26 different sectors, privatized between 1983 and 1991 was investigated. One of the most striking qualities of this work is that the authors decompose the changes in profitability observed into price increases, labor reduction, and productivity gains. Also, changes in taxes paid by the firms are quantified.

This analysis provides clue to two criticisms usually put forward against privatization: i) that profitability of the firms increases at the expense of society through price increases, and ii) that profitability experienced in privatization comes at the expense of workers, whose labor contracts are less generous, and stand the risk of layoffs. To disabuse the views of the antagonists of privatization, available results show that profitability, measured by the ratio of operating income to sales, increased by 24 percentage points. In addition to this, it is also shown that deregulated markets bring about a faster convergence of the performance indicators of the privatized firms towards the industry-matched control groups. When competitive and non-competitive sectors are compared, not only that the former has higher increases in profitability as compared to the latter, but those changes are related to higher gains in efficiency and lower price increases. The privatized firms went from receiving a positive subsidy from the government to a net tax payment after the sale.

In order to review the industry-specific effects, therefore, increase in profitability associated with changes in the macro environment is well taken care of, in the form

of controlled variables. Beside this a regression of analysis, whose aim to identify the relationship between role of market power and deregulation in determining privatization outcomes, which was measured by the performance indicators were constructed. There were three deregulation indicators were used, these were; the existence of state-imposed price and quantity controls, barriers to foreign trade, and restrictions to foreign ownership.

To understand the role of market structure LaPorta and López-De-Silanes (1999) used a dummy variable that was assigned the value of 1 if the “privatization prospectus” described the firm as monopolistic or oligopolistic, and zero otherwise. The outcome of the regression results shows that less regulated markets make possible the “draw near” of privatized firms’ performance indicators as far as market benchmark is concerned. However the data was not in support of the view that more concentrated markets bring about the firms to increase profitability by increasing prices and lowering quantities. Hence, market power dummy was not significant and therefore failed to explain the change in performance indicators.

According to Smith (1996), in their study in Slovenia, he uses a countrywide time series data with privatized firms from 1989 to 1992. The results, however, revealed that there exists a positive relationship between the private ownership and performance of the enterprise. A further study shows that when the effects of different types of ownership were examined, foreign ownership has a significant positive effect on performance.

This size of the firm has negative relationship between the ownership of the firm and performance of the enterprise. As it was reported in that study the employee owned firms perform well when they are small, but the effect of this type of ownership diminishes with size. Employee owned firms do better when foreign ownership is also present in the same firm. Some studies of privatization covering cross-country evidence will now be discussed, starting with a pioneering work by Megginson (1994); researchers have been using the data available for publicly traded companies that have been privatized to analyze different performance indicators on a cross-country basis.

Evidence shall be discussed here from Megginson et al. (1994) analyzes data for 61 companies from 18 countries and 32 industries that were privatized between 1961 and 1990 through public offerings. D'Souza and Megginson (1998), in their study; they compared pre- and post-privatization performance of 78 companies from 25 countries including 10 companies that were privatized between 1990 and 1994 through public offering. Their sample included 14 firms from the banking industry, 21 utilities and 10 from telecommunications. The largest data set was used in Claessens and Djankov (1998), which consist of 6,300 manufacturing firms in seven Central and Eastern European Countries (Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovak Republic, and Slovenia). The performance indicators that are analyzed in their study are related to mean and median levels of profitability, sales, operating efficiency, leverage, capital expenditures, and employment. Often no controls were constructed as to ascertain whether the markets are competitive or non-competitive, regulated or unregulated, and partial or full privatization. Available evidence shows that there was a better performance of the firms after privatization.

This is in agreement with the previous studies discussed above. Profitability increases considerably for different specifications. An appealing result was recorded in Boubakri and Cosset (1998), in that profitability increases more in regulated (or non-competitive) industries, while operating efficiency has little or no increase in those cases. It is, therefore become obvious that higher profitability does not necessarily mean higher efficiency and the connection between the two comes from the market structure.

The substantiation is in full support of the proposal that there is a certain degree of market power being employed by those firms. Moreover capital spending (investment) systematically increases in all cases examined, reflecting effect of growth and the restructuring that takes place after the sale. As well as increases in employment in all the cases investigated, including developing countries, evidence on employment seems to be contradictory with the findings of LaPorta and López-De-Silanes (1999).

There are two likelihood answers to this discrepancy; first, the fact that the cross-country studies analyzed use only data for firms that were sold via public offerings generates a non-negligible selection bias. One would expect those firms to be the ones with higher potential for profitability. Second, the country-specific study includes data from three years before privatization for all the firms, of which there is probability that the analysis may be capturing the elimination of labor redundancy before the sale. Nevertheless in all the cases, evidence shows that fully privatized firms perform better than partially privatized ones. This fact is also confirmed by

Frydman (1997, 1998), in his study of economic transition also Claessens and Djankov (1998).

3.3.2 Macroeconomic Effects of Privatization

Unfortunately various discussions by the available literature on the macroeconomic effects of privatization are not as robust from the theoretical standpoint as that in microeconomics. There are few theoretical models that connect the restructuring at the microeconomic level such as privatization. There are, however, some country studies that presented data on the interaction between privatization transactions and macroeconomic variables.

The most important cause why this work has not been done comprehensively is the complexity involved in isolating or distinguishing the effect of privatization from other events that have an influence on aggregate measures. The first interaction observed between privatization and macroeconomics was as a result of the macro instability, especially in the area of large budget deficits, which tend to accelerate privatization. The effect of poor public sector financial status on the willingness to reform and on the political acceptability of such reorganization results in a clear relation between higher public deficits and faster public sector restructuring.

This is in line with the evidence shown in López-De- Silanes *et al.* (1997), among some others. According to the record, Privatization database of The World Bank, data on SOE activity is consistently agreed with the share of SOE employment to GDP, analysis revealed that in low-income countries share of SOE to that of

employment GDP decrease from around 20 percent to 10 percent. Surprisingly a radical fall in the case of middle -income economies was observed which is currently below 10 percent, after attaining more than 14 percent.

There are various evidences supporting the argument that privatization may have some contributions to the reduction of the burden on public financing. The result of the post privatization shows that after reform, low-income countries were successfully eliminate net subsidies to public enterprises on the average, from almost six percent to only 0.5 percent of GDP.

In the case of middle income countries, SOEs were expected to show a surplus in their operation, this giant stride record could be traced to the reforms of management and introduction of competition, as well as for the fact that the firms deemed “best” are those that have remained in the control of the government. Good examples of those “best” firms are oil companies and natural monopolies, like electric utilities. Interestingly, trend in fiscal deficit is plausible although still negative, and largely due to the late reformers. On a general note, the most reasonable trend is that of the deficit in upper middle-income economies in which the most hard-liner reformers can be found, examples of such are Argentina, Chile, Mexico, and Malaysia.

One important effect observed in all income groups is that on the financial sector development (Demirguc & Levine, 1994; Mclindon, 1996), their stock market seems not to be stable. Whereas, there is a direct opposite effect in high-income countries where the capitalization of the stock market remains basically stable, it was generally viewed that for low-income countries the impact of the reform on the indicator of

capital market development is considered highly reasonable. A positive trend was observed for all of them. With the advent of the reform, upper middle-income countries have also reached levels of capitalization, which have similarity of those in high-income economies (around 55 percent of GDP).

A fairly high difference between the lower and middle-income class, was experienced, Lower middle-income economies are around 25 percent, and the low-income group is about 16 percent. Unexpectedly, unemployment, conversely, shows a very unpredictable pattern across countries. Insistent reformers show an increase in the unemployment rate, as well as the late and less aggressive reformers. Examples of the aggressive reformers are Argentina and Poland, where the employment rates shoot up to nine and eight percentage points, respectively. France and Hungary persistently witnessed unemployment growth of 3.5 and 3 percent, respectively, during the same period. Hence it is impossible to draw any concrete conclusion in terms of privatization on the overall unemployment rate. By and large available evidence indicates that structural reform has in general induced positive changes in key macroeconomic variables. Although not all these positive changes can be ascribed to privatization nor its specific contribution has been known, we can conclude that both the public sector's financial health and an, enabling macroeconomic environment have been fuelled by the reduction of SOEs activity around the world. This eventually has also led to the foundation of a better environment for private investment to thrive well as well to compete as expected.

3.5 EFFECTS OF PRIVATIZATION

Privatization is often considered as a way to enhance SOEs performance. Many studies conducted a comparison pre- and post-privatization performance measures in an attempt to examine the effect of privatization on their financial and operating performance (Megginson, 1994; Boubakri & Cosset, 1998; D'Souza & Megginson, 1999).

Megginson, Nash and Randenborgh (1994) were the pioneering authors to conduct such comparison and to publish a study using privatization. Therefore, it is known as the MNR methodology (Megginson & Netter, 2001). The effect of privatization on the privatized firm's performance has been gauged through the examination of the indicators of the firm's performance. These include profitability, efficiency, labor productivity, investment, outputs, dividends, exports and financial leverage. The phenomenal performance noted stems from the fact that once the private sector gets a handle on SOE, profitability is given top priority. In addition, privatization frequently brings about concentration of ownership structure in the firm and the appointment of experienced and qualified personnel.

Nevertheless, SOEs were characterized by high inefficiency and slow growth, excessive bureaucratic issues which prevent quick decision-making and innovative changes. Moreover, the constant government political intervention along with frequent administration changes became an issue. The labor trade union was also reported to over control the SOEs (Veljnovski, 1987).

Following the successful privatization of BT in 1984 with the help of Thatcher's administration, it took the status of an economic policy that is often employed to minimize the financial pressure on the government budget and the concern to stop SOEs from failing when it comes to the inefficient employment of resources (whether financial or operational). Whether or not privatization could translate into wealth creation for investors who buy the spread and acquisition of shares ownership, restructuring and refocusing of SOEs economic aims and preventing influence of trade labor unions, will bring about maximization of operational and financial performance is yet to be known.

The challenge in the interpretation of indicators (both operational and financial) of performance of SOEs after privatization, in and outside the business environment economy should be stressed. For instance, negative financial performance may go hand in hand with great internal efficiency if the performance stems from government policy or of price control. Nevertheless, since SOEs often respond to expected market failures, maximization of profit and other related measures might not be considered as an accurate description of their negative performance over time (Ramanadham, 1993).

This study contends that the SOEs failure may stem from the increasing demand for goods and services that are faced by their steady but slow development to reach maximum productivity movement as opposed to the overall shift production function to satisfy the demands and steer clear of negative performance (operational and financial).

According to Yarrow (1986), competition and accountability are more effective compared to privatization in the promotion of both efficiencies (financial and operational) although this contention is limited to a small number of companies in the U.K. On the other hand, Ramanadham (1993) claimed that privatization may have a higher level of success within a short period of time either through the rise of stock market price or in the degree of efficiency or productivity which would bring about instantaneous economic growth and development. On the contrary, failure of privatization leads to the perception of its unattractiveness. It is therefore more feasible to re-engineer SOEs by transforming them and by establishing a transparent regulatory framework to counteract the failure when the privatization objectives are not satisfied as expected, to keep the firms operational and financial performance up to par following privatization.

Another contention along this line was provided by Megginson *et al.* (1994), who provided evidence from the theoretical and empirical perspective and stated that private firms will always be better in performance compared to SOEs as privatization leads to increased financial and operational efficiencies regardless of the business environment. In addition, the privatization leads to the promotion of economic efficiency and public confidence (one of the main property right theory's objectives) in an industrial capitalism and hence SOEs should be sold off prior to the realization of efficiency gains. He further added that the privatization success turns business attitude towards ownership, economic responsibility and the enhancement of corporate performance. It also enables the government to play a key role of regulating the business environment leaving the investors and individuals to be firm

owners as they will perform better when faced with limited resources and market forces.

According to literature on privatization, not all privatization programs carried out around the world are successful . However, it is important to note that some of these successes are not achieved entirely as a result of privatization. As Dewenter and Malatesta (2001) have shown, governments efficiently restructure at least some firms before selling them. For example Japan National Railway reduced its workers by approximately 200,000 and was split into seven separate rail companies before any share was sold to investors. If government restructures firms and improves their performance before privatization, then improvements cannot be attributed to change in ownership. Rather, the political impetus behind privatization first impels governments firms to operate more efficiently. If this is the case, then what is the role of privatization? One is of the view that while policy changes (in the form of restructuring) can improve performance of government owned enterprises; such improvements may dissipate overtime without the added discipline of private ownership. There is therefore the need for privatization not only to achieve efficiency gains but also to sustain them in the face of changing political, social and economic circumstances.

Many privatization studies showed positive financial results from ownership structure changes in SOEs. A case in point, Boubakri and Cosset (1998) analysed firm performance among 79 newly privatized firms in 21 developing countries with which most are characterized as middle income economies including Bangladesh, Jamaica, Pakistan, Nigeria and the Philippines from 1980-1992. The study concluded

that at an average rate, the firms showed significant increases in the factors such as profitability, operating efficiency, capital investment spending, output and employment and dividends, and they also showed a decrease in leverage. Specifically, in Bangladesh, 7 among 10 loss-making manufacturing firms revealed increased profitability, output, sales, and capability of use and labor productivity along with decrease in unit costs.

It was also notable that firm privatization in developing countries has led to net income sales and net income stemming from assets by 100 percent and 30 percent respectively (Boubakri & Cosset, 1998). In addition, net profits improved from sales by 25 percent and net income assets by 20 percent from initial public offerings of 85 companies from 28 countries. On this basis, Boubakri and Cosset (1998) stressed on the privatization advantages to the firm's private investors who possess high motivations to bring about efficiency and in turn, enhance the overall organization. Furthermore, in developing countries, studies concerning performance in pre- and post-privatization, documented their improvements. Despite the fact that these studies report hopeful results, some other studies show negative results owing to the strict requirements of success such political risks and the fit of local partner. In particular, more than 40 percent of cooperative activities between private multinational companies and public companies, in the context of Central Eastern Europe, did not succeed.

In the context of these mixed findings regarding privatization, its effect appears to hinge on factors that are firm-specific like external factors and those that are external to the firm with the former including resource allocations (human resource along

with innovative technology) and ownership transfer which can all ensure successful result. Meanwhile, external factors refer to those factors that are not present within the boundaries of organization; these include the competitive environment, regulation and capital markets. For example, the development of stock markets is an external factor which reinforces and provides the required environment for the transfer of a significant amount of government assets to the public and urges the creation of information and balance among private investors.

In addition, a competitive industry is needed to ensure successful privatization as competition contributes to the privatized firm's survival in terms of efficiency. Moreover, country's characteristics may also impact privatization specifically, upon organizational outcomes. In other words, countries with fair regulatory and legal systems are capable of instilling higher confidence in private investors when it comes to investing in privatized firms by guaranteeing ownership rights and allocation of assets.

On the basis of the prior argument, it can be concluded that privatization has its advantages and disadvantages. Private firm's investors can bring with them management skills and technology enabling the firm to collaborate with governments and other private parties. Nevertheless private investors' partnership with the government may lead to a disagreement because of the differences in culture, experience, technology and management style that all lead to negative outcome of privatization. On the other hand, privatization may change the culture, structure, system, strategies of the organization and decision makers which may lead to

advantages and disadvantages according to how flexible the organization is and how its human resource is efficient when it comes to adaptation.

In the context of the fiscal impact of privatization government's budget is affected by either the direct or indirect privatization at the macro level. In state ownership, it is basically the government who finances the operations by the provision of subsidies, lending and transference of capital. In return, the public enterprises help increase government revenues by paying taxes, and through dividends and debt service payments (Gupta, 1999). Following privatization, there will be a halt to the flows between the public firm and government budget and the government will instead obtain sales proceeds and taxes from the profits of the newly privatized enterprise. Moreover, there are also several interactions among state enterprises, privatization and fiscal policy as public firms' losses are made one of the fiscal problems; privatization is usually encouraged during fiscal crises. State enterprises produced an average deficit of 4 percent of GDP in Less Developing Countries (LDCs) in the later parts of the 1970 (Floyd, 1984).

Additionally, fiscal crises bar the control over state enterprises and their losses through owing to the weakened administrative and monitoring role of the state. And also, state enterprises' investment is basically targeted for budget cuts and without them, the product quality, the firm's infrastructure and the services provided by these firms is negatively affected. These named factors leave a negative image to the companies and encourage the proponents and advocates of reform and privatization. Therefore, privatization is more often than not a result of a fiscal crisis (Fishlow, 1990). Hence, it is logical to state that privatization is viewed to play a huge part in

fiscal solution (Pinhero & Schneider, 1995) by providing huge revenue that is utilized on a non-permanent basis to offset the deficit and to get rid of the government's burden of subsidizing public enterprises that are facing losses. This shows that eradicating state subsidies to public firms creates a positive effect.

In most cases, governments make use of revenues of privatized firms to minimize the stock of public debt. Eventually, privatization revenue is utilized as a tool of the government's fiscal performance. Even though revenues are primarily used to minimize debt stock, instability in the fiscal performance imply that revenues are used to indirectly finance government's current expenditures or to enable it to increase its borrowing capacity. This can be clarified in the instance of Brazil who at one time tried to sustain the nominal value of its currency, which was overvalued at that time, through reserves and privatization. The potential fiscal advantages were eventually lost because the Brazilian government made use of the reserves to keep the currency's status. Macedo (2000) shed light on the incident by stating that the possibility of the development of privatization revenues in the 1990s gave Brazil the needed time to sustain the nominal value of its currency until the crisis in 1998.

In a similar scenario but in the context of Argentina, Mussa (2000) stated that privatization revenues in the 1990s were crucial for three of four years during that decade but although with their presence, the government did not succeed in generating fiscal surpluses required by the nation. Therefore, both governments (national and sub national) continued borrowing and consequently, the privatization revenues disappeared altogether with the currency crises coupled with the debt default in the year 2002.

Theoretical approaches to the fiscal impulse or what is well known as the revenue maximization approach to privatization are coupled with empirical ones. For instance, in Galal, (1994) empirical study, nine out of twelve cases were revealed to have a positive privatization impact upon fiscal impulse. In the Malaysian context, the government obtained increased corporate taxes from the Kelang Container Terminal and took advantage of the appreciation of 49 percent share.

In the context of Argentina, Shaikh (1996) revealed that five cases were revealed to have positive fiscal impact owing to the firm's higher income taxes, higher indirect taxes, higher output and eradication of subsidies following privatization. Jeffrey (2000) review of eighteen countries carrying out privatization revealed increased gross receipts constituting two percent of the annual GDP; although the long-run effects on government revenue were not obtained from sales proceeds resulting from one time sale of an asset but from the eradication of subsidies and from increased tax revenues in private enterprises.

Mexican, Cote'de Ivorean and the Mozambique governments obtained more from privatized enterprises in the form of taxes compared to direct proceeds of sales. Similarly, in the context of Bolivia, the first four years after sales, the government earned a positive financial return in the amount of US\$429 million from taxes. However, contrasting results came from other countries like Chile and Brazil because support for revenue claims as a result of privatization failed to help in fiscal crises resolution. For example, according to Galal (1994), the Chilean treasury lost dividends and taxes amounting to 22 percent of the sale price of the Electricity

Company, Chilgener and similarly, in Mexico, the Telephones privatization's net fiscal impact amounted to zero.

In sum, privatization does enhance the performance of public enterprises turned private (former SOEs) as evidenced by researchers through performance indicators, firm efficiency, profitability, employment, wages and salaries, government budgets which have all improved following privatization.

3.6 PRIVATIZATION AND PERFORMANCE

The literature reviewed in the previous section generally found that governments all over the world have embraced privatization programs for different goals. The theoretical battle has been overwhelmingly in favor of private over state-ownership despite the lack of convincing empirical support. Recently, however, academic and professional researchers have been able to generate a wide range of empirical studies on the impact of privatization on the overall performance of the divested enterprises.

This section, therefore, seeks to answer the following critical empirical questions: Aside from theoretical predictions, how well does privatization work in practice? Has Post-Privatization performance improved as expected? How does privatization affect the firm's efficiency, labor market, profitability, productivity, and budget of the government?

Most country studies are based on firm-level case studies. Some studies of individual enterprise behavior may compare individual enterprise performance pre-post-

privatization; others are part of impact studies that look at labor and capital market effects. Most case studies of privatization are focused on process and are too recent to address effects or impact. Despite widespread anecdotal evidence, the number of success stories (or anecdotes of failure) is small and seems to be concentrated in the field of service provision. The reason for the paucity of industrial case studies is unclear. Raw enterprise-level case studies, the basic source of qualitative and quantitative impact information, are sparse. Studies on the question of whether ownership matters subject this very limited case study material to econometric analysis to determine whether there are differences in performance between public and private firms. Whether ownership structure affects enterprise performance is an empirical matter and is testable; there is a large empirical literature on this question.

Despite a theoretical presumption and casual observation that private ownership is more efficient, research results are profoundly divided. Initial conditions, modes of privatization, institutional environments, and particularly the capacity of governments to regulate determine efficiency outcomes. The consensus (if there is one) as measured by numbers of publications and conferences in the past half-decade stresses the primacy of competition over ownership, of deregulation over divestiture. However the debate continues. Galal (1994) attributes the contradictory conclusions to the industries studied: some studies find privatized enterprises superior because they illegitimately compare competitive to monopoly enterprises; others compare reasonably competitive firms to find private enterprises superior; and comparisons of monopoly enterprises get results. In almost, all but a few of the cases studied, there was a substantial improvement of company after privatization.

To corroborate this, World Bank study by Galal (1994), revealed a significant performance improvement in eight out of nine developing country cases studied. A sample of sixty company cases studied by (Megginson *et al.*, 1994), showed a considerably improved performance in 75 percent of the cases investigated. By and large, company profitability was highly encouraging in a majority of cases and privatization therefore, served as an economic eye opener that removed hitherto constraints associated with new investment and access to capital. Although available records show that output growth surpasses the growth of labor and other inputs, yet privatization has the effect of positive contribution to productivity and efficiency of the enterprise. This is the situation in a number of cases of different countries where privatizations policy was adopted, such as Togo; in this country performance was observed to have improved dramatically subsequent to privatization. In this type of situations, enterprises are at a vantage position to adapt their production to meet real demand of the consumers.

Case studies in this area center mainly on the competitiveness of the firms that are undergoing privatization. The firm's competitiveness can be judged by comparing with its own pre- privatization and that of other firms that were not privatized or with firms already in the private sector. Prior to the privatization era of the 1980s and 1990s, most empirical studies on privatization discussed in majority the ownership debate and mostly relied on cross-sectional comparisons of SOEs and private companies. They were out to prove or disprove the idea that in competitive environments, ownership does matter.

Boardman and Vining (1989) and Vining and Boardman (1992) surveyed this earlier literature, the summary of the result highlights the main conclusions of these studies (Regardless whether the result favor private or public ownership, or if they show no difference or vague results). Although many studies predominantly find out that private companies are more efficient, a considerable number of them resolved that either that ownership does not matter or that public companies display superior performance. Nonetheless, these studies face universal methodological problems. Apart from ownership being endogenous, it is well known that public enterprises often operate in less than competitive environments. The authenticity of the results essentially depends on controlling for companies' differences in term of market structure, in regulatory regime, and in degree of competition in both product and input markets, which are often not easy to control for in a cross section.

As remarked by Boardman and Vining (1992). Most of the recent academic works shift attention to privatization rather than the ownership debate, as it was before. An extensive literature examines the impact of privatization on firm performance, and excellent surveys are presented to this effect in Meggison and Netter (2001), and Djankov and Murrell (2002), for transition economies. These studies can be grouped basically into two: case studies of some small sample of firms, and country specific or multi-country studies utilizing larger and sometimes international samples of firms. Most empirical privatization studies make a clear trade-off between depth and breadth of coverage. Usually case studies are often very comprehensive, this because it takes advantage of access to consistent datasets, while multi-country and inter-industry comparisons almost unavoidably settle for the lowest common denominator data that are generally available (Meggison & Netter, 2001).

Martin and Parker (1997) used several performance indicators such as profitability (measured as return on capital employed), efficiency (annual growth in value added per employee) to assess the impact of privatization on 11 major firms privatized in the UK in the 1980s. The outcome of the study indicates that privatization had mixed results in Britain. Although most of the enterprises record increased productivity growth after privatization, nevertheless the result is disappointing in some of the cases. Other performance measures followed the same trend as above.

According to the authors, the underlying principle for the use of several performance indicators is the need to overcome measurement bias. Eckel (1997) examined the effect of the British Airways (BA) 1987 privatization on the stock prices of competitors and on fares charged in those routes where BA competes directly with foreign airlines. The finding shows that, there was a fall in the US competitors' stock prices, which stands at 7 percentages on average point. The implication for this scenario was that stock trade was optimistic, that there would be a much more competitive BA, if it is eventually privatized. A further insight into the study shows that, there was a little reduction of 14.3 percent in the airfares on routes plied by BA relative to those on other transatlantic routes about the same time of privatization.

As a control on the results, the authors went further to evaluate market reactions to Air Canada's two-phase privatization around the same time of BA privatization (first from 100 percent state ownership to 57 percent, then to zero). At the initial phase of privatization, Air Canada's fares were not declining significantly, however the trend changes, in the second phase of privatization recording a considerably significant rise

of 13.7 percent after complete privatization. In contrast to BA privatization findings, there was no significant competitor stock price effect; this is because Air Canada has no rival to compete with in many other routes.

Ramamurti (1997), in a very comprehensive, though descriptive study investigates the impact of the 1990 restructuring and privatization of Ferrocarril Argentinos, the Argentine railroad the largest of such in Latin America. The author's findings revealed that there was a 370 percent improvement in productivity of labor, and radical decline in operating subsidies to almost zero, there is however a massive decline in employment from 92,000 to 18,682 workers (78.7 percent). It was evident that consumers benefited from expanded and better quality services delivered at an affordable cost. Freight rate declines by 20 percent in real terms over 1991–1994 as a concessionaire competes more aggressively with trucks.

In the continent of Africa, Ayee (1996) assessed the privatization of Ashanti Goldfields Company Limited, which was then Africa's largest privatized enterprise, and Ghana Commercial Bank using several accounting ratios. Expectedly most of the performance indicators increased in the post-privatization period, even though some were statistically insignificant. Towing the same line of validity, Oyieke (2002) used Kenya Airways as a case study to investigate the effects of privatization on public sector borrowing requirements. The study documents considerable improvements in the public sector and the net worth of Kenya Airways as a consequence effect of privatization.

The study of the effect of privatization was examined on whether the mean and median firms improve financial and operating performance, measured in various dimensions, after being divested. The first published study in this regard is that of William Megginson *et al.* (1994). Herein after referred to as MNR Given that then at least 20 studies made use of the MNR methodology in various settings.

The MNR methodology has become the benchmark methodology of choice for most of the privatization studies. In spite of obvious drawbacks – mainly associated to possible selection bias (in that governments may only privatize their “best” SOEs via share offerings) and the research necessity that call for simple, universally-available accounting data studies employing the MNR methodology have find to have at least two key advantages. First, they are the only studies known that is capable of directly comparing large samples of economically significant firms, from different industries, which were privatized in different countries, over different time periods. Since each firm is compared with itself (a few years earlier) using simple, inflation-adjusted sales and income data (which produce results in simple percentages), the beauty of employing this methodology is that it allows one to efficiently aggregate multi-national, multi-industry results. Second, while focusing on share issue privatization (SIPs) results in a selection bias, it also yields samples that include the largest and most politically influential privatizations: The record however shows that Sips account for more than two-thirds of the over US\$1 trillion of total revenues raised by governments since 1977.

In the original MNR (1994) the study assessed the pre- versus post-privatization financial and operating performance of 61 companies from 18 countries (6

developing and 12 industrialized countries) and 32 industries that are fully or partially privatized through public share offerings during the period 1961 to 1990. The authors vehemently contend that subsequent to privatization exercise, the crops of sample firms investigated become more profitable and efficient, likewise real sales and capital expenditures were witnessed.

The privatization policy further, strengthened these firms ability in the reduction of the level of their debt as well as increase dividend payments. Contrary to the previous finding, MNR finds no evidence that employment levels decline after privatization. Instead, it was revealed that there was a significant increase 64 percent in employment levels of the sampled companies. While the study was able to overcome the difficulty of obtaining comparable pre- and post-privatization data for large, multinational, multi-industry sample of countries, at the different period, it is regrettably that is limited mostly to Organization for Economic Cooperation and Development (OECD) and other developed countries. Since most of the cases reviewed are from industrialized settings, and that the IPO method is usually applied to high quality candidates, the positive findings might not apply in non-industrialized countries, or to firms divested by methods other than share issuing. The above-mentioned review, although skeletal, suggests that there is now a growing body of research on all aspects of privatization.

These studies provide tangible evidence that privatization “generally” works, both for the firms that are privatized and for privatizing economies as a whole. However, market institutions being in place determine the benefit of privatization. The countries that strive to ensure property rights protection and the rule of law, impress

hard budget constraints, encourage competition, and improve corporate governance reap the largest benefits. If appropriate institutions are not in place, definitely privatization often fails to improve performance at the firm level and by extension for the economy as a whole.

These studies also shows that apart from the market institution being in place a country's policies and institutional make-up strongly affect both the way in which privatization is designed and structured as well as how it was carried out, and the expected outcomes from the process. They confirmed that country conditions are important, and that private ownership has to be placed in an enabling environment of proper and economically friendly policy and institutions for it to produce the benefits of which it is so clearly capable. Lastly, restructuring enterprises prior to privatization is unlikely to yield substantial results.

3.6.1 Efficiency

The main objective of a privatization programme usually is increased efficiency among hitherto Public Enterprises. There is little to be gained by divestiture unless enterprise behavior changes in the direction of cost efficiency and heightened entrepreneurial efficiency (Ramamurti & Vernon, 1991). Countries that privatize benefit and the gains are not only kept by firm owners-they are also distributed to society (Chong *et al.*, 2004).

The neoclassical view prescribes minimizing public enterprise to gain efficiency. Privatization increases efficiency by returning firms to market pressures that induce a

firm to increase its productivity and lower its costs. Villelalonga (2000) discusses the economic efficiency gained through privatization by comparing the lower rates of return in government enterprises to private enterprises. He indicates that privatization of services increases general welfare, even when government expenditures continue.

There are two types of effect on the efficiency identified are discussed; Efficiency and development of the economy and efficiency and development of the enterprise. First the efficiency and development of the economy, this is mostly concerned with seeking to either create or promote a market economy, with the aid of various macroeconomic “instruments”. Actualizing this objective may be done through a variety of methods, which could be in the form of promoting competition (this could be achieved by abolishing monopolies), the promotion of investment (either domestic or foreign) or the encouragement and the expansion of the private sector, including provision of enabling an environment for economic growth.

Remarkably, it has even been found that privatization can serve as a catalyst to the development of institutions that improve market operations, as it was evident in (Megginson & Netter, 2001). Unexpectedly, There are a number of situations, predominantly from poorer developing countries, where performance of the enterprises was improved radically after privatization, this is because the enterprises actually closed down before they were privatized. Findings show that those enterprises whose production outfit could be easily adapted by the new private owners to meet a real demand had a better future than those, which could not (Boubakri, 1998).

Best practice function is considered as an efficient process involving inputs transformation to increased output. The practice reveals the ability of producing a certain amount of output at the lowest cost (Forsund, 1980). The question arises regarding the real meaning of 'efficiency', its various types, the differences between them, each type's effect upon the company, and methods to measure them.

Second efficiency and development of the enterprise, this impact focuses on the benefits to the particular enterprise being privatized. This benefit could be realized by freeing minimized the enterprise of government intervention, and thereby increasing economic flexibility, this in turn stimulates decision-making, improving the efficiency of the enterprise in question, productivity and quality are then enhanced as a result of such increased economic flexibility and decision-making. More commonly it is believed that a government usually does not run a good business, for this a government-owned business (a public enterprise) is more often than not less efficient than a private enterprise.

Mostly this is always in harmony with the prime objective of improving the efficiency and development of the economy. This could be summarized in a simple term as a better-run business improves the economy. To corroborate this assertion, review of over 50 empirical studies that span through several thousand companies from about 50 countries finds that increases in performance that associated with privatization made the divested firms almost always become more efficient, more profitable, increase their capital base and spending, and become financially healthier than those firms that were not privatized. As what was cited of objective by the some countries legislation, the prime reason responsible for less efficiency recorded in the public enterprises than private sector enterprises is that fact that the expected

connection which is supposed to exist between the owners of the enterprise and the management of the enterprise as to promote efficiency was lacking (This is otherwise known as the principal-agent theory). Block (2008) and Dirge (2011) argued that the privatization of all aspects of the industry is the most effective way to ensure that the free enterprise market system can efficiently allocate scarce resources and maximize consumer and producer welfare.

In a public enterprise, the management generally includes the state, as the owner of the public enterprise, the government and its ministers, the professional civil-servants who were saddled with the responsibility of overseeing the enterprise, the board of directors and the executive officers of the enterprise. In the event of privatization of such state-owned enterprises, it is highly inevitable that many levels of “middle-men will be eliminated” in the process, each with their own interests and with the aim of at least bringing the enterprise to a status where it is able to achieve, (in theory), the level of efficiency that any other private enterprise enjoys.

In the subject of transition economics, two efficiency types of arguments are mostly utilized:

- i. The first one being the product efficiency that asserts the presence of production efficiency in a privatized firm owing to the managers and employees’ better incentives. The belief is that privatized firms may face a greater risk of liquidation compared to their public counterparts and therefore, managers in private firms face a greater risk of being fired from their jobs when they are not deemed to be suitably skillful.

- ii. The second argument being the locative efficiency asserting that public firms are socially more efficient as the government is considerate of the social welfare and therefore, they try to internalize the externalities while in private ownership payoffs are just maximized.

3.6.2 Financial and Operating Performance

Privatization has been part of government policy toolkits since the past two decades. This provided enough time for academic researchers to generate a wide range of empirical studies on the effects of privatization on the post-privatization financial and operating performance of former state-owned enterprises (SOEs). In this section we shall examine some of these empirical studies in the following paragraphs.

The study conducted by Megginson, *et al.* (1994) compared pre-privatization and post-privatization financial and operating performance of 61 firms that experienced full or partial privatization through public share offerings from 32 industries in 18 countries (6 developing and 12 developed) between 1961 and 1990. They used several financial indicators such as profitability, sales, operating efficiency, capital investment, liquidity, leverage ratios and dividend payout figures. The study documents strong performance improvements achieved without sacrificing employment security. Specifically, after being privatized, firms increase real sales, become more profitable, increase their capital investment spending, improve their operating efficiency and increase their work forces. Furthermore, these companies significantly lower their debt levels and increase dividend payout.

An empirical study by La Porta and Lopez-de-Silanes (1997) of 218 privatized firms in Mexico found on average of 24 percent increase in ratio of operating income to sales. Reviews of the post privatization performance of 28 divested firms in Egypt reveals that 71 percent of the sample increased their sales, 68 percent increased their earnings, 96 percent increased average salary per worker and 82 percent of the sample reduced both short and long term debt. Dewenter and Malatesta (1998) use regression and time series methods to compare the pre-versus post-privatization performance of 63 large, high-information companies divested during the period 1981 to 1993. These authors examine performance changes over both short time frames around privatization, comparing events (-3 to -1) with (+1 to +3), as well as examining a longer period, comparing events years (-10 to -1) with (+1 to +5). They document significant post-privatization increases in profitability (using net income) and significant decreases in leverage and labor intensity (employees/sales) over the period immediately after privatization. However they also find that operating profits increase prior to divestiture and may actually decrease somewhat afterward. Their results confirm the findings of Boardman and Vining (1989). The only difference is that they document profitability that is not only statistically significant but it is large. They also provide support for the view that government firms are less efficient than private firms at least to the extent that profitability and efficiency can be equated.

Juliet D'Souza and William Megginson (1999) compare the pre- and post-privatization financial and operating performance of 85 companies from 28 countries (15 industrialized and 13 non-industrialized) that experience full or partial privatization through public share offerings for the period from 1990 through 1996. The study documents significant increases in profitability, output, operating

efficiency, and dividend payments and significant decreases in leverage ratios- for all the sampled firms after privatization and for most sub- samples examined. Capital expenditures increase significantly in absolute terms, but not relative to sales. Employment declines but insignificantly. By and large, findings from this study strongly suggest that privatization yields significant performance improvements.

In another single industry study, D' Souza and Megginson (1998), examines performance changes following the privatization by share offering of 17 national telecommunication companies for the period from 1981 through 1994. They find persuasive evidence that profitability, output, operating efficiency, and capital investment spending, the number of access line (a proxy for units of physical output), and average salary per employee all increase significantly after privatization.

Boubakri, *et al.* (2004) examined the post-privatization performance of newly privatized firms in Asia and document how the private ownership structure evolves overtime. The authors show that privatization leads to increase in profitability, efficiency, and output in former SOEs from Asia.

3.6.3 Employment

Evidently privatization in its entirety is in the interest of employees; however there are a few exceptional cases where privatization is not in favor of the employees. The accrued Benefits of privatization are of three folds:

- i. Employment levels tend to increase after privatization.
- ii. Remuneration packages of the employee are always improved after privatization.

- iii. Many employees enjoying the privilege of buying shares at discounted prices in the privatized firms and the benefit of this opportunity has been reflected when share prices eventually rose.

In the event where employees lost their jobs due to privatization, such employees stand the chance to receive handsome severance packages (unemployment packages). These types of generous welfare packages such as Severance and retirement incentives buy labor support and allow privatization and its benefits to be felt in full force, nevertheless where unemployment insurance systems are not in place, mitigate the social impact of layoffs (Kikeri, 1999). It is however noteworthy that in some occasions, reduction in the level of employment and even downsizing of the work force took place prior to privatization. This could be attributed to the need for greater efficiency, and not just privatization itself as some studies insulated. Also when the shutdown enterprises were re-opened to operation by private investors, employees stand a significant chance to benefit directly.

The evidence shows that employees benefited from privatization although not, of course, in every case. Employees tended to benefit in three different ways: (1) employment levels tended to increase after privatization; (2) remuneration packages tended to improve after privatization, often including performance bonuses; and (3) many employees bought shares in the privatized enterprises, further benefiting when the value of those shares increased.

In some cases, such as Aero Mexico, employment levels dropped after privatization. However, laid-off employees generally received generous severance packages. In

many cases employment levels had fallen prior to privatization, so one may attribute this effect not just to privatization, but to the need for greater enterprise efficiency.

Employees also benefited directly when shut down enterprises were privatized and restarted by private investors. In Jamaica, the success of the privatized hotels and subsequent boost to tourism had a major beneficial effect on indirect employment. In post-communist countries, employment levels in privatized enterprises have generally fallen, though wage levels have tended to increase after privatization. It should be noted that employment levels in SOEs have fallen even faster, which suggests that privatization has helped preserve employment, at least in relative terms (Young, 1998).

Workers in factories facing privatization, and organized labor, whose leaders have gained both power and privileges within medium and large firms owned by the state, are potential opponents to privatization. Countries such as Tunisia have tried experiments in providing jobs specifically for redundant workers in public works projects. Others, such as Zambia, have proposed making available land in rural areas to enable displaced factory workers to return to small-scale farming. There has been no general evaluation of the effectiveness of these policies. Measuring the impact on labor of the various forms of transition from a state-owned and -directed economy to a free market will be neither easy nor quick. Factors to be considered (some included in studies such as that by Galal (1994) include income levels, acquisition of technical skills within the labor force, labor mobility, and the operation of the safety net.

For most countries, it is too soon to arrive at any firm judgment on the real impact that privatization and the transition to a free market will ultimately have on labor (Galal *et al.*, 1994) found no loss to labor as a class in the cases studied; in 10 cases (in middle-income countries) the workers gained through post-privatization share appreciation where employees were able to buy stock in the new firm. Workers may also have gained, where severance pay was offered or from higher wages resulting from greater managerial efficiency and increased productivity. The Megginson research also shows that employment rises after privatization. In transitional countries in particular, the extent to which the workers have suffered from the loss of ancillary services previously offered by PEs remains unclear. Such services are less likely to be replaced by governments in least-developed countries (Berg *et al.*, 1996).

In a related study Stuckler and King (2007) revealed a significant positive relation between rapid privatization and increased social costs in the post-Soviet Union countries; the most significant social cost revealed is unemployment (Ramamurti, 1997). This result is further reinforced by Nellis (2005) who reported unemployment and layoffs owing to privatization amounting to 150, 000 Argentine workers in the time frame from 1987-1997. In the same time frame, around 50 percent of employees in privatized firms were laid off in Mexico, more than 90, 000 in Brazilian railways, and finally around 15 percent of the aggregate labor force in Nicaragua. Tansel (1998) adds to literature by reporting that in Turkey, added to the number of laid off workers after privatization in the petrochemical and cement industry, is the laid-off workers' decrease in earnings.

3.6.4 Productivity

The previous thirty years have experienced a surge of privatization activities within public services as well as SOE in developed as well as the developing countries. This is because international institutions like the IMF and the World Bank have made it their policy to recommend privatization of enterprises and services to the developing world. The rationale behind this recommendation lies in the belief that privatization generally increases the revenue for the state and enhances public finance, increases efficiency, improves productivity of agents and competition in the market environment through the minimization of government economical interference (Megginson, 1994).

According to various researchers (Megginson, 1994; Villalonga, 2000; Megginson & Netter, 2001; and Sheshinski & Lopez-Calva, 2003, D'Souza, J., Megginson W. & Robert N. 2005), one of the aims of privatization is to increase productivity. This is possible through the change of ownership, which will involve new incentives to maximize output and reduce input as managers align the firms to the pressures coming from the shareholders as opposed to the social and political goals of national or municipal governments. In other words, improved productivity, cost reduction and profit maximization are the aims of privatizations. The issue that arises is the value of other aims and the level to which the ownership change is a necessity in achieving the goals.

Based on empirical evidence, privatization's aim of increased efficiency is mostly achieved by industries in the developed as well as developing countries. For instance

Ehlich (1994) reveals that change in public ownership to a private one leads to the increased production of the firm. In a similar study, Vining and Boardman (1992) revealed that compared to public and mixed enterprises, private firms come on top based on profitability and efficiency. A study by Price and Weyman-Jones (1996) on productivity change due to privatization showed a notable productivity increase prior and following privatization owing to the pre-privatization regulatory reforms.

However, studies have also revealed that efficiency increases in private firms comes with a price. Evidences point out to mixed results regarding the macroeconomic and welfare impacts of privatization. Pollitt and Smith (2002) found privatization of British rail industry resulting in increased outcome and efficiency but decreased quality of outcome and government revenues. Similarly, Tyrrall (2004) found that the UK railway privatization exhibited increased outcome in terms of passengers and services but decreased infrastructure quality, speed and timely services. In a related study Stuckler King(2007) reveled a significant positive relation between rapid privatization and increase costs in the post-Sovite Union countries; the most significant social cost reveled is unemployment (Ramamurti, 1997). This result is further reinforced by Nellis (2005), who reported unemployment and layoffs owing to privatization amounting to 150,000 Argentine workers in the time frame from 1987-1997. In the same time frame, around 50 percent of employees in privatized firms were laid off in Mexico, more than 90,000 in Brazilian railways, and finally around 15 percent of the aggregate labor force in Nicaragua. Tansel (1998) adds to literature by reporting that in Turkey, added to the number of laid off workers after privatization in the petrochemical and cement industry, is the laid-off workers' decrease in earnings.

In conclusion, it is logical to state that privatization does lead to factor productivity in majority of cases and is considered imperative in developing and transitional economies. Generally speaking, factor productivity is low owing to inefficient allocation of current factors and the use of outdated technology and mismanagement of administration etc.

Privatization may be utilized as an effective tool to resolve issues and its success more often than not result in increased productivity and substantial growth to the economy as a whole. The rationale behind privatization is that incentives arising from the process help encourage organizations to enhance their process in such a way that SOEs are unable to do (Laban & Wolf, 1993).

3.6.5 Capital Development

Privatization has done much to strengthen capital markets and widen the ownership of capital, although such effects are closely related to the methods of privatization pursued by individual countries. Countries that have concentrated on tender sales to foreign investors have been unable to capture such benefits. Other countries, such as Jamaica, Chile, Mexico, Nigeria, Poland and the Czech and Slovak Republics, have strengthened their capital markets considerably and created a large group of shareholders. However, where ownership of an SOEs has passed to a large number of small shareholders, the new owners have had little influence on management.

The sale of shares to employees is another means of “democratizing” the ownership of capital that has been successfully pursued in developing and post-communist countries. Of course, the mass privatization schemes of the Czech and Slovak Republics and of Russia have created more shareholders than any other approach. However, the ability of shareholders to exercise fully their ownership rights in Russia is in some doubt.

An effective legal framework and infrastructure is necessary to safeguard property rights and to facilitate the trading of securities (Young, 1998). On the other hand, it has been observed that Privatization has been the main driving force behind the development of capital markets. Undoubtedly privatization led to the growth (in terms of market capitalization) and deepening (in terms of numbers of shareholders) of financial markets, as well as increasing their liquidity share issue.

It is notable that privatized firms are the most valuable companies in 7 of the 10 largest non-US stock markets; the same is the case for all emerging markets possessing stock exchanges. Moreover, 35 of the 42 largest common stock issues in history are either privatizations or capital increases by recently privatized firms. Lastly, privatizations have not only increased the liquidity of stock markets, but they have radically increased the number of shareholders around the world (Megginson & Netter, 1998).

3.7 CONCLUSIONS

Privatization has been a very powerful tool in economic transformation as well as economic liberalization for any country's economy, suffering from structural imbalances or interested in a more encouraging level of economics in an efficient manner. This process in turn will increase performance rate, which could offer a prominent position to the hitherto unhealthy economy, in the rank and file of developed economies. In the review of literature, we have seen that privatization has produced mixed results, but most of the research conducted revealed strong performance improvements as a result of privatization. Only a few studies have indicated dismal performance after privatization.

In the foregone discussions, it is therefore imperative to first of all have the definitional grasp of the subject matter "privatization". This led us to probing into different definitional views of various literatures. This will also state why privatization is vital for the growth and development of some sectors and why, it will is not in some other sectors within the economy. Finally, analysis on how privatization affects the performance of a firm. On the above submission, this chapter presents a series of previous studies, which spans from the theoretical point of view to the practical perspectives. For meaningful information to emerge from this study, privatization of various aspects of economy as reported by various literatures is succinctly presented in this chapter of this study.

This chapter was also covered four important theories related of privatization: the property rights theory, the principal agent theory, the public choice theory, and the

competition theory. This involves critically examining the theories that have been developed over time by different authors, and how they impact privatization as regards the objectives of this study. The theories highlight the changes in ownership of firms' direct link to economic efficiency. All these theories emphasized differing points of objectives, structures and constraints that public and private firms face as they expound on the inefficiency of public firms.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.0 INTRODUCTION

Chapter four discusses the research methodology used in this study. This chapter consists of eight sections. Section 4.1 explains the research framework. Then, Section 4.2 describes the model specification based on privatization and its impact on firms' performance. Meanwhile, the justification of the variables, discussion of data, and elaboration of questionnaire design, and discussion of the sampling are presented in Section 4.3, Section 4.4 Section 4.5 and Section 4.6, respectively. Meanwhile, Section 4.7 explains the method of analyses. Finally, Section 4.8 concludes this chapter.

4.1 RESEARCH FRAMEWORK

According to Sekaran (2003), the theoretical framework visualizes the theorized relationship between several identified factors. In this study, the research framework has been developed based upon previous discussions in Chapter Three. The purpose of this research framework is to summarize the effect of a privatization programme on public enterprises performance. It also serves as a guideline for implementing the data collection and for identifying the main variables, which are part of the analysis.

The research framework of this study has been developed based on four important theories related to privatization: the Property Rights Theory, the Principal Agent Theory, the Public Choice Theory and the Competition Theory. The details of these theories have been explained in Section 3.3. Figure 4.1 below shows the study's framework.

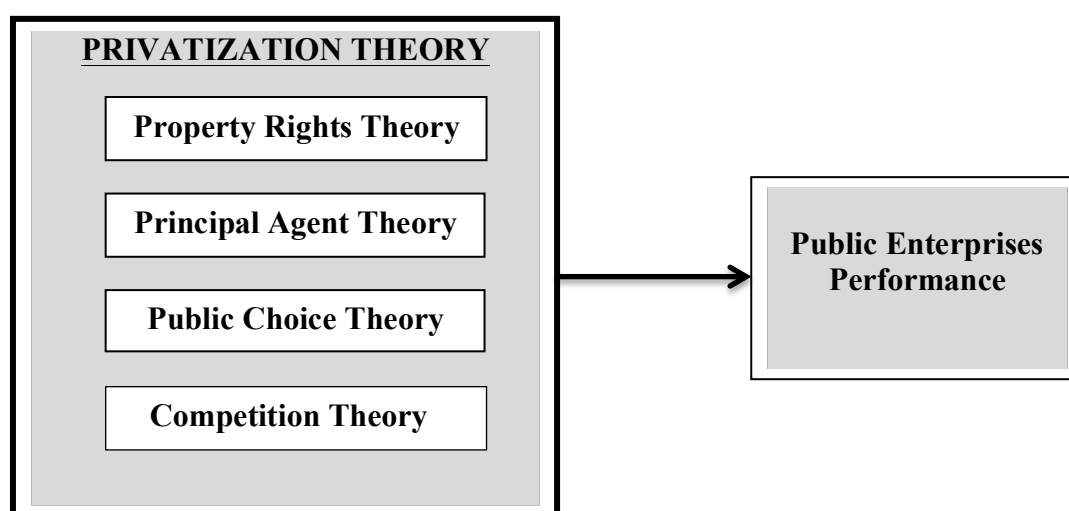


Figure 4.1: Graphic of Theoretical Framework

In this study, the research framework develops the distinctions between the two dependent variables of operational efficiency and profitability, which have been chosen to represent public enterprises performance. Meanwhile, six main independent variables have been employed that comprise productivity, ownership structure, employment, capital, privatization and liquidity. The schematic diagram showing the relationship between the independent variables and dependent variables is presented in Figure 4.2 below.

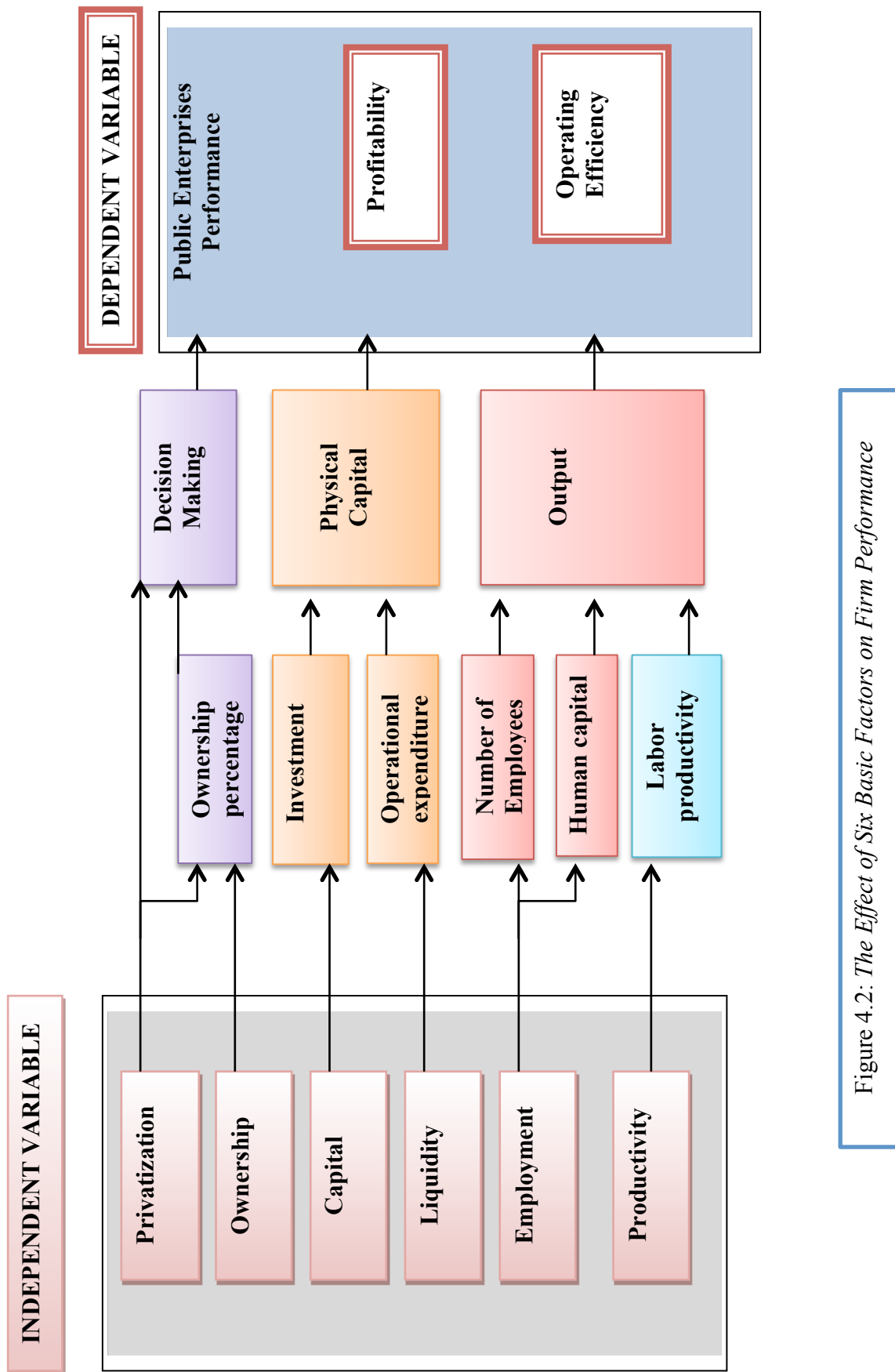


Figure 4.2: The Effect of Six Basic Factors on Firm Performance

All the variables shown in Figure 4.2 above were examined in the literature, which has a consensus that privatization results in the enhanced financial and operational performance of a firm. In other words, enhanced performance may be attributed to the fact that once the privatization is embarked upon in SOEs (State-owned Enterprise), profitability objectives take top priority. According to Megginson and Netter (1997), the amount raised by all governments during the last two decades by privatisation, considering only public offers, is more than \$400 billion, a figure that would be considerably surpassed if direct sales were accounted for. While several possible reasons exist for why privatization may be undertaken (Yarrow, 1986), the main driver of this trend has been the search for an increase performance of the firms involved (Megginson *et al.*, 1994).

Whether privatization actually leads to improvement in performance has been the subject of a considerable amount of theoretical and empirical research. Most of this research, however, has been concerned with whether private ownership leads to higher efficiency than does state ownership, which answers only part of the question. As a consequence, empirical results do not always support the theoretical predictions. Several factors independent of the private-public distinction also intervene in the relationship between privatization and enhanced firm performance. Moreover, some of them do so in a dynamic way, thus influencing the timing of privatization effects. Therefore, these independent factors need to be controlled for, not only in empirical research, but also in a complete theory of privatization.

The Agency Theory explanation is based on the variety of agency problems and solutions to those problems that are associated with public and private ownership. Managers (The agent) in both types of firm are assumed to seek the maximization of their own utility rather than that of the organization or its owners (The principal). In private firms, this divergence is reduced through the existence of: (i) a market for ownership rights that enables the owners to sell if they are dissatisfied with managerial performance, (ii) the threat of takeover; (iii) the threat of bankruptcy; and (iv) a managerial labor market. In the case of state-owned firms, not only are all of these mechanisms absent, but also, the owner-manager relationship is broken down into two other different agency relationships: owner (the public)-politician, and politician-manager.

The central argument of the Public Choice Theory is that politicians pursue their own utility rather than that of the public interest. Accordingly, they impose goals on state-owned firms that can help the politicians gain votes but also can conflict with efficiency. To the general public, who are the ultimate owners of the firm, the costs of monitoring this public sector behaviour (e.g., information gathering, lobbying) are likely to offset the benefits (e.g., less taxes, or more efficient public spending). This is not the case, however, for interest groups such as trade unions, which makes state-owned enterprises easy targets for rent-seeking activity.

Nonetheless, a literature review shows that the existing empirical evidence does not always support the positive effects of privatization on firm performance predicted by the different theories.. Why does such a mismatch between theory and evidence exist?

The answer proposed here is that the existing privatization literature has only looked at part of the problem, which is whether private ownership leads to higher performance than does state ownership. Privatization implies a change in a firm's ownership, from state to private. Hence, the superiority of private to public ownership in terms of firm performance is a necessary condition for a positive relationship between privatization and performance to exist. However, the while the condition is necessary, it is not sufficient for two reasons.

First, public versus private ownership is primarily a static question, which can be typically addressed by comparing both types of firm over a given time period. However, privatization is by definition a change, and must be addressed dynamically by looking at the evolution and transition of a given firm between its private and public stages.

Second, privatization has political and organizational implications that are likely to either positively or negatively the firm's performance, and therefore either reinforce or counteract the effect of the change in ownership. The basic prediction of all existing privatization theories is that privatization increases firm performance.

Political implications of privatization include all government decisions triggered by the choice to privatize a given firm. These decisions may affect the firm's performance either positively or negatively. A positive effect will take place if, for instance, the government privatizes a firm from an industry that will rapidly grow in order to make privatization look good. On the other hand, a negative effect is typically a consequence of giving priority to privatization goals other than that of performance, when the choice between those goals and that of performance involves a trade-off. Such would be the case, for instance, of privatizing a monopoly before introducing competition or an introducing an appropriate regulation beforehand as opposed to afterwards in order to increase the revenue from privatization (Vickers & Yarrow, 1988). Such would also be the case of hastening to privatize the firm in a period of recession in the industry or in all of the economy, as opposed to waiting for a better time, because the government wants to increase its revenues in that period for political reasons. The possibility of unintended negative effects, such as a government's mistakes or failure in choosing the optimal buyer or privatization method, also are present.

Organizational implications of privatization include all the decisions the new owners or managers of the privatized firm take that the government cannot predict at the time of when the choice of made to whom to sell the firm. Again, these decisions can affect the firm's efficiency either positively or negatively. As an example of a positive effect, consider a firm, which under state ownership is being managed through a large conglomerate and is privatized through its direct sale to a more specialized company. If the buyer can exploit synergies with its existing business, and part of the savings are

passed on to the acquired (the privatized) firm, privatization would have obviously brought about gains in efficiency but would have had nothing to do with the private/public distinction.

Negative effects may also take place if, like government representatives before privatization, managers of a newly privatized firm give a higher priority to other objectives. For instance, consider a firm that is privatized by a direct sale and is maintained as a separate business unit of the acquirer. The corporate strategy of a firm may be such that not all business units are treated equally (Brush & Bromiley, 1997); thus, the case might be that the acquiring firm's best interests as a whole are not to maximize the performance of the individual acquired unit. Also, as with all political decisions, the possibility exists of unintended negative effects from the decisions of the new management. Managers might find themselves unable to turn around a low-performing firm, encounter resistance to change at some level of the organization, or face any other unintended situations.

A typical scenario following the privatization of larger firms and those firms operating in monopolistic economic sectors is company specific restructuring, which may or may not be a part of general changes such as market liberalization in which competition become fierce. Usually at this stage of reform significant employment losses are noted. Moreover, privatization is an activity characterized by high resource intensity calling for worker skills and expertise not generally found in SOEs.

Privatization often increases employees' insecurity, job loss, changes in working environment, stress owing to job insecurity, and lower wages among other negative side effects. However, according to Kiker (1997) and contrary to popular belief, workers often benefit from privatization through new investments and dynamic expansion as these activities lead to job creation in the enterprise and the sector. Moreover, productivity enhancements often result in superior service terms and conditions. In addition to this, privatization is in the employees' best interests as they obtain many benefits from it including improved remuneration packages (Kikeri, 1997; Pamacheche & Koma, 2007; Khan et al., 2011) and, in some cases, wage rises and a better working environment (Rozana, 2000). Also, in a sufficiently competitive industry, privatization enhances welfare (Cato, 2008).

Nevertheless, privatization often negatively impacts jobs owing to overstaffing of public enterprises (Nancy & Nellis, 2003), and, hence, employees in the privatized firm perceive job insecurity and fear losing their positions (Aghaei et al., 2010). In most privatization cases, employees are laid off, but these employees are often provided with generous severance packages (Pamacheche & Koma, 2007).

In sum, no simple prediction of the privatization outcome exists as a particular outcome generally depends on at least three factors, namely, initial conditions, the sale event and the post-privatization political and economic environments (Birdsall & Nellis, 2003).

Employee productivity increases after privatization particularly in firms that employ Employee Stock Ownership Plans (ESOPs), and this is why employee ownership has been shown to be a crucial incentive for employees to work their best. Privatization has been acknowledged to be related to enhanced product quality at competitive prices, thus maximizing a firm's productivity. Based on the works of several authors, increased productivity is among the many objectives of privatization (e.g., Megginson, 1994; Villalonga, 2000; Megginson & Netter, 2001; Sheshinski & Lopez-Calva, 2003).

Increased productivity can be realized via ownership change that involves new incentives to heighten output and lower input as the management maintains an alignment between the firm and the pressures from shareholders instead of aligning the firm with the social and political goals of the government. In sum, privatization aims to improve productivity, reduce costs and maximize profit. The issue that comes into play is the value of other objectives and the degree to which ownership change is needed for achieving those objectives.

Based on the neoclassical viewpoint, the number of SOEs must be minimized to realize efficiency because privatization maximizes efficiency by returning firms to market pressures urging firms to enhance their productivity and to their minimize costs. Ehrlich (1994), who demonstrated that privatization results in increased firm production, emphasized this point. Similarly, Vining and Boardman (1992) explained that, in comparison to public and mixed firms, private firms are superior in terms of profitability and efficiency. This viewpoint is also consistent with Price and Weyman-Jones's (1996)

study dedicated to productivity change following privatization. Their results showed a significant increase in productivity following privatization due to pre-privatization regulatory reforms.

Another expected influence of privatization comes in the form of capital investment spending. According to the U.S. Census Bureau (2007) and several studies (Maremont & Cohen, 2002; & Solomon, 2002), capital expenditures constitute one of the most significant and riskiest accounts in corporate financial statements. These expenditures have long been reported to influence a firm's value and survival (Tobin, 1969; Hayashi, 1982; Abel, 1983). As such, investors, regulators, auditors and the public have to understand capital investment motivators. For example, investors are able to make more informed decisions about potential investments if they understand the concept of free cash flow with respect to different types of firms. These can include firms involved in environmental activities that incur considerable capital expenditures, which may produce lower free cash flow compared to firms without similar degrees of environmental concern.

Generally, the expectation is that a higher stress on efficiency and profitability would enable privatized firms to maximize their capital investment spending. In addition, firms must increase their capital expenditures following divestiture as their ties to government bureaucratic procedures will no longer exist, and they have greater access to both private debt and capital markets. Furthermore, if privatization occurs along with deregulation and the opening of markets, SOEs will be confronted by high investment spending

requirements in order to have a competitive edge over their rivals. Compounding this is the fact that years of financial stress frequently lead to deferred maintenance, which must be undertaken post-privatization. Freedom from government control minimizes the government's ability to bribe or coerce managers to generate politically attractive goods that are economically wasteful (Megginson *et al.*, 1994).

Liquidity, which is defined as the ability to convert an asset to cash, is another issue related to the differences between privatised firms and SOEs. Often times, a SOE faces liquidity issues that privatised firms do not. Illiquidity inhibits the ability of a SOE to conduct business efficiently. Normally, a firm that is not liquid and is unable to pay its creditors in a timely manner and honour its obligations to the fullest to meet its credit obligations and pay for services and goods from suppliers can be deemed as a sick/bankrupt one. Liquidity equips a firm with the negotiating abilities with lenders to postpone payments and leverages its liquidity in investments and provides a firm with the ability to acquire loans at reasonable interest rates (Kallberg & Parkinson, 1993; Rees, 1995). A firm might overlook incentives that good credit and services and good suppliers provide because of a lack of cash or liquid assets and oversight of such incentives may lead to greater costs for goods, which in turn, would influence business profitability. Therefore, the firm must consistently maintain a specific liquidity level.

Each stakeholder has an interest in a firm's liquidity. While a goods supplier is interested in a firm's liquidity for selling goods on credit, employees are interested in knowing if the company can meet its obligations to employees in terms of salaries,

pensions, provident funds and others. Meanwhile, shareholders are interested in a firm's liquidity through its relationship with profitability because high liquidity can signify low profitability and non-liquidity might limit the company in obtaining incentives from its bankers, creditors and suppliers.

According to Maug (1998) and Kahn and Winton (1998), the higher the liquidity the greater the potential for large shareholders to maximize profit. Large shareholders monitor a company for indicators of performance, and company managers understand this practice. A large shareholder opts to buy additional shares when that monitoring reveals that a firm's performance can be expected to become better. In this case, the higher the liquidity, the greater the number of share that are purchased in the market owing to the reasonable costs of transaction. This relationship is consistent with the findings of Bhidé (1993) who revealed that high liquidity makes large shareholders not as aggressive in their monitoring, but that large shareholders are more inclined to sell shares upon noticing poor management performance.

Liquidity is considered to be an important performance determinant because liquidity influences a firm's opportunity to take up viable investments and thus increase performance. Enhanced liquidity contributes by providing a firm with the necessary cash for on going operating expenses and also increases a firm's flexibility for capital investments or expenditures. Firms demand liquidity in anticipation of future financing needs either because getting financing now is cheaper or because a risk exists that financing will be unavailable if the firm waits until the need for funding arises.

4.2 ESTIMABLE MODEL

The estimable model of this study has been established based on the research framework and literature review that are explicated in Section 4.1 and Chapter Three, respectively. Based on these sources, the two dependent variables of operational efficiency (*OPE*) and profitability (*PFT*) have been chosen to represent public enterprises performance (*PEP*). Meanwhile, six independent variables have been employed, which comprise productivity (*PRO*), ownership structure (*OWS*), employment (*EMP*), capital (*CAP*), privatization (*PRI*) and liquidity (*LIQ*). The general function of the relationship between dependent variables and independent variables is shown in Equation [1] below.

$$[1] \quad PEP = f(PRO, OWS, EMP, CAP, PRI, LIQ)$$

The specific econometric model is shown in Equation [2].

$$[2] \quad PEP_{it} = \alpha_{it} + \beta_1 PRO_{it} + \beta_2 OWS_{it} + \beta_3 EMP_{it} + \beta_4 CAP_{it} + \\ + \beta_5 PRI_{it} + \beta_6 LIQ_{it} + \varepsilon_{it}$$

where i represents the number of public enterprises which is 13 or $i = 1, 2, \dots, 13$,

$t = 1, 2, \dots, 8$, β represents coefficients, and ε represents error term.

Dummy variables (*PRI*) for privatization years were added to the regressions to determine the effect the privatization on the performance, whereby:

PRI = 0 before the privatization

PRI = 1 after the privatization.

Four models have been formulated to show the impact of the independent variables on the dependent variables. These separate models have been developed to measure the public enterprise behaviour and performance in a broad assessment of the impact of privatization. These models are shown in Equation [3] through Equation [6] below.

$$\begin{aligned} [3] \quad ROA_{it} = & \alpha_{it} + \beta_1 PRO_{it} + \beta_2 OWS_{it} + \beta_3 EMP_{it} + \beta_4 CAP_{it} + \\ & + \beta_5 PRI_{it} + \beta_6 LIQ_{it} + \varepsilon_{it} \end{aligned}$$

$$\begin{aligned} [4] \quad ROS_{it} = & \alpha_{it} + \beta_1 PRO_{it} + \beta_2 OWS_{it} + \beta_3 EMP_{it} + \beta_4 CAP_{it} + \\ & + \beta_5 PRI_{it} + \beta_6 LIQ_{it} + \varepsilon_{it} \end{aligned}$$

$$\begin{aligned} [5] \quad ROE_{it} = & \alpha_{it} + \beta_1 PRO_{it} + \beta_2 OWS_{it} + \beta_3 EMP_{it} + \beta_4 CAP_{it} + \\ & + \beta_5 PRI_{it} + \beta_6 LIQ_{it} + \varepsilon_{it} \end{aligned}$$

$$\begin{aligned} [6] \quad RS_{it} = & \alpha_{it} + \beta_1 PRO_{it} + \beta_2 OWS_{it} + \beta_3 EMP_{it} + \beta_4 CAP_{it} + \\ & + \beta_5 PRI_{it} + \beta_6 LIQ_{it} + \varepsilon_{it} \end{aligned}$$

Equation [3] – Equation [5] utilizes return on assets (ROA), return on sales (ROS), and return on equity (ROE) to represent public enterprises profitability. Meanwhile, Equation [6] utilizes real sales (RS) to represent public enterprises efficiency.

4.3 JUSTIFICATION OF VARIABLE

The intention of this section is to justify the variables included in Equation [2].

4.3.1 Public Enterprise Performance

Two types of public enterprise performance measurements have been chosen in this analysis, namely, profitability and operating efficiency. The term “profit” has two linked but differentiated meanings in the field of economics. Normal profit refers to the total opportunity costs, implicit and explicit, of a venture to an investor, whereas economic profit is the difference between the total revenue and all costs of the firm with the inclusion of normal profit.

Generally speaking, SOEs are frequently unprofitable partially owing to their major focus on objectives aside from profit maximization including employment maximization. Thus, performance of these firms is designed with several objectives like capital market development, improving production capacity and boosting revenues and minimizing costs in mind as alternatives to the single objective of profit maximization.

Three indicators are utilized in this study as proxies of profitability. They are return on sales (ROS), return on assets (ROA), and return on equity (ROE) ratios. Such ratios reflect the manner in which a firm utilizes owners’ resources. Prior literature (e.g., Megginson, 1994; Boubakri & Cosset, 1998; D’Souza & Megginson, 1999) has

contended that the privatization of SOEs results in higher performance. On the basis of such contentions, this study hypothesizes the following:

H₁: Privatization has a significant effect on the profit of former SOEs.

By privatizing former state-owned enterprises and putting them into direct competition with other firms, government clearly hopes that the newly privatized firms will employ their human and financial resources more efficiently. The shareholders (including employees) in a private company capture most of the benefits of efficiency improvements, but they also suffer most if efficiency is not improved. In removing the non-economic government-supported objectives of the firms, government explicitly states that the trade off is expected to increase operating and financial efficiencies.

The literature reviewed shows that some efficiency measures and efficiency factors used could be further enhanced. Specifically, Megginson et al. (1994), Boubakri *et al.* (2005), Wei *et al.* (2003), D'Souza *et al.* (2001), Dockner et al. (2005), Boardman *et al.* (2002) and Boubakri and Cosset (1998) investigated the effect of privatization on the operating efficiency of a firm by comparing the efficiency ratios before and after privatization. In this study, operating efficiency was proxied by sales per employee and net income per employee. This metric is consistent with prior studies that utilized new income/employees and net sales/employees (e.g. Megginson *et al.* 1994; La Porta & Lopez-de-Silanes, 1997; Anderson *et al.*, 1994; Frydman *et al.*, 1997; Dewenter & Malatesta, 2001). Thus, this study hypothesizes the following:

H₂: Privatization increases the operating efficiency of firms.

4.3.2 Privatization

In a strict sense, privatization can be defined as the sale of a state-owned firm to the private sector. Governments attempt to privatize SOEs for various reasons. These include: to raise revenues, to create popular capitalism, to reward political loyalists, to placate the demands or suggestions of external financing agents, to decrease the administrative burden of state bureaucracy, and to make the private sector responsible for needed enterprise investments (Nellis, 1991). However, the primary reason is to improve the performance of SOEs and, as a result, to reduce the budgetary burden on the state.

Comparisons have been made between the performance of privately owned firms and state firms. In the mid-1980s, many governments around the world reached the conclusion that state ownership was not working and that private ownership was much more productive. As a result, the global movement away from the state ownership of production and services towards private ownership and free enterprises has grown. One important aspect of this trend has been the sale of SOEs to the private sector with the expectations of improving their unsatisfactory performance.

Many theoretical and empirical studies have examined the differences between state-owned and private firms and what these differences imply for firm performance. Most studies suggest that privatizations have led to significant increases in firms' efficiency and profitability as Megginson and Netter (2001), Djankov and Murell (2002), Lopez de

Silanes (2005), Nellis (2005) and Megginson (2005) have reported. This has been the case in the United Kingdom (Parker & Martin, 1995), in China (Wei *et al.*, 2003), and in Romania (Earle & Telegdy, 2002).

The same conclusion has been reached by multi-country studies that employ samples of firms privatized in developed countries (Megginson *et al.*, 1994; D'Souza *et al.*, 2005), developing countries (Boubakri & Cosset, 1998; Boubakri *et al.*, 2005), and East European countries (Claessens & Djankov, 2002). In order to capture the privatization effect on the firms' performance, this current study used a dummy variable that was coded 1 after privatization and 0 before privatization. On the basis of the above, this study hypothesized the following hypothesis:

H₃: Privatization affects a firm's performance.

4.3.3 Liquidity

Liquidity reflects the firm's ability to meet its short-term objectives and is significant for short-term lenders, particularly for suppliers supplying goods and services on credit and banks and other entities providing unsecured debt. That is because creditors are dependent on the record of firm payments for their risk-assessment process.

Liquidity also enables companies to conduct negotiations with lenders to delay payment, and they may leverage liquidity in investments and improve the firm's ability to acquire loans at reasonable interest rates (Kallberg & Parkinson, 1993; Rees, 1995). Liquidity is

viewed as one of the most significant determinants of performance as it impacts the opportunity of a firm to obtain viable investments and hence superior performance through its cash contributions for continuous operating expenses. It also maximizes the versatility of the firm in terms of capital investments or expenditures. Furthermore, enhancing the ability of the firm to acquire short-term borrowing is significant in the short-term investment process, and firms having good liquidity have a good potential to receive such loans.

A large number of empirical studies have shown that an increase in profitability following divestment might involve some liquidity issues. The argument has been made that a negative trade off exists between profitability and liquidity. Focusing only on profitability leads to overlooking the whole picture and actual firm performance, and this could mean that a significant profitability increase may be coupled with a liquidity drop, which could eventually lead to bankruptcy if this drop off persists (Abraham, 2006).

Liquidity is considered to be an important performance determinant because liquidity influences a firm's opportunity to engage in viable investments and thus performance, by providing firms the necessary cash for on going operating expenses. It also increases a firm's flexibility for capital investments or expenditures. Firms demand liquidity in anticipation of future financing needs either because getting financing now is either cheaper or because a risk exists that financing will be unavailable if a firm waits until the need for funding arises. An entrepreneurial firm has an investment opportunity with

a known outcome, but only part of the return is pledge able to investors. When the pledge able income is insufficient to cover full investment costs, a firm has to cover the gap with funds accumulated in the past. As a result, a firm's net worth constrains that firm's investments. Therefore, this study uses current ratio (current assets to current liabilities) as a proxy for liquidity, which is consistent with other prior studies (Friedlob & Schleifer, 2003).

Liquidity, as measured by the ratio of current assets to current liabilities, is expected to improve as a result of improving the firm performance. In developing countries, most assessments show that most improvement in financial performance is reflected in a significant increase in the liquidity ratio (Kikeri & Nellis, 2004). This discussion leads to the following hypothesis:

H₄: A relationship exists between a firm's liquidity and that firm's performance.

4.3.4 Capital Expenditure

Capital expenditure refers to a firm's expenditures to either obtain or enhance productive assets like buildings, machinery equipment and vehicles in an attempt to maximize the company's capacity/efficiency over a single accounting period. Capital expenditure is also known as capital spending. Governments believe that a greater stress on efficiency will result in an increase in a firm's capital investment spending.

National governments, however, have utilized SOEs as instruments to accelerate slow growing economies by additional investment spending. As a result, these firms always have had a credit rating that allows them to borrow almost unlimited funds at prime rates. This would suggest that higher investment spending positively influences a firm's performance (Megginson & Netter, 2001; La Porta & Lopez-De-Silanes, 1999). This study current assumes a relationship between capital investment spending and firm performance. To evaluate this relationship, this study proposes the following hypothesis:

H₅: The capital expenditures of a firm impact that firm's performance.

4.3.5 Employment

The employment strategy in performance can be analysed through the number of employees. Employment can also be used to estimate whether or not SOEs are over-staffed. Employment level is a crucial issue in a company's performance. Enterprises employ people to help in carrying out daily activities, and the number of people employed depicts either the number or the magnitude of the tasks. However, employment levels are a rather ambiguous aspect of enterprise performance, depending on a firm's circumstances. Thus, high employment accompanying high production may indicate success while high employment at other times may constitute blatant over-manning, which has been a main prediction of the Agency Theory.

The aim of this study is to examine whether efficiency gains result from reductions in the labor force. Similar to prior studies by Megginson *et al*, (1994) and Frydman *et al*.,

(1997), this study employs the total number of employees to measure employment.

Based on the above discussion, the following hypothesis is proposed:

H₆: A relationship exists between employment and a firm's performance.

4.3.6 Productivity

Productivity has been defined in several ways. Roger (1998) defined productivity as something that people produce with minimal or no effort. Along the same lines, Sutermeister (1976) defined productivity as the output for every hour an employee works, with quality considered. Additionally, Bell (2004) defined productivity as the optimum function of a firm's performance including quality. Therefore, productivity can affect a firm's performance through both the quantity and quality of production, production costs, and labor productivity.

Several practical techniques have been utilized for measuring productivity with the most used being partial productivity measures. Specifically, the partial productivity ratio is computed by dividing the total output by an input factor. For example, labor productivity can be measured through the ratio between total output and labor input. In the case in which it is challenging to calculate partial productivity ratios because of the lack of a total output figure, an even simpler method can be used. This metric involves dividing a typical output (number of serviced customers/production amount of product) by an essential input (machine hours/labor hours). This current study uses labor productivity to measure a firm's productivity. Anderson *et al.* (1997) conducted a study

in Poland, Romania, Slovak Republic and Slovenia and presented an extensive analysis and showed that improved labor productivity resulted in considerable improvements in a firm's performance. On the basis of this discussion, this study proposes the following hypothesis:

H₇: A relationship exists between a firm's productivity and the firm's performance.

4.3.7 Ownership

Ownership is considered as rights to a firm's control and a firm's operation. The ownership structure (Private or Public) has a strong impact on a firm's performance. Schools of thought and empirical studies, have pointed to improved efficiency under private ownership compared with public enterprises under public ownership.

Theories such as the Property Rights Theory, the Public Choice Theory, the Principal-Agent Theory, and the Austrian School of Economics, as well as some new theories like the new political economics, the new institutional economics and the neo-Austrian School of Economics generally favour private ownership and view state ownership as inefficient, especially when the market is characterized as competitive. Also prior studies such as those of Hansmann (1990) Boubkri and Cosset (1998) and Frydman *et al.* (1997) have all shown that private ownership creates considerable improvements of a firm's performance in terms of most performance metrics.

Such improvements were related to ownership owing to the stress of the new owners on profit objectives and new investments that resulted in improvements. These effects were measured through two ownership categories: ownership type and ownership percentage. In this study, ownership is gauged through ownership percentage based on whether the ownership is either private or state. The study focuses on the sequencing of changes that either followed the privatization program or existed prior to the privatization program being implemented. Before privatization the government of Libya before controlled 100 percent of the firms before privatization, but after the privatization program adopted by the government was a percent of ownership that controlled of the firms.

For this reason, the percentage of ownership was chosen to measure the ownership and for the purpose of comparing firm performance before and after privatization to determine how effective of ownership has been in promoting performance improvement. Consistent with Kocenda and Svejnar (2004) and Kikeri *et al.* (1992), the contention in this current study is that ownership percentage plays a key role in enhancing the performance of the firm post-privatization. Therefore, this study proposes the following hypothesis:

H₈: A relationship exists between firm ownership and firm performance.

Table 4.1 below summarizes the selected metric for each variable discussed in this section.

Table 4.1
Variables for Analyses

Variable	Metric	Previous studies measuring performance
Dependent variable		
Profitability	<p>Return on Sales = $\text{Net Income} \div \text{Sales}$</p> <p>Return on Assets = $\text{Net Income} \div \text{Total Assets}$</p> <p>Return on Equity = $\text{Net Income} \div \text{Equity}$</p>	<p>Megginson <i>et al.</i> (1994), La Porta and Lopez-de-Silanes (1997). Grosfeld and Nivet (1997). Frydman <i>et al.</i> (1997), Commander <i>et al.</i> (1996), Yarrow (1986), Boycko <i>et al.</i> (1996).</p>
Operating Efficiency	<p>Efficiency = Real $\text{Sales} \div \text{Number of Employees}$</p>	<p>Kikeris <i>et al.</i> (1992), Boycko, Shleifer and Vishny (1993), Megginson <i>et al.</i> (1994). La Porta and Lopez-de-Silanes (1997), Anderson <i>et al.</i> (1997), Frydman <i>et al.</i> (1997), Earle and Estrin (1997), Dewenter and Malatesta (1998).</p>
Independent variable		
Capital Investment	<p>Real Capital Expenditures</p>	<p>Megginson and Netter (2001), Nash and van Randenborgh (1994), and Dewenter and Malatesta (1998).</p>
Employment	<p>Number of employees</p>	<p>Megginson <i>et al.</i> (1994), Frydman <i>et al.</i> (1997), La Porta and Lopez-de-Silanes (1997), Commander <i>et al.</i> (1996), and Earle and Estrin (1997).</p>
Ownership	<p>Percentage of ownership (private percentage or state percentage)</p>	<p>Boubkri and Cosset (1998), Frydman <i>et al.</i> (1997). Kocenda and Svejnar (2004), Nellis and Shirley (1992).</p>
Productivity	<p>Real sales</p>	<p>Earle and Telegdy (2002). Ehrlich <i>et al.</i> (1994), Frydman <i>et al.</i> (1999), Villalonga (2000), and Wallsten (2001).</p>
Liquidity	<p>Current Ratio = $\text{current assets} \div \text{current liabilities}$</p>	<p>Megginson <i>et al.</i> (1994), and La Porta and Lopez-de-Silanes (1997).</p>

4.4 DATA

4.4.1 Type and Source of Data

This study has incorporated two types of data (primary data and secondary data) in the analysis to ensure the reliability and validity of the study (Gujarati, 2006). In addition, the adoption of both types of data is important to get a clear picture of the SOEs' performance before and after the privatization policy was implemented. The period of collected data was 2002–2010. This period is considered sufficient to cover the period before and after the privatization programme in Libya.

The main sources of the primary data are selected SOEs and their workers. The primary data involved the background and financial data of SOEs. These data were collected through a survey that involved 13 industrial companies in Libya. The main tool used in this study was a questionnaire. The survey was carried out in the selected sites in Libya including Tripoli, Zeliten, and Sbrata. The targeted respondents were managers and workers.

The secondary data was gathered using library research. Some examples of the secondary data used in this study were the financial data of the selected SOEs. The main sources of the secondary data were the annual reports of firms, official reports and books from several local and state governmental institutions (e.g., the Central Bank of Libya Statistical Department and the Ministry of Industry), and international institutions such as the World Bank, the International Monetary Fund, the World Development

Organization (WDO), the Arab Development Organization (ADO), and the Arab Monetary Fund (AMF). In addition, other information has also been collected from different international sources.

4.4.2 Collection of Data

In the first step, a questionnaire was developed based on previous literature and interview sessions with the industrial company supervisors. The questionnaire was then designed and improved after a pilot study was conducted. This pilot step involved training participants, ensuring that the questionnaire was well understood by the target group, and considering any comments given by this test group. In addition, this step also measured the test-re-test reliability of questionnaire. For the pilot study, five copies of questionnaire were distributed among workers in each company, giving a total of 65 copies, of which 55 copies were completed. Only 13 copies were distributed to managers, all of which were completed.

To test the reliability of answers the questionnaire was distributed to the same respondents a second time after a period of time exceeding two weeks. After comparing the correlations between the two scores obtained, no significant discrepancies existed, indicating the reliability of these answers. Once the first step had been completed, the questionnaire was amended to clear up any problems noted, and a comprehensive questionnaire was then developed for distribution to the study group. None of the respondents used in the pilot project were used in the study.

In the second stage, the questionnaire was distributed during the period from July to September 2012. Two groups of respondents were given the questionnaire. The first group comprised managers of SOEs. The respondents were asked open-ended questions about the process of privatisation and its progress. The second group of respondents comprised the workers of SOEs. They were asked questions about matters in their particular area of expertise. This allowed investigation of their opinions and the reasons for the SOEs restructuring and in turn to infer causal relationships between and among the variables. The process of distribution and collection of the questionnaire took eight weeks: four weeks for distributions and four weeks for receiving their responses. Table 4.2 indicates the level of response obtained.

Table 4.2
Response Rate for the Questionnaire

	Managers	Workers
Number of questionnaires Distributed	130	800
Responses	113	634
Non-Responses	17	166
Response rate	87 percent	79 percent

Table 4.2 above shows the response rate for workers and managers. A total of 800 questionnaires were distributed to workers of which 634 were returned, giving a response rate of 79 percent with the non-return of 166 questionnaires, which was deemed relatively insignificant. A total 130 questionnaire were distributed to managers of which 113 were received, giving a response rate of 87 percent with the non-return of

17 questionnaires. Both were excellent response rates, exceeding the 25 percent to 35 percent usable response rate Fellows and Liu (2003) suggested that was needed to be able to draw conclusions from the results. It also met Dillman's criteria of an average acceptable response rate for a survey of between 50 percent and 92 percent (Saunders *et al.*, 2009). Secondary data for each SOE were collected for the period from 2002 to 2010; this was the third stage. It was collected from financial documents such as income statements, balance sheets and other supporting financial documents. These were used in order to assess the impact of privatization on the operating efficiency, profitability of the firm performance. Table 4.3 shows the sources of the secondary data gathered.

Table 4.3
Sources of Secondary Data

Variable	Source of Data
Profitability	Balance Sheets
Operating Efficiency	Balance Sheets, Financial Documents
Capital Expenditure	Balance Sheets
Employment	Financial Documents
Productivity	Income Statements
Ownership	Financial Documents
Liquidity	Balance Sheets

4.5 QUESTIONNAIRE DESIGN

The questionnaire was designed in a user-friendly multiple-choice format. The questionnaire was distributed to the relevant managers of SOEs and workers. Appendix 1 and Appendix 2 show examples of questionnaires that were distributed. The

questionnaire comprised 15 questions related to the nature of privatization and the general nature of the company. The questions in the questionnaire focused on the possible problems that SOEs might face when they are transformed to the private firms and whether these problems prevent the success of the privatization programme. A semi-structured approach with mostly multiple-choice questions was selected. The multiple-choice questions were based on a 5-point Likert-type scale measuring the level of agreement with each statement. The scale ranged from 1 = strongly disagree to 5 = strongly agree. The rating scale for the questionnaire is shown in Table 4.4.

Table 4.4
Rating Scale for the Questions

Point	Orientation	Average
5	Strongly Agree	$4.50 \leq \text{Average Index} \leq 5.00$
4	Agree	$3.50 \leq \text{Average Index} \leq 4.50$
3	Not Sure	$2.50 \leq \text{Average Index} \leq 3.50$
2	Disagree	$1.50 \leq \text{Average Index} \leq 2.50$
1	Strongly Disagree	$1.00 \leq \text{Average Index} \leq 1.50$

The questions used in the questionnaire were selected to measure profitability and operating efficiency as a dependent variable, and liquidity ratio, capital expenditure, ownership structure, productivity, employments a independent variables. The workers and managers were asked to state their feelings and experiences about the privatization process. To encourage participation, each respondent was approached by telephone prior to giving them the questionnaire or personally handed over. The questionnaires were distributed to all sub-managers of companies, and the researcher spoke to them face-to-

face in order to obtain information and to facilitate the completion of the survey study process.

4.6 SAMPLING PROCEDURE

There were 13 SOEs from Libyan industries, which were selected as samples for the study. Table 4.5 below shows details about the study sample.

Table 4.5
The Study Samples

Company Name	Location
Al Murgab Cement Company	Al Murgab
Zeliten Cement Company	Zeliten
Libda Cement Company	Libda
Suk El Khamis Complex for Cement	Suk El Khamis
Alwatanya Company for the Feed Industry	Tripoli
Al Kass Cement Company	Msallata
Libyan Tobacco Company Contribution	Tripoli
Rabat's Aistoric Fish Canning	Sbrata
Engineering Industries Company Contribution	Tajora
Libyan Company for Pipes Contribute	Tripoli
Development Company for Vegetable Oil	Isbea
Alahlya Cement Company	Alkamis
Spring Mineral Water Company	Suke Bn Kesher

The total number of workers in these companies was approximately 16,000. Given the varying number of workers in each company, sampling error was avoided by using a stratified sampling technique. The first step in the process to obtain a representative sample from the companies was to determine the entire number of workers in each company and then to classify those workers separately. In order to acquire a level of confidence of 95 percent, a random sample of 5 percent of workers was chosen from each company. Table 4.6 below offers more details about the sample size drawn from each company.

Table 4.6
Sample Size Drawn From Each Company

Company Name	Population Size	Percent of total each stratum	Sample Size
Al Murgab Cement Company	980	× 5 percent	49
Zeliten Cement Company	1020	× 5 percent	51
Libda Cement Company	1260	× 5 percent	63
Suk El Khamis Complex for Cement	940	× 5 percent	47
Alwatanya for the Feed Industry	1520	× 5 percent	76
Al Kass Cement Company	1160	× 5 percent	58
Libyan Tobacco Contribution	1580	× 5 percent	79
Rabat's Aistoric Fish Canning	900	× 5 percent	45
Engineering Industries Contribution	1200	× 5 percent	60
Libyan Company for Pipes Contribute	1460	× 5 percent	73
Development for Vegetable Oil	1280	× 5 percent	64
Alahlya Cement Company	1340	× 5 percent	67
Spring Mineral Water Company	1360	× 5 percent	68
Total	16,000	× 5 percent	800

In this study, the sample was divided into managers and workers. The worker sample was divided into sections to proportionally disaggregate them and to solve the disparity of their numbers in the companies.

Moreover, the researcher also used an econometric method to answer the research questions. Primary data was analysed using basic descriptive statistics along with econometric analysis using panel data. This study was as an exploratory study using descriptive economic analysis – a divergence from the norm of many previous economic studies that have focused on privatization.

4.7 METHOD OF ANALYSIS

This study has used both primary data analysis and microeconomic panel data analysis.

4.7.1 Primary Data Analysis

Primary data analysis involves analysis of data obtained from the survey. In the analysis, the data are summarized by using descriptive statistics and analyzed by using inferential analysis. The main measures of descriptive analysis are the means and standard deviations. Sekaran (2003) contended that a descriptive study is conducted to determine and describe the variables characteristics in a given situation. Also, Hedrick *et al.* (1993) contended that a descriptive study aims to shed light on the phenomenon in its natural

occurrence. Other results of primary data analysis have been reported using frequency and percentage.

Furthermore, the inferential analysis utilizes correlations and the comparison of means to achieve the objectives of this study. Correlation analysis examines the inter-correlations among all variables and gives the direction and strength of a relationship through correlation coefficient analysis. Correlation coefficient indicates the strength of the correlation between the two variables (Salkind, 2000). Mean comparison analysis was also used to test the effect of the privatization programme on the firm performance. Basically, this analysis looks at the mean differences ($\mu_d = \mu_1 - \mu_2$) of two variables before and after privatization programme. The null and alternative hypotheses of mean comparison analysis are $H_0 : \mu_d = 0$ and $H_1 : \mu_d \neq 0$, respectively. If the null hypothesis is rejected at 5 percent level of significance, then we can conclude that mean differences exist.

4.7.2 Microeconomic Panel Data Analysis

Microeconomic panel data analysis using a balanced panel data set of the SOEs in the context of Libyan industry was also conducted to show the effect of privatization programmes. Specifically, the panel data set was employed owing to its appropriateness in capturing the variation of SOEs performance indicators over time. This method is also capable of controlling individual, firm-specific heterogeneity and the temporal changes of firms operating in the market environment (Bortolotti et al., 2002). This panel data

analysis avoids problems stemming from the possible correlations between non-observable firm features and the individual variables. Moreover, it eradicates the underlying heterogeneity of the sample firms (Hausman & Taylor, 1981). Underlying heterogeneity may lead to correlations with the dependent variables that would lead to coefficient bias.

This study used two models to analyse panel data, namely, the fixed effects model (FEM) and the random effects model (REM). Prior to employing further panel data analysis, certain econometric assumptions have to be tested.

Let us take the multiple linear regression models as shown by Equation [7].

$$[7] \quad y_{it} = \alpha_i + c_i + \beta x'_{it} + \mu_{it}; \quad i = 1, \dots, N, t = 1, \dots, T$$

where y_{it} denotes the dependent variables or $y = [\text{ROA}, \text{ROS}, \text{ROE}, \text{RS}]$, $x'_{it} x'_{it}$ denotes a k -dimensional row vector of explanatory variables with the exclusion of the constant, α_i denotes the intercept, c_i denotes an individual-specific, and β denotes a k -dimensional column vector of parameters. An idiosyncratic error term is denoted by μ_{it} where $\mu_{it} \sim iid(0, \sigma_i^2)$. The following assumptions must be fulfilled in the panel data analysis:

$$i) \quad E(\mu_{it}) = 0 \text{ and } E(c_i) = 0$$

- ii) $E(\mu_{it} | X_i, c_i) = 0$ (Mean independent)
- iii) $Var(\mu_{it} | X_i, c_i) = \sigma_\mu^2 > 0$ and finite (homoscedastic and no serial correlation).
- iv) $Cov(\mu_{it}, \mu_{is} | X_i, c_i) = 0, \forall s \neq t$ (No serial correlation).
- v) $Var(\mu_i | X_i, c_i) = \Omega_{\mu,i}(X_i)$ is p.d. and finite.

The Data Generation Process (DGP) is described by:

PL1: Linearity

$$y_{it} = \alpha_i + \beta x'_{it} + c_i + u_{it} \quad \text{where: } E(u_{it}) = 0, E(c_i) = 0$$

The model is linear in parameters α, β , individual c_i , individual and error u_{it} .

PL2: Independence

$$\{x_i, y_i\}_{i=1}^N \quad \text{I.I.D. (Independent and Identically Distributed)}$$

While the observations are independent throughout individuals, this does mean that it is so throughout time and random sampling of individuals ensures this.

PL3: Strict Erogeneity

$$E(\mu_{it} \setminus X_i, c_i) = 0 \text{ (mean independent)}$$

The researcher assumes that the idiosyncratic error term μ_{it} not to be correlated with all past, current and future time periods explanatory variables of the same individual. This is a significant assumption that excludes lagged dependent variables. Moreover PL3 also considers the idiosyncratic error not to be correlated with the individual specific effect.

PL4: Error Variance

- a) $V(\mu_i | X_i, c_i) = \sigma_u^2 I > 0$ and finite (homoscedastic and no serial correlation).
- b) $V(\mu_{it} | X_i, c_i) = \sigma_u^2 > 0$ $cov(\mu_{it}, \mu_{is} | X_i, c_i) = 0 \forall s \neq t$ (no serial correlation).
- c) $V(\mu_i | X_i, c_i) = \Omega_{u,i}(X_i)$ is p.d. and finite.

4.7.2.1 Fixed Effects Model

The fixed effects specifications consider company-specific effects to be fixed parameters that have to be estimated. The terms of fixed effect is due to the fact that, although the intercept may differ across entities, each entity or individual intercept does not vary over time, that is, it is time-invariant. The FEM would take full count of things such as geographical factors, natural endowments and any other of the many basic factors which vary between entities. Consider the regression model in equation [8] with the dependent and independent variables denoted as Y_{it} and X_{it} , respectively.

$$[8] \quad Y_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 Z_i + \varepsilon_{it}$$

where Z_i is an unobserved variable that varies from one entity to the next but does not change over time. The different across entity may be due to special features of each entity or individual. For instance, Z_i represents managerial style, managerial philosophy, or the types of market each organization is serving. All behavioral differences between entities referred to as individual heterogeneity. We want to estimate β_1 is the same for

all entities. Because Z_i varies from one entity to the next but is constant over time, the population regression model in Equations [8] can be interpreted as having n intercepts, one for each entity. Specifically, let $\alpha_i = \beta_0 + \beta_2 Z_i$. The Equation [8] becomes;

$$[9] \quad Y_{it} = \alpha_i + \beta_1 X_{it} + \varepsilon_{it} ; \quad i = 1, 2, 3, 4, \dots \dots N \text{ and } t = 1, 2, 3, 4, \dots \dots T$$

Equation [9] is known as Fixed Effects Model (FEM), in which Y_{it} denotes the dependent variable, i denotes the firm, t is the time, and α denotes individual effect that can be separated into fixed individual effect and considered constant over time, and is unique to the i th firm. Moreover, x denotes explanatory variables vector, β denotes the parameters and ε_{it} represents random unobserved component that comprises of unobserved shocks influencing firm performance.

Before assessing the validity of FEM, we need to apply test to check whether fixed effect should indeed be included in the model. To do this, the standard F -test can be used to check fixed effect against the simple common constant OLS method. The null hypothesis is that all the constants are the same (homogeneity), and that therefore the common constant method is applicable:

$$[10] \quad H_0 : \alpha_1 = \alpha_2 = \dots = \alpha_N$$

The F -statistics is:

$$[11] \quad F = \frac{(R_{FE}^2 - R_{CC}^2)/(N-1)}{(1-R_{FE}^2)/(NT-N-k)} \sim F_{(N-1, NT-N-k)}$$

where R_{FE}^2 is the coefficient of determination of the fixed effects model and R_{CC}^2 is the coefficient of determination of the common constant model. The null hypothesis is rejected if F -statistical is bigger than the F -critical at five percent level of significant.

To estimate the fixed effect take the data on individual i :

$$[12] \quad Y_{it} = \alpha_i + \beta_1 X_{it} + \varepsilon_{it}; t=1,2,\dots,T$$

Average the data across time, by summing both sides of the equation and dividing by:

$$[13] \quad \frac{1}{T} \sum_{t=1}^T (Y_{it} = \alpha_i + \beta_1 X_{it} + \varepsilon_{it})$$

Using the fact that the parameters do not change over time, we can simplify this as:

$$[14] \quad \begin{aligned} \bar{Y}_i &= \frac{1}{T} \sum_{t=1}^T Y_{it} = \alpha_i + \beta_1 \frac{1}{T} \sum_{t=1}^T X_{it} + \frac{1}{T} \sum_{t=1}^T \varepsilon_{it} \\ &= \alpha_i + \beta_1 \bar{X}_i + \bar{\varepsilon}_i \end{aligned}$$

The ‘bar’ notation \bar{Y}_i indicated that we have averaged the values of Y_{it} over time. Then subtract Equation [14] from Equation [12], term by term, to obtain:

$$Y_{it} = \alpha_i + \beta_1 X_{it} + \varepsilon_{it}$$

$$(-) \quad \bar{Y}_i = \alpha_i + \beta_1 \bar{X}_i + \bar{\varepsilon}_i$$

$$[15] \quad Y_{it} - \bar{Y}_i = \beta_1 (X_{it} - \bar{X}_i) + (\varepsilon_{it} - \bar{\varepsilon}_i)$$

In Equation [15], the intercept parameter has fallen out. These data are said to be in ‘deviation from the individual’s mean’ form. If we repeat this process for each entity, then we have a transformed model:

$$[16] \quad \widetilde{Y}_{it} = \beta_1 \widetilde{X}_{it} + \widetilde{\varepsilon}_{it}$$

The ‘tilde’ notation $\widetilde{Y}_{it} = Y_{it} - \bar{Y}_i$

Indicates that variables are in deviation from the mean form. Based on Equation [14], the coefficient estimates depend only on the variation of the dependent and explanatory variable within individuals. Thus, when estimating the effect of X on Y, for example, it is only the variation in Y and X over time for each entity that contributes to the estimated coefficients. The variation in Y from different entity with different X does not play a role.

4.7.2.2 Random Effects Model

Random effects model (REM) is based on the rationale that the variation throughout entities is deemed to be random and uncorrelated with the predictor/independent variables in the model. Green (2008) stressed that the significant difference between fixed and random effects is whether or not the unobserved individual effect signifies elements that are correlated with the repressors in the model as opposed to whether or not they are stochastic. Hence the variability of the constant for each entity comes from the fact that:

$$[17] \quad \alpha_i = \alpha + \nu_i$$

Where ν_i is a zero mean and constant variance, σ_ε^2 . The term ν_i is not directly observable; it is what is known as an unobservable or latent variable. The REM therefore takes the following form:

$$[18] \quad Y_{it} = (\alpha + \nu_i) + \beta_1 X_{it} + \varepsilon_{it}$$

$$[19] \quad Y_{it} = \alpha + \beta_1 X_{it} + (\nu_i + \varepsilon_{it})$$

$$[20] \quad Y_{it} = \alpha + \beta_1 X_{it} + \mu_{it}$$

The composite error term, μ_{it} consists of two components; ν_i which is the cross-section or individual specific, error component, and ε_{it} , which is the combined time series and cross-section error component and is sometimes called the idiosyncratic term because it

varies over cross-section (i.e. entity) as well as time. The usual assumptions made by the REM are that:

$$[21] \quad v_i \sim N(0, \sigma_v^2)$$

$$[22] \quad \varepsilon_{it} \sim N(0, \sigma_\varepsilon^2)$$

$$[23] \quad E(v_i \varepsilon_{it}) = 0; E(v_i v_j) = 0 \quad (i \neq j)$$

$$[24] \quad E(\varepsilon_{it} \varepsilon_{is}) = E(\varepsilon_{it} \varepsilon_{ij}) = E(\varepsilon_{it} \varepsilon_{js}) = 0 \quad (i \neq j; t \neq s)$$

That is, the individual error components are not correlated with each other and are not correlated across both cross-section and time-series unit. It is also very important to note that μ_{it} is not correlated with any of the explanatory variables included in the model. As a result of assumptions stated in Equation [21] – Equation [24], it follows that:

$$[25] \quad E(\mu_{it}) = 0$$

$$[26] \quad \text{var}(\mu_{it}) = \sigma_v^2 + \sigma_\varepsilon^2$$

As Equation [26] shows, the error term is homoscedastic. However, it can be shown that two different time error terms, μ_{it} and $\mu_{is} (t \neq s)$ are correlated; that is, the error terms of a given cross-section unit at two different points of time are correlated. The correlation coefficient, $\text{corr}(\mu_{it} \mu_{is})$, is as follows:

$$[27] \quad \rho = \text{corr}(\mu_{it} \mu_{is}) = \frac{\sigma_v^2}{\sigma_v^2 + \sigma_\varepsilon^2}; \quad t \neq s$$

Notice two special features of the preceding correlation coefficient first, for given cross-sectional unit, the value of correlation between error at two different times remains the same no matter how far apart the two time periods are, as is clear from Equation [27] remains the same for all cross-sectional units is, it is identical for all subjects.

The magnitude of the correlation ρ in Equation [27] is an important feature of the REM. If $v_i = 0$ for every individual then there are no individual differences and no heterogeneity to account for. In such case the pooled linear regression model is appropriate and there is no need for either a FEM or REM.

We can test for the presence of heterogeneity by testing the null hypothesis against the alternative hypothesis. The test statistics is based on the least square residuals for:

$$[28] \quad H_0 : \sigma_u^2 = 0 \text{ (there is no random effects)}$$

$$[29] \quad H_1 : \sigma_u^2 \neq 0$$

If the null hypothesis is rejected, then we conclude there are random individual differences among sample members, and that the REM is appropriate. On the other hand, if we fail to reject the null hypothesis, then we have no evidence to conclude that RE are present.

The Lagrange Multiplier (LM) tests of Breusch and Pagan (1980) can be used to test the presence of RE. The test statistic is based on the least square residuals. The test statistic for balanced panel is:

$$[30] \quad LM = \sqrt{\frac{NT}{2(T-1)}} \left[\frac{\sum_{i=1}^N (\sum_{t=1}^T \hat{\mu}_{it})^2}{\sum_{i=1}^N \sum_{t=1}^T \hat{\mu}_{it}} - 1 \right]$$

If we do not take this correlation structure into account, the estimate Equation [20] by OLS, the resulting estimators will be inefficient. The most appropriate method here is the method of generalized least square (GLS).

4.7.2.3 Hausman Test

In the determination of the more preferable model, this study made use of the Hausman test to identify whether or not the unobservable heterogeneity is correlated with the explanatory variables as recommended by Hausman (1978). This indicates that coefficients estimated with the help of fixed-effects estimator and those by random effect estimator are not statistically different. A significant result of the Hausman test calls for the use of the fixed effects model but an insignificant result calls for the use of the random effect model. In other words the null hypothesis that the random effects are consistent and efficient or the random effects are inconsistent and inefficient (as the fixed effects will be always consistent) that calls us to use the fixed effect model.

The test developed by Hausman has an asymptotic χ^2 distributions. If the null hypothesis is rejected, the conclusion is that the random effects model is not appropriate because the random effects are probably correlated with one or more repressors. In this case, fixed effects model is preferred to random effects model. If the null hypothesis were true, we can reject the random effects model in favor of fixed effects model. The estimates are reached with the help of STATA 11.0, which is described as an econometric package that enables corrections that involve error term heteroscedasticity and auto-correlation.

4.8 CONCLUSION

This chapter summarizes the research methods employed, specifically the quantitative methods utilized in the economic reality of Libya through the application of the privatization policy. The study used statistical method (SPSS) to analytically interpret the economic phenomenon, and a panel data analysis and equation [2] estimation to analyze the financial data. The estimates were drawn through STATA 11.0, an econometric package that enables corrections that involve heteroscedasticity and auto-correlation of the error term. The analysis was conducted by controlling various variables addressed in literature that could shed a light on the influence of SOEs privatization.

CHAPTER FIVE

ANALYSIS AND DISCUSSION OF RESULTS

5.0 INTRODUCTION

Chapter Five reveals the research findings of primary and secondary data analysis. The results of primary data analysis are reported in Sections 5.1- 5.4. Meanwhile, the results obtained from the microeconomic panel data analysis are discussed in Section 5.5 and Section 5.6. Finally, conclusion is provided in Section 5.7.

5.1 RESULTS OF PRIMARY DATA ANALYSIS

This session discusses the profile and attitude of respondents toward privatization and its impact of privatization on the firm's performance. The constraints of the implementation of privatization program in Libya have also been discussed.

5.1.1 Profile of Respondents

This section provides the profile characteristics respondents, managers and workers, who participated in the survey. Their profiles include education level, occupation, and experience. The profile analyses are reported in frequencies and percentages. This

analysis is considered as vital in this study because it helps us to understand the actual players in the implementation of privatization program.

5.1.1.1 Occupation of Respondents

Table 5.1 shows the different types of respondents' occupation. The managers as writers and auditors are the highest percentage of respondents. This group represents 16.8 percent of the total respondents. Meanwhile, the highest percentage of respondent among workers is classified as general worker, which involve 20.7 percent and followed by officer (19.6 percent). Therefore, general workers dominate the types of occupation in the selected SOEs. This excess of workers was a result of the government employment policy.

Table 5.1
Occupation Profile of Managers and Workers

Types of Occupation	Manager		Worker	
	Frequency	Percent	Frequency	Percent
Accountant	18	15.9	45	7.1
Engineer	18	15.9	38	6.0
Writer	19	16.8	24	3.8
Auditor	19	16.8	33	5.2
Supervisor	16	14.2	57	9.0
Administrative Assistant	13	11.5	83	13.1
Technician	10	8.8	59	9.3
Human Resource Management			10	1.6
Quartermaster			8	1.3
Interpreter			15	2.4
Officer			124	19.6
General Worker			131	20.7
Legal Consultant			7	1.1

5.1.1.2 Experience of Respondents

Furthermore, Table 5.2 exhibits years of experience of respondents. The results reveal that 35.0 percent of respondents have more than 26 to 30 years, which is the highest percentage of respondents. This indicates that the majority of the responding managers had sufficient experience in managing SOEs.

They can provide adequate and accurate information to the researcher. It was also noticed that all managers in the selected companies had worked in these companies for more than 25 years. On the other hand, the results of analysis reveals that more than 58 percent of respondents among workers have experience of five to 10 years and less than five years. Thus it was concluded that the SOEs had many young productive workers with reliable working experience.

Table 5.2
Experience Years of Respondents

Experience (years)	Manager		Worker	
	Frequency	Percent	Frequency	Percent
Less than 5	2	1.8	167	26.3
5 to 10	31	27.4	202	31.9
11 to 15	4	3.5	139	21.9
16 to 20	17	15.0	67	10.6
21 to 25	18	15.9	42	6.6
26 to 30	40	35.0	13	2.1
More than 30	1	0.9	4	0.6

5.1.1.3 Educational Level of Respondents

Table 5.3 displays educational level of respondents. Among managers, the sample indicates that 74.2 percent and 19.5 percent of respondents possessed undergraduate and master degree, respectively. It is estimated that more than 93 percent of the managers were skilled. In contrast, the percentage of workers who have secondary, intermediate and diploma is the highest (87.12 percent) This result explains that the government employs more skilled workers in the selected companies.

Table 5.3
Educational Level of Respondents

Educational Level	Manager		Worker	
	Frequency	Percent	Frequency	Percent
Little Formal	-	-	3	0.5
Elementary	-	-	50	7.9
Secondary	1	0.9	95	15.0
Intermediate	6	5.3	242	38.2
Diploma	-	-	215	33.9
Undergraduate	84	74.2	28	4.4
Masters	22	19.5	-	-
Doctorate	-	-	1	0.2

5.1.2 Attitudes of Managers Toward Privatization

Management support and cooperation of the respondents or workers to achieve the target of organization are generally acknowledged as a significant factor in the success of privatization programmes (Hawadana, 2003; Hall *et al.*, 2005). This is due to the fact that managers in the big organizations have direct responsibility in the privatization

process, and some of them may continue in their positions following privatization. In fact, Table 5.4 shows that 65.5 percent of respondents among managers prefer privatization programmes.

Table 5.4
Attitude of Managers Toward Privatization

Item	Frequency	Percent
No	39	34.5
Yes	74	65.5
Total	113	100.0

Furthermore, additional questions were asked to the respondents concerning their preference toward privatization programme and their responses are displayed in Table 5.5. This table shows that 31.9 percent of managers agreed that they fear production may not continue, 33.9 percent of them fear about inadequate capital, and 30 percent of them fear for their job loss following privatization.

5.1.3 Attitudes of Workers Toward Privatization

The fear perceived by the workers as far as privatization is concerned stems from the notion that privatization may result in their job loss. This notion holds some truth as shown by companies in both the U.K. and Thailand (Van de Walle, 1994). This is however, not often the reality as owners are more likely to retain their old employees or they may even employ more to assist successful management (Tordoffa, 1994).

Table 5.5
Causes of the Mangers being in Not Favoring of Privatization

	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Fear that Production would not Continue	15	13.3	21	18.6	3	2.6	-	-	-	-
Fear of Inadequate Capital	21	18	81	15.9	-	-	-	-	-	-
Fear of Losing their Jobs	10	8.8	24	21.2	5	0.4	-	-	-	-

For instance, in the context of Bangladesh, the contract of sale of firms mandated the new owners committed to refrain from conducting redundancies, as there were other alternatives for the government. These actions include collaboration with private sector in employing workers who are fired from the privatized firms (Vuylsteke, 1988). Owing to the significance of this factor, it is important to determine the perception of workers prior to the implementation of privatization programme. For the case of Libya, Table 5.6 shows that 61.5 percent of respondents were pro-privatization, whereas the remaining 38.5 percent were against it.

Table 5.6
Workers Attitudes Toward Privatization

Item	Frequency	Percent
No	244	38.5
Yes	390	61.5
Total	634	100.0

Furthermore, Table 5.7 shows the respondents' favor to privatization programme. The table clearly displays that 61 percent of the workers agreed to privatization because they expect to get higher salaries while 0.5 percent of them were neutral concerning salaries.

Table 5.7
Causes of the Workers Being in Favor of Privatization

	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Workers would get higher Salaries	186	29.3	201	31.7	3	0.5	-	-	-	-
Workers would have opportunities for promotion	144	22.7	239	37.7	7	1.1	-	-	-	-
Workers would have better Working Conditions	137	21.6	237	37.4	16	2.5	-	-	-	-

With regards to promotion opportunities, 60 percent of workers agreed with this expectation while one percent of the respondents were neutral. Meanwhile, 59 percent of the workers agreed with expecting better working conditions following privatization and two percent of the respondents were neutral. According to these results, it is logical to state that workers are of the consensus that these factors are significant reasons behind their pro-privatization stance.

On the contrary, there are 38.5 percent of respondents among workers who are against the privatization programme. Table 5.8, reflects the main reasons of workers toward their anti-privatization stance. Specifically, over 38 percent of respondents were agreed with the fearing of losing their jobs, 37.5 percent agreed (incorporated agree and strongly agree) with the fearing of discontinued production and finally, 37.4 percent agreed with the fearing of inadequate capital.

5.1.4 Perception of Respondents on Firm Performance After Privatization

Normally, the primary motivation of privatization among industrial firms originates from the need to improve performance. However, in the context of an economic environment where the economic policy reforms are employed simultaneously and sequentially, it become difficult to distinguish the effect of privatization on economic performance.

Table 5.8
Main Factors of Workers Infavor of Privatization

	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Fear that Production would not Continue	113	17.8	125	19.7	6	0.9	-	-	-	-
Fear of Inadequate Capital	112	17.7	125	19.7	7	1.1	-	-	-	-
Fear of Losing their Jobs	138	21.8	104	16.4	2	0.3	-	-	-	-

In Libyan context, the implementation of the privatization programme is for maximizing production, improving workers' income and minimizing the burden on the government subsidies to public firms. In this study, the firms' performance is gauged via questions that addressed many performance factors after the privatization. These include production method, profitability, sales and capital. The following sub-sections explain these aspects in detail.

5.1.4.1 Productivity

Productivity is considered as the association between the input used and the output produced in the production process. It is defined as the efficient utilization of inputs such as labor, capital, land, equipment, power and information regarding the produced commodities or the efficiency of production (Lopez-Calva, 1998). In other words, productivity is reflected by the ratio of output and input. The greater the ratio, the greater will be the productivity. In this context, it can be contended that following privatization, firms expect to increase their output because of the dynamic competition and higher motivation (Megginson *et al.*, 1994). Stated differently, privatization boosts efficiency and increases investment and hence output is expected to increase (Kikeri *et al.*, 1994). Several questions that arise after the implementation of privatization include those addressing production increase, labor productivity increase, input costs decrease, and improvement of production methods. Responses of the respondents to these queries are displayed in Table 5.9. This table shows that over 58 percent of the respondents agreed that the production of output increases after privatization, 56.6 percent agreed

with increase in labor productivity, 52.2 percent agreed with the minimization of production costs, and 45.1 percent agreed with some enhancement in the methods of production.

5.1.4.2 Profitability, Sales and Capital

In the developing nations, several studies assessed the pre-privatization and post-privatization performance of firms and concluded that privatization does lead to performance improvement (Kikeri & Nellis, 2004). Theoretical and empirical studies in literature show that ownership transfer from public to private sector should lead to the increase of the firms' profitability and efficiency as public enterprises often serve the objectives of politicians, which more often than not, excludes profit maximization (Megginson *et al.*, 1994; Megginson, 2001; Omran, 2004). On the other hand, owing to the specific economic standards that the private sector is operating under, the primary targets are profits and revenue increase.

In this study, the question Five Section [5, 6 and 7] in the survey were developed to cater to profitability, sales issues and capital after the implementation of privatization programme. The respondents' answers are displayed in Table 5.10. Over 45 percent of the respondents agreed that sales of firms increased after privatization and 46.9 percent agreed that profitability increased after privatization. These results may be attributed to the adequate capital owned by the privatized firms. Moreover, 69 percent agreed with the capital increase after privatization.

Table 5.9
Percentage of Production indicators

	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Increase in Production Quantity	-	-	66	58.4	29	25.7	18	15.9	-	-
Reduction in Unit Costs of Production	-	-	59	52.2	20	17.7	24	21.2	10	8.8
Increase in Labor Productivity	-	-	64	56	5	4.4	27	23	17	15.0
Improvement in Methods of Production	-	-	51	45.1	-	-	42	37.2	20	17.7

Table 5.10
Increase in Profitability, Sales and Capital

	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Increase in Sales	6	5.3	45	39.8	19	16.8	37	31.7	6	5.3
Increase in Profitability	5	4.4	48	42.5	9	8.0	39	34.5	12	10.6
Increase in Capital	34	30.1	44	38.9	9	8.0	19	16.8	7	6.2

5.1.5 Information, Decision-Making, Control and Supervision

Lack of authentic information of internal workplace (among management and workforce) and external workplace (in the market) reflects among the top issues facing public institutions. Contrastingly, the private sector has ample access to all relevant information owing to the presence of accuracy and transparency. In addition, management's daily supervision of staff and owner's supervision of management leads to direct relationship among all the parties and this stresses on the significance of private ownership (Gupta, 2005).

Furthermore, the changes brought about by the private sector are likely to eliminate restrictions and regulations that control the company and prevent quick processes of decision making. For instance, these centralized systems enable effectiveness of management as they can concentrate on the immediate business aims of the organization as opposed to the national objectives that has to do with social welfare.

In the survey, the questions were posed to address the above factors and the results are depicted in Table 5.11. The results show that more than 82 percent agreed with the improvement in observation and supervision after privatization, the second high important value reflects that the 75.5 percent agreed with the decision making, that is mean improvements in the privatization programme; and finally 69 percent for getting information.

Table 5.11
Information, Decision-Making, Control and Supervision

	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Getting Information	26	23.0	52	46.0	4	3.5	30	26.5	1	0.9
Decision Making	30	26.5	55	48.7	7	6.2	18	15.9	3	2.7
Observation and Supervision	37	32.7	56	49.6	2	1.8	18	15.9	-	-

5.1.6 Impact of Privatization on Workers

The great fear which most governments have expressed is that, the objectives of efficiency and profitability as a result of privatization can only be achieved at the cost of large scale job losses.

In addition the main objectives of privatization also include improving conditions of workers, both financially and environmentally. In the context of the former, incentives and bonuses are offered to the employees to encourage their productivity. In the latter improvement, management can boost higher performance of workers by enhancing their working environment and condition.

In this study, five questions were developed to determine the effect of privatization on the performance of workers. The results presented in Table 5.12 show that 56.9 percent of the workers agreed that job motivation is improved, 60 percent of them agreed with the improvement of working conditions, 71 percent agreed with the provision of improved incentives, and 61.6 percent agreed with improved health and safe workplace. It can thus be concluded that significant improvement took place following privatization in all factors as indicated in Table 5.12.

Table 5.12
Financial and Environment Factors after Privatization

	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Workers Motivation after Privatization	113	17.8	267	42.1	72	11.4	126	19.8	56	8.8
Health and Safety at Work after Privatization	102	16.1	288	45.5	97	15.3	104	16.4	43	6.8
Incentives after Privatization	113	17.8	223	53.2	78	12.3	145	22.9	57	11.8
Increase in Salaries after Privatization	117	18.5	217	34.2	91	14.4	113	17.8	96	15.1
Working Conditions after Privatization	147	23.2	223	36.8	85	13.4	125	19.7	44	6.9

5.1.7 Constraints and Obstacles to Privatization Programme in Libya

Private management and staff generally go against privatization programs. At the onset, managers are afraid that they may lose their positions because of privatization as they are often under qualified and lack the necessary knowledge concerning the nature of privatization (Hawadana, 2003). Therefore, gaining management and staff's trust in public institutions is a condition to the successful process of privatization (Hawadana 2003; Hall *et al.*, 2005). Decision makers should thus carry out initial field surveys in the target firm to determine the managers and workers' opinion and their agreement/objection towards privatization. In case of opposition, then decision makers may use various ways to approach management and staff in order to enlighten them on the benefits of the privatization program. The top most methods used include;

- i. Engaging management and staff in dialogue at the onset and providing them an overview of the concept of privatization, its objectives and significance, benefits and privileges that the workers may obtain in lieu of giving up their control over the institution (partially or completely) (Awamleh, 2002).
- ii. Decision makers may also stage media campaigns that feature information concerning the actual financial status of the targeted companies.
- iii. Another approach is to bring forward mechanisms that would secure staff rights of job retention after privatization like compensation payment, free or low-priced shares in the privatized firms, early retirement and severance benefits to bring

about voluntary turnover instead of layoffs to those affected by the privatization programme (Kikeri & Nellis, 2004).

It is worth noting that developing countries, like New Zealand, have employed the above methods before any privatization program. The New Zealand government published information involving damages resulting from public sector organizations' under performance, which renders privatization acceptable and even necessary to the public (Shirley & Nellis, 1991).

Another instance is SOEs employees in the context of Ghana, which were considered redundant. These employees were given the recourse of ten years salary (Clifford, 1993).

Table 5.13 shows the frequency and percentage of managers' attitudes towards obstacles to privatization in Libya. From Table 5.13, the field survey pointed out that all the obstacles mentioned having percentage responses of less than 25 percent (agree or strongly agree). As a result of that, privatization in Libya has faced small difficulties according to the views of the managers.

Table 5.13
Manager's Attitudes towards Obstacles to Privatization in Libya

	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Shortage Data	-	-	19	16.8	33	29.2	41	36.3	20	17.7
No Clear Monetary Policy	-	-	10	8.8	22	19.5	55	48.7	26	23.0
Legal Transparency	-	-	13	11.5	22	19.5	56	49.6	22	19.5
Excessive Regulation and Bureaucracy.	-	-	11	9.7	17	15.0	60	53.1	25	22.1
High Taxes and Tariffs	1	0.9	15	13.3	20	17.7	54	47.8	23	20.4
Lack of Loans and Credit	-	-	18	15.9	28	24.8	50	44.2	17	15.0
Poor Infrastructure	2	1.8	24	21.2	31	27.4	43	38.1	13	11.5
Corruption	10	8.8	14	12.4	2	1.8	48	42.5	39	34.5
Governmental Subsidies	2	1.8	17	15.0	1	9	43	38.1	50	44.2
Shortage in Skills	2	1.8	18	15.9	2	1.8	43	38.1	48	42.5
Don't understand Privatization	-	-	21	18.6	3	2.7	46	40.7	43	38.1
Political and Economic	3	2.7	14	12.4	2	1.8	38	33.6	56	49.6

5.2 DESCRIPTIVE ANALYSIS

Table 5.14 displays a summary of the main variables and some of its statistical characteristics. The total observations are 104. This table shows that the mean of PFT variable is extremely high, but its standard deviation is extremely small. These results indicate that there is stability in the profit maximization during the study period.

Meanwhile, OPE shows an extremely high mean and extremely high standard deviation, which indicate that the whys of OPE are tableted away from mean during the period of study. Furthermore, other variables except PFT, OPE, LIQ and EMP show low mean and low standard deviation.

Table 5.14
Summary Statistics for the Variables

Variable	Mean	Std. Dev.	Min	Max
OPE	101055.1	329714.8	0.94	1864234.0
PFT	5003093	1.544407	-3.36	5.011107
LIQ	44.6938	246.0469	0.39	2148.0
PRO	1.688807	3.911107	334392	2.11108
CAP	14.25641	8.873447	1.00	29.0
OWS	3.794872	3.220708	1.00	11.0
EMP	607.0513	438.9051	100.0	1682.0

5.3 CORRELATION ANALYSIS

Correlation measures the strength of the relationship among variables. The result of Pearson correlations of all variables is displayed in Table 5.15. Specifically, the results show that there is positive correlation between OPE and all variables except LIQ and

EMP. A positive correlation indicates that OPE increases as these variables increase. The strongest significant correlation exists between OPE and OWS. Meanwhile, PFT has positive correlation with other variables except PRO and LIQ. Among these variables, the strongest significant correlation is between PFT and PRI with the coefficient correlation value 0.56. Among all variables, the correlation between PRI and OWS is the highest since the correlation value is 0.79. The lowest correlation is between EMP and LIQ with the negative coefficient correlation value -0.14.

5.4 MEAN COMPARISON ANALYSIS

The mean comparison analysis was carried out to find whether there are any significant differences between mean of each variable before and after privatization programme. The analysis involved two samples, pre-privatization and post-privatization samples. The paired-samples *t*-test for mean difference has been used to tests the data. Table 5.16 shows the results of paired-samples *t*-test using the mean comparison analysis of each variable. The results show that the mean difference values of PFT, OPE, CAP, OWS, PRO and EMP are significantly different from zero since all the corresponding two-tailed *p*-value are less than 0.05. These results indicate significant difference in the mean values of these variables in the pre- and post-privatization, except variable EMP. We can conclude that the mean values of PFT, OPE, CAP, OWS, PRO in the post-privatization are higher than pre-privatization. In contrast, the mean of EMP in the post-privatization is lower than pre-privatization.

Table 5.15
Person Correlation Coefficients

Variable	OPE	PFT	PRI	LIQ	PRO	CAP	OWS	EMP
OPE	1.000							
PFT	0.203**	1.000						
PRI	0.236**	0.563**	1.000					
LIQ	0.030	0.090	0.120**	1.000				
PRO	0.166**	0.022	0.165**	0.032	1.000			
CAP	0.064	0.127**	0.058	0.239**	0.212**	1.000		
OWS	0.355**	0.533**	0.785**	0.0898	-0.043	-0.018	1.000	
EMP	-0.144**	0.149**	-0.098	-0.136**	0.455**	0.336**	0.049	1.000

Note: ** is significant at five percent levels.

Table 5.16
Mean Comparison of Variables

Variables	Mean		Std. Dev.		Std. Err.	t	Sig.
	Before (μ_B)	After (μ_A)	Before	After			
PFT	-355907	1.42	1.13	1.42	23637	-7.28	0.000**
OPE	23663.4	179018.62	29773.20	459773.90	73622	-2.11	0.042**
LIQ	15.3	74.10	30.68	3215.34	51.46	-1.14	0.261
CAP	3.8	9.41	4.45	5.09	69490	5.48	0.000**
OWS	1.0	5.00	0.16	2.18	0.3485	-11.37	0.000**
PRO	5.21	5.45	2.3	1.04	8574	1.49	0.045**
EMP	635.5	578.64	461.66	418.98	19.71	2.88	0.007**

** Value is significant at five percent

5.5 THE RESULTS OF MICROECONOMIC PANEL ANALYSIS

The analysis consists of three main sections. The first section reveals the results of the fixed effects estimation results, the second section reveals the results of the random effect estimation results and the third section presents the Hausman test results.

5.5.1 Fixed Effects Estimation Results

Before estimating, the verification of the models FEM has been done using F -test for model 1- model 6. The F -statistics results are presented in Tables 5.17 and Table 5.18. The results of verification show that the prob. (F) for these models are less than five percent, it means that FEM can be used to estimate the models.

Using FEM estimation, Model 1, Model 2, and Model 3 have been estimated with OPE as dependent variable. Model 1 is considered as a basic model, which include PRI, PRO, CAP and EMP as independent variables. In addition to these variables, OWS and LIQ are also included in Model 2 and Model 3, respectively. Furthermore, Table 5.18 displays FEM estimation results using PFT as dependent variable. In this table, three alternative models, Model 4, Model 5, and Model 6 have been estimated with PFT as dependent variable. Model 4, is the basic model, which includes PRI, PRO, CAP and EMP as independent variables. Model 5 and Model 6 include OWS and LIQ, respectively as an additional variable in each model.

Table 5.17
Fixed Effects Estimation Results: Operating Efficiency

Model 1							
	Coef	Std.Err.	t- statistics	P- value	Prob	R ² :within	Between
							Overall
							Prob.(F)
Const	22219.53	74807.45	0.301	0.767	0.0067	0.147	0.1552
PRI	223203.11	100390.700	2.221	0.029**			0.0008
PRO	0.003	0.001	2.960	0.004**			
CAP	24470.09	3323.87	1.340	0.182			
EMP	-241.51	84.70	-2.852	0.005**			
Model 2							
Const	-17122.47	74597.670	-0.230	0.819	0.0013	0.2015	0.2076
PRI	16523.77	129639.101	0.131	0.899			0.0007
PRO	0.003	0.001	2.872	0.005**			
CAP	3939.50	3242.661	1.211	0.228			
OVS	43832.38	18067.940	2.432	0.017**			
EMP	-251.10	82.539	-3.041				
Model 3							
Const	39684.08	77133.970	0.154	0.608	0.0103	0.1560	0.1590
LIQ	-131.16	139.689	-0.941	0.350			
PRI	219541.20	100533.900	2.181	0.032**			0.0015
PRO	0.003	0.001	2.980	0.004**			
CAP	3778.27	3406.735	1.111	0.270			
EMP	-243.56	84.786	-2.873	0.005**			
Note: ** is significant at five percent level.							

Table 5.18
Fixed Effects Estimation Results: Profitability

Model 4								
	Coef	Std.Err.	t- statistics	P- value	Prob	R ² : within	Between	Overall Prob.(F)
Const	-2975559.01	3451067.12	-0.860	0.391	0.0021	0.1723	0.6767	0.3731 0.0000
PRI	1.53	4631290.01	3.303	0.001**				
PRO	-0.015	0.042	-0.360	0.719				
CAP	-270158.81	153338.90	-1.760	0.082**				
EMP	-2975559.02	3907.52	2.201	0.031**				
Model 5								
Const	-3410430.01	3549412.02	-0.960	0.301	0.0044	0.1753	0.7136	0.3800 0.0000
PRI	1.300	6168323.01	2.001	0.038**				
PRO	-0.017	0432344.0	-0.402	0.693				
CAP	-276023.70	154288.21	-1.79	0.077**				
EMP	8479.21	3927.27	2.160	0.034**				
OWS	484506.20	859685.77	0.561	0.574				
Model 6								
Const	-3076129.01	3576101.01	-0.86	0.392	0.0050	0.1724	0.6783	0.3732 0.0000
LIQ	755.31	6476.32	0.123	0.907				
PRI	1.53	4660975.01	3.280	0.001**				
CAP	-266175.00	157943.71	-1.691	0.096**				
EMP	8597.08	3930.91	2.192	0.031**				
PRO	-0.015	0.043	-0.362	0.718				

Note: ** is significant at one percent and five percent levels.

5.5.2 Random Effects Estimation Results

The alternative model for panel estimation is REM. Lagrange Multiplier (LM) test has been conducted to verify using REM. This test also helps us to decide between a random effects regression and a simple OLS regression. The results of LM tests are shown in Table 5.19 and Table 5.20. These results prove that the null hypothesis can be rejected and suggest that REMs is appropriate. Furthermore, Table 5.19 presents the results of random effects estimation of Model 7, Model 8, and Model 9. In these models, OPE represents the dependent variable. Model 7 is basic model, which includes PRI, PRO, CAP and EMP as independent variables. Model 8 and Model 9 include OWS and LIQ, respectively as an additional variable in each model.

Table 5.20 explains random effects estimation results of panel data using PFT as dependent variable. In this table, three alternative models, Model 10, Model 11, and Model 12 have been estimated. Model 10, is the basic model, which includes PRI, PRO, CAP and EMP as independent variables. Model 11 and Model 12 include OWS and LIQ, respectively as an additional variable in each model.

Table 5.19
Random Effects Estimation Results: Operating Efficiency

Model 7							
	Coef	Std.Err.	t- statistics	P- value	LM- test	Prob	R ² : within Between Overall
Const	53754.652	62272.581	0.862	0.388	43.22	0.0007	0.1419 0.3257 0.1625
PRI	142454.900	53516.233	2.662	0.008**			
PRO	0.003	0.001	3.063	0.002**			
CAP	4309.274	3134.686	1.374	0.169			
EMP	-225.217	79.294	-2.840	0.005**			
Model 8							
Const	20154.441	61660.622	0.333	0.744	26.12	0.0000	0.1936 0.5194 0.2203
PRI	-82544.843	98255.183	-0.840	0.401			
PRO	0.003	0.001	2.942	0.003**			
CAP	3986.778	3042.209	1.311	0.190			
OWS	45555.291	16892.144	2.703	0.007**			
EMP	-245.097	77.248	-3.176	0.002**			
Model 9							
Const	61130.975	63647.403	0.964	0.337	40.51	0.0016	0.1501 0.2808 0.1656
LIQ	-77.929	128.601	-0.611	0.545			
PRI	145635.001	53943.953	2.704	0.007**			
PRO	0.003	0.001	3.082	0.002**			
CAP	3963.155	3196.202	1.243	0.215			
EMP	-227.516	79.639	-2.988	0.004**			

Note: ** is significant at five percent level.

Table 5.20
Random Effects Estimation Results: Profitability

Model 10							
	Coef	Std.Err.	t- statistics	P- value	LM- test	Prob	R ² : within Between Overall
Const	-4691138.013	2904861.052	-1.612	0.106	48.04	0.0000	0.1718 0.6787 0.3736
PRI	1.788	2496399.064	7.135	0.000**			
PRO	0.014	0.040	-0.346	0.735			
CAP	-279889.823	146225.313	-1.911	0.056**			
EMP	9762.643	3698.889	2.645	0.008**			
Model 11							
Const	-5367627.036	2961890.032	-1.814	0.070	52.77	0.0000	0.1735 0.7370 0.3816
PRI	1.333	4719723.026	2.816	0.005**			
PRO	-0.017	0.040	-0.420	0.672			
CAP	-286382.746	146133.634	-1.963	0.050**			
EMP	9362.387	3710.646	2.522	0.012**			
OWS	917186.825	811420.252	1.132	0.258			
Model 12							
Const	-4753045.031	2974371.020	-1.601	0.110	47.42	0.0000	0.1720 0.6802 0.3737
LIQ	654.038	6009.783	0.111	0.913			
PRI	1.788	2520909.005	7.051	0.000**			
CAP	-276984.902	149364.900	-1.852	0.046**			
EMP	9781.943	3721.716	2.632	0.009**			
PRO	-0.013	0.040	-0.344	0.732			
Note: ** is significant at five percent levels.							

5.5.3 Hausman Test

The null hypothesis of the Hausman test states that REM is more appropriate than FEM. The results of the Hausman test of three models (Model 13, Model 14, Model 15) with OPE as the dependent variable are shown in Table 6.21. Prob. (χ^2) values of Model 13 (FEM1 and REM7), Model 14 (FEM 2 and REM 8), and Model 15 (FEM 3 and REM 9) are 0.801, 0.827 and 0.655, respectively. These prob. (χ^2) values are more than five percent level of significance, which means that the null hypothesis cannot be rejected. Thus, the REM is the most robust model.

Table 5.21

Hausman Test Estimation Results: Operating Efficiency

Model 13				
	(b) Fixed	(B) Random	(b-B) Difference	sqrt(diag(V_bV_B))
PRI	223203.1	142454.9	80748.2	84937.1
PRO	0.003	0.003	0.0001	0.0003
CAP	4470.0	4309.3	160.8	1105.4
EMP	-241.5	-225.2	-16.3	29.8
Prob (χ^2) = 0.801				
Model 14				
PRI	16523.8	-82544.8	99068.6	84570.7
PRO	0.003	0.002	0.001	0.0003
CAP	3939.5	3986.8	-47.3	1122.4
OWS	43832.4	45555.3	-1722.9	6411.4
EMP	-251.1	-245.1	-6.0	29.1
Prob (χ^2) = 0.827				
Model 15				
LIQ	-131.2	-77.9	-53.2	54.5
PRI	219541.2	145635.0	73906.2	84835.9
PRO	0.003	0.003	0.000	0.000
CAP	3778.3	33963.2	-184.9	1179.0
EMP		-227.5	-16.0	29.1
Prob (χ^2) = 0.655				

The results of the Hausman test of three models (Model 16, Model 17, Model 18) with PFT as the dependent variable are shown in Table 5.22. Prob. (χ^2) values of Model 16 (FEM 4 and REM 10), Model 17 (FEM 5 and REM 11), and Model 18 (FEM 6 and REM 12) are 0.530, 0.586 and 0.697, respectively. These prob. (χ^2) values are more than five percent level of significance, which means that the null hypothesis cannot be rejected. Thus, the REM is the most robust model.

Table 5.22
Hausman Test Estimation Results: Profitability

Model 16				
	(b) Fixed	(B) Random	(b-B) Difference	sqrt (diag(V_bV_B))
PRI	1.5	1.8	-2512150.0	3900876
PRO	-0.02	-0.01	-0.001	0.01
CAP	-270158.8	-279889.8	9730.9	46162.4
EMP	8585.3	9762.6	-1177.4	1259.7
Prob (χ^2) = 0.530				
Model 17				
PRI	1.3	1.3	-266673.9	3971451.0
PRO	-0.02	-0.02	0.00	0147603.0
CAP	-276023.7	-286382.7	10359.02	49495.7
EMP	8479.2	9362.4	-883.2	1286.3
OVS	484506.2	917186.8	-432680.6	284001.5
Prob (χ^2) = 0.586				
Model 18				
LIQ	755.3	654.0	101.3	2413.5
PRI	1.5	1.8	-2464372.0	3920421.0
CAP	-266175.0	-276984.9	10809.9	51345.2
EMP	8597.1	9781.9	-1184.9	1265.2
PRO	-0.01	-0.01	0.00	0.0
Prob (χ^2) = 0.697.				

The estimation result of the Hausman test as presented in Model 16, shows Prob. (χ^2) = 0.5299 which is more than five percent for both models, FEM 4 and REM 10. That means the null hypothesis, which says random effect model is more appropriate, cannot be rejected. Then we reject fixed effect model with this result therefore, one can conclude that random effect model is the most appropriate and robust model.

The Hausman test of Model 17 shows that Prob. (χ^2) = 0.589 is more than five percent for both models, FEM 5 and REM 11. That means the null hypothesis, which says random effect model is more appropriate, cannot be rejected. Then we reject fixed effect model with this result therefore, one can conclude that random effect model is the most appropriate and robust model.

In Model 18, Hausman test shows Prob. (χ^2) = 0.6973 is more than 0.05 percent for both models (FEM 6, REM 12). That means the null hypothesis, which says random effect model is more appropriate, cannot be rejected. Then we reject fixed effect model with this result therefore, one can conclude that random effect model is the most appropriate and robust model.

5.5.4 Diagnostic Checking Results

This study has employed several diagnostic tests such as Pesaran's (2004) cross-sectional dependence (CD) test, serial correlation check, Pair-wise Pearson correlation

matrix for multicollinearity and homoscedasticity test was also carried out to assuming homoscedastic disturbances. The results of diagnostic checking are shown in Table 5.23 and Table 5.24.

Table 5.23
Diagnostic Checking Results

FEMs	Pesaran's (CD) Test		Homoscedasticity Test	
	χ^2	Prob. (χ^2)	χ^2	Prob. (χ^2)
Model 1	0.726	0.4678	0.18	0.7238
Model 2	0.237	0.8129	0.14	0.7131
Model 3	0.429	0.6678	0.92	0.3368
Model 4	1.396	0.1628	0.22	0.6399
Model 5	1.878	0.0604	0.41	0.5210
Model 6	1.766	0.0774	0.21	0.6490

Since this study used a small sample, there was no need to check for evidence of serial correlation. Serial correlation is suitable for macro panel analysis with long time series, for instance more than 20 years. It is not a problem in micro panels with very few years. The impact of cross-sectional dependence in estimation naturally depends on a variety of factors, such as the magnitude of the correlations across cross-sections and the nature of cross-sectional dependence itself. Assuming that cross-sectional dependence is caused by the presence of common factors, which are unobserved (and as a result, the effect of these components is felt through the disturbance term) but they are uncorrelated with the included regressors, the standard FEM and REM estimators are consistent, although not efficient, and the estimated standard errors are biased.

This study has used Pesaran's (2004) cross-sectional dependence (CD) test to check the null hypothesis if that residuals across entities are not correlated. . In other words the null hypothesis that the cross-sectional independence. The results of CD test prove that the null hypothesis cannot be rejected and suggest that there is no cross-sectional dependence.

Moreover, FEM models were tested for assuming homoscedastic disturbances, because when heteroscedasticity is present, results in consistent estimates of regression coefficients but these estimates are not efficient (Baltagi, 2001). In this study, heteroscedasticity in all FEMs have been tested using Breusch-Pagan-Cook-Weisberg test. Breusch-Pagan/Cook-Weisberg tests the null hypothesis that the error variances are all equal versus the alternative that the error variances are a multiplicative function of one or more variables. It means the alternative hypothesis states that the error variances increase (or decrease) as the predicted values of Y increase, e.g. the bigger the predicted value of Y, the bigger the error variance is.

A large (χ^2) would indicate that heteroscedasticity was present. For example in Model 1, the results of Breusch-Pagan/Cook-Weisberg tests show that the Prob. (χ^2) value is small $\chi^2(1) = 0.18$ and Prob. (χ^2) = 0.7238, indicating that heteroskedasticity was probably not a problem. However results of testing Model 1 - Model 6 are shown in Table 6.23. These results indicate that heteroskedasticity was probably not a problem (or

at least that if it was a problem, it was not a multiplicative function of the predicted values), and (χ^2) value was small for each model.

Finally, this study was tested for multicollinearity to check if there was near linear perfect relationship among the explanatory variables. It means that observations or independent variables must not be influenced by other independent variables (Pallant, 2005). High multicollinearity results in the regression coefficients being unstable and the standard errors for the coefficients can get wildly inflated, making precise estimation difficult. We used correlation matrix to check for multicollinearity. This test is based on Pair-wise Pearson correlation matrix for the variables and the results of the test indicates that multicollinearity is not a problem as the correlations between all variables are relatively low. The results are shown in Table 5.24.

Table 5.24
Result of Multicollinearity Test using Pearson Correlation Matrix

Variable	PRI	PRO	CAP	WOS	LIQ	EMP	Cons
PRI	1.0000						
PRO	0.1316	1.0000					
CAP	-0.0247	-0.0808	1.0000				
WOS	-0.7922	-0.0580	0.0259	1.0000			
LIQ	-0.0609	-0.0643	0.2097	-0.0102	1.0000		
EMP	0.1350	-0.3970	-0.2541	-0.1616	0.0748	1.0000	
Cons	-0.1409	0.0848	-0.5402	-0.1534	-0.2116	-0.3727	1.0000

According to Gujarati (2003), multicollinearity could be a problem when the correlation exceeded 0.80. This test shows low inter-correlation among the explanatory variables used in the regression indicating no reason to suspect serious multicollinearity.

5.6 DISCUSSIONS OF THE RESULTS

This section analyses the result of the 12 models presented above in order to show the impact of privatization in the context of Libya economy. In all the models, six independent variables were employed which consist of PRO, OWS, EMP, CAP, PRI and LIQ, while the two dependent variable are OPE and PFT. Both the random and fixed effects were estimated. The fixed effect model has constant slopes but vary intercepts according to the cross-sectional (group) unit and constant overtime. Although there are no significant temporal effects, there are significant differences between firms in this type of model. The intercept in random effects model is random, where the random outcome is a function of a mean value plus a random error (Manez, Rochina, and Sanchis, 2004).

The Hausman test is a tool used to identify whether the fixed or random effects model should be chosen. The question is whether there is a significant correlation between the unobserved (unit of observation) specific random effects and the explanatory variables. If there is such a correlation, fixed effects model is the consistent model. If there is no such a correlation, the random effects model is the consistent and robust model (Manez; Rochina & Sanchis, 2004). The study uses Stata 11.2 software as a tool used in

estimating the study's models. The fixed effects will have been the appropriate specification if we are focusing on a specific set of firms as targeted group. Hence, the random effects model is the most robust and appropriate specification if we are drawing N individuals randomly from a large population (Baltagi, 2000).

In this study both random and fixed effects estimation are done. In addition, the Hausman test is conducted to show the most appropriate model to choose for decision making. The results of the test indicate that random is the most appropriate model for all estimation of all models.

5.6.1 Discussion of Random Effect Operating Efficiency Results

Flowing from the property rights and public choice literature, privatization is expected to increase efficiency after the organization has been privatized. After privatization, firms are expected to employ their human, financial and technological resources more efficiently because of a greater stress on profit goals and a reduction of government subsidies (Kikeris, Nellis & Shirley, 1992).

The result of analysis shows that the coefficients of PRI in Models 7, and Model 9 are positively and statistically significant at five percent level of significance. Privatization dummy oriented is used to be equal to one if the firm is fully or partially privatized oriented and zero otherwise. This result shows that there is positive relationship between PRI and OPE, implying that the privatization implementation positively improved the

OPE of the firm in Libya. Because the primary aim of the privatized firm is to increase profits at minimum costs, it is expected that privatization can fully enhance the Libyan firms' operating efficiency.

There is very strong support that the PRI development leads to an important change in efficiency. Some studies such as Frydman (1999), Laporta *et al.* (1999) and Ramamurti (1997) found that the privatization does have a positive effect on firm performance. This resulted from sales efficiency showing a positive change in mean after the period following privatization but negatively resulted in light of income efficiency and asset turnover. Result of this study also is consistent with the number of previous studies using panel data, such as Boubakri and Cosset (1998). These studies found that privatization is a positive step significantly related to the efficiency. In addition, on the base of a sample of 500 companies in more than 32 countries, Dewenter and Malatesta (2001) present empirical evidence that SOEs firms are less efficient than private firms.

The results of analysis show that coefficients of PRI in Model 8 are insignificant at five percent level of significance. These mean that PRI do not have any significant relationship with OPE. This indicates that the implementation of privatization lacks impact on operating efficiency. This result could be explained by the partial privatization effect in the Libyan economy at that period of the study. Some previous studies such as Boardman and Vining (1989) have found similar results where partial privatization may not be the best strategy for a government wishing to move away from reliance on state ownership and hoped to improve the operating efficiency of the firms.

Results also show that coefficients of PRO in all models, Model 7, Model 8 and Model 9 are positive and significant at five percent level. The positive sign implies that when PRO level increases by one unit the expected value of OPE of the firm under privatization increases by 0.003 of sales. The significant positive sign indicates that PRO has a key role in increasing the OPE level of firms undergoing privatization. The observed increase in output seems to be the reflection of the increased productivity of the privatized firms. It is not surprising to expect that privatization would improve the firms' profit earnings by increase in the unit of output. Governments hope and expect that productivity will increase after privatization because newly privatized firms now have better incentives, more flexible financing opportunities, increased competition and greater scope for entrepreneurial initiatives.

Results of analysis show that the privatization has a positive effect on operating efficiency, when the gains in productivity will be passed to firms in the form of higher performance. It can be stated that improvement of OPE is realized following privatization. This result is consistent with the evidence provided by previous studies such as Megginson, *et al.* (1994), Dewenter and Malatesta (2001) and Boubakri and Cosset (1998). They found a significant increases in efficiency and real output of the firms' experience in the 3 year post-privatization period as compared to the 3 year pre-privatized period. From their survey of 118 companies from 29 countries and 28 industries they find that the return on sales increases by 3.2 percent while labor productivity increases by 0.07 percent. They conclude that firms significantly increase

efficiency and real sales following privatization. In addition, studies of D'souza and Megginson (1999) have found similar results where productivity appears to be positively significant in impacting operational efficiency.

Meanwhile, results of analysis show that the coefficients of EMP in Models 7, Model 8, and Model 9 are negatively and statistically significant at five percent level. Before discussing the statistical results of this variable, it is worth mentioning that there is neither theoretical nor empirical consensus with regard to the impact of employment on the firm performance. On one hand, privatization might lead to an increase in the level of employment, since privatized firms probably would target growth and expand their investment spending. On the other hand, it is confirmed that most SOEs tend to be overstaffed for many social reasons; hence, extensive layoffs would be expected.

The results of analysis document significant decreases in the level of EMP at the five percent level after the privatization implemented, which justifies that the government of Libya before privatization may utilize more than what they actually need owing to political and social justifications and most of the time the government's motive for creation of industries is not profit making rather it is to cater for the masses immediate needs while private firms may try to increase production efficiency after privatization through various means other than increasing employment value. On the contrary, firms after privatization attempt at increasing OPE through other means instead of increasing the value of EMP. Thus, private firms attempt at maximizing profit at low cost and low EMP level.

The direction of the impact was found to be consistent with theoretical expectations for some previous studies such as D'Souza and Megginson (1999). Their studies found a negative correlation between EMP and OPE under the period of privatization. In addition, this result regarding employment is consistent with prior studies of Ramamurti (1997) and Laporta *et al.* (1999). These studies found that the ratios of investment to sales and investment to fixed assets significantly increase after privatization while employment significantly decreases.

The results of analysis show that the coefficients of CAP in Models 7, Model 8, and Model 9 are not statistically significant. This indicates that the CAP does not have any significant relationship with OPE.

This result may be explained by what the previous studies reported such as Earle and Estrin (1997). They argue that the efficiency may be poor due to measures of behavioral change in the short-run because many types of restructuring may impose higher short-run costs. Therefore, one can say that capital may not really have an effect on the operational efficiency in the short-run but, in the long-run it is possible for the effect of capital to be pronounced. However, the above view needs to be elaborated by further study as it is beyond the scope of this study and hence it is very hard to boldly conclude it as the main reason contributing to the performance of privatized firms. This may require long time observation beyond ten years.

In Model 8, the coefficients of OWS are positively and statistically significant at five percent level of significance. This result indicates that OWS under privatization whether fully privatized or partially privatized have a positive impact on the firms OPE. The positive sign implies that when private ownership increases by one percent the expected value of OPE of the firm under privatization increases by 45555.3 of sales. This result is in line with other previous studies such as Kocenda and Svejnar (2004) Their results found that majority of private ownership (50 percent and more) has a positive impact on firms' efficiency, through their managerial control in reducing cost while they also found that the minority private ownership (10 percent to 33 percent) has a negative impact on efficiency. Under this study, we could not ascertain whether foreign or local ownership is the one performing well or not since the ownership structure is generally categorized.

The agency theory and strategic management literature suggest that ownership influences firm performance because different owners pursue distinctive goals and possess diverse incentives. Under government ownership, bureaucrats who maximize an objective function run a firm that is a weighted average of social welfare and his/her personal agenda. Under private ownership, by contrast, the firm is run for the maximization of profit (shareholder value). A common-sense view is that government-owned firms are less efficient than their private sector counterparts operating in similar situations. In addition, the political view of privatizations argues that politicians have a tendency to distort managerial objectives to satisfy political objectives, especially excess employment, as they do not internalize the costs of distorting firms' objectives away

from profit maximization. When control rights pass from the State to private investors, the firms' objectives and managers' incentives will be redefined and, consequently, firms' performance should increase (Boycko *et al.*, 1996).

Moreover, the managerial view, based on agency theory, also helps explain privatized firms' performance due to changes in the firms' ownership. It states that SOEs have difficulties to monitor managers because there is neither an individual owner with strong incentives to monitor managers nor a public price to provide information about good or bad managers. Our result is in line with other empirical previous evidence such as Kocenda and Svejnar (2004), tends to support both the political and managerial view of privatizations as it shows that the change of control rights from the State to private investors enhances firms' performance.

This is also consistent with the results of prior studies including D'Souza and Megginson (1999) for a sample of firms belonging to developing countries find larger efficiency improvements for privatizations in which the State no longer maintains control. Similarly, Wei *et al.* (2003) for a sample of Chinese privatizations report post-privatization increases in efficiency for privatized firms in which the State retains less than 50 percent of the capital.

On a final note, the result shows that the coefficients of LIQ in Model 9 are statistically insignificant. This indicates that LIQ does not have any effect on OPE. This result contrasts with the expected outcome and also it is not supported by Kikeri and Nellis,

(2004). Their findings on assessment of financial performance before and after privatization concluded that privatization improves liquidity ratio significantly.

5.6.2 Discussion of Random Effect profitability Results

SOEs are often chronically unprofitable, this is partly because they are charged with objectives (such as maximizing employment) other than the objective of profit maximization. Privatization therefore, is designed to substitute the single objective of profit maximization with the many other objectives. It is also expected to enhance the development of capital market and focus employees on raising revenues and lowering costs. Also, government withdraws its guarantee to the enterprises debts after privatization, which exposes them to the real threat of bankruptcy, which leads to their liquidation. This inevitably makes enterprises to promote greater emphasis on profit maximization (Abdullahi *et al.*, 2012).

In Model 10, Model 11 and Model 12, the coefficients of PRI are positively and statistically significant at five percent level of significance. These results indicate that increase in PFT is caused by increase in implementation of PRI programme. In other words, the main motivation underlying privatization was associated with the higher profitability of private firms, and this implies that the privatization implementation leads to improving its profitability level. The results lend strong support for the positive impact of privatization on the profitability. Privatization therefore, is designed to substitute the single objective of profit maximization with the many other objectives

such as enhancing efficiency. Analysis result is consistent with findings that are reported by Narjess *et al.* (2004). They examine the post-privatization performance of newly privatized firms in Asia and document strong relationship between privatization and profitability. The authors show that privatization leads to increase in profitability. Another study by Megginson *et al.* (1994) found a strong significance for the return on sales (at the one percent level) and return on assets (at the 10 percent level) ratios. Such findings is consistent also with what D'Souza and Megginson (1999) have documented and suggested; they documented that privatization has led to significant increases in firms' profitability.

This result also documented very strong performance improvements following either full or partial privatization in Libya. This result is supported by previous studies such as Boubakri and Cosset (1998), Megginson *et al.* (1994); these studies focused on the SOEs that were fully or partially privatized through public share offerings and these firms, particularly those privatized early in the process of privatization, may be among the healthiest SOEs showing documented increase in the profitability after privatization. Also, it is not clear how much of the shares remained state-owned within partially privatized SOEs. If the firms with improved performance included firms that remained majority state-owned, then the conclusion that privatization improves performance becomes ambiguous. A similar previous result such as La Porta and Lopez-de-Silanes (1999) studied former Mexican SOEs and found these rapidly closed a large performance gap with industry matched private firms that had existed prior to

divestment. These firms go from being highly unprofitable before privatization to being very profitable thereafter.

This result is also in the same line with the results of Dewenter and Malatesta's (2001). They use regression and time series methods to compare the pre-privatization and post-privatization performance of 63 large high-information companies divested during the period 1981 to 1993. Both authors examine performance changes over both short-time frame around privatization and longer-time. They reported significant post-privatization increases in profitability in the period immediately after privatization. However they also find that operating profits increase prior to divestiture and may actually decrease somewhat afterward.

The results of analysis also show that the coefficients of EMP in Model 10, Model 11, and Model 12 are positively and statistically significant at the level of five percent. It implies that when the employment level increases by one worker the expected value of profitability will increase invariably, holding all other variables constant.

Interestingly, this result is in contrast with the expected result from the theoretical and empirical literatures concerning the impact of employment on the firm performance, because most of the previous studies show the decrease in the level of employment concerned to the increase of the level of profitability.

This result is true for the results reported by Dewenter and Malatesta (2001) and Frydman (1999). They found an increase in employment level.

Results of analysis show that the coefficients of CAP in Model 10, Model 11, and Model 12 are negatively and statistically significant at five percent level. This result implies that increases in the level of CAP minimizes ones level of profit margins. The findings show that CAP exhibited negative associations with PFT. This usually happens in the short run and there is possibility that in the long-run when adequate CAP is employed then the PFT margin increases. That is because the general expectation is that, greater emphasis on efficiency and profitability will make the firms increase their capital investment spending.

Therefore, firms should increase capital expenditure after divestiture because they are no longer tied to government's bureaucratic procedures and that they have greater access to private debt and capital market. Moreover, if deregulation and market opening accompany, former SOEs will face very large investment spending needs in order to become more competitive with other firms. Previous studies including Boubakri and Cosset (1998) and D'Souza and Megginson (1999) support this result. Their studies show that the greater emphasis on profitability will make the firm's increase their capital investment spending.

The results show that the coefficients of PRO in Model 10, Model 11 and Model 12 are insignificant and do not affect PFT. This implies that PRO has not really impacted on

performance to the extent of influencing profitability positively. The result tends to contrast the expectation of an increase in PFT. However, this result seems to be consistent with Ehrlich *et al.* (1994). They use a sample of 23 comparable international airlines of different ownership categories over the period 1973-83 and previous studies by Boycko, Shleifer and Vishny (1993), they found insignificant between productivity and profitability.

Similarly, the coefficients of OWS in Model 11 are also not statistically significant at any level. This result implies that OWS does not have any effect on PFT. Indicating that there is no significant difference in firm performance between ownership and profitability. This result in the same line with the previous studies such as Gupta (2005), Wei *et al.* (2003) and Shleifer and Vishny (1996). These studies also find that private ownership has a no effect on performance of firms in China and India.

Finally, the results of analysis show the coefficients of LIQ in Model 12 remains insignificant influencing PFT. This result shows that LIQ does not impact performance to the level that PFT is positively influenced. However, both fixed and random effects indicate that liquidity does not have any effect on profitability. It is expected to see liquidity statistically significant in influencing the profitability level, but contrary to our expectations, the results show that the coefficient of liquidity is positive and insignificant. This result in constraint with some previous studies such as Sarboland (2012) and Mustafa (2011). Their overall results indicated that the liquidity was increased meeting expectations of increased cash flows.

5.7 CONCLUSION

This chapter has descriptively and empirically examined the impact of privatization programme on the Libyan SOEs performance. Several conclusions can be drawn from this study. The results obtained from the field survey show that managers and workers were in favor of the privatization programme. Based on the views of the managers concerning the barriers and constraints faced by privatized SOEs, privatization in Libya has faced minor difficulties. Meanwhile, based on panel analysis on the impact of the privatization on the privatized SOEs performance, the analysis shows that privatization has a positive and significant impact on Libyan privatized firms both on operational efficiency and profitability level; ownership structure significantly improved privatized firms' efficiency and with the profit level it does not contribute in a negative or positive way; liquidity has a negative impact but not statistically significant on privatized firm's operating efficiency and profit level; and employment is statistically significant both on operational efficiency and profitability at five percent level. It can therefore be concluded that privatization has played important roles in improving operational efficiency and profitability as a key measurement of the firm's performance.

CHAPTER SIX

SUMMARY, RECOMMENDATION AND CONCLUSION

6.0 INTRODUCTION

This chapter is organized as follows. Section 6.1 presents summary of research findings of this study. It is followed by policy implications and recommendations of this study in Section 6.2. Limitations of the study which is presents in Section 6.3. Furthermore, Section 6.4 discusses the suggestions for future research and. Finally, the conclusion of this study is presented in Section 6.5.

6.1 SUMMARY OF FINDINGS

It is not sufficient to view the transfer of the ownership of a firm from the public to the private sector as an end in itself (Banerjee & Munger, 2004). As experiences have revealed, privatization is not always a success, and it does not guarantee performance improvements (Parker & Martin, 1995). It can also have adverse effects at least in the short term (Gupta, *et al.* 1999). Therefore, this study has been discussed many vital issues related to the Libyan economy in general and the privatization programme in particular.

The study has evaluated the SOEs performance using both primary and secondary data analyses. It has examined the performance of the SOEs after the privatization programme and compared it with the same companies before the privatization. The econometric analyses such as mean comparison and traditional panel models have been employed in this study. Findings of the study are generally backed by theories of privatization which indicates that it results in improving performance and working conditions in privatized firms.

The specific objectives set out in the study are firstly: to explore effectiveness of privatization program in the industrial companies in Libya by providing a descriptive analysis of the privatization impact on the firms' performance in Libya, comparing it with results of privatization developed in the literature. This is supported with the attitudes of managers and workers about the main barriers to the privatization in the Libyan economy, by undertaking a field study of the companies of the Libyan industry. The managerial view based on agency theory, also helps explain how the privatization really works on the firm, due to changes in the firms' ownership structures. It states that SOEs have difficulties to monitor managers because there is neither an individual owner with strong incentives to monitor managers nor a public price to provide information about good or bad managers (Laffont & Tirole, 1993).

However, this study specifically tackles both the administrative and economic aspects of privatization. It also focused on one of the key factors in successful implementation of privatization which concerns management and workers attitude towards privatization.

With regards to management, their attitude prior to privatization was examined and the results revealed that most managers advocated privatization along with their workers.

The second objective of this study was to evaluate of the privatization effects on the firm performance in the industrial companies. This study reveals that empirical observations focused on the effect of privatization in Libya from 2002-2010 highlighted significant lessons to be learned;

- i. First, significant differences were revealed in the privatized firms' performance between the pre- and post-privatization periods. These differences were with regards to improvements in operating efficiency, capital investment and profitability and the increase in aggregate employment among the privatized firms. In other words, from 2002-2010, privatization in Libya positively affected all the above factors and achieved some of the established goals.
- ii. Second, employment remains statistically significant both on operational efficiency and at profitability level. Looking at different aspects of the relationship between firm performance and employment, the theoretical view pointed as a priority is given to minimize the cost in the initial step, in the short run , the level of employments will slump. However, in the long-run as the cost efficiency results in lower production costs, the number of employment will increase and shows a total effect in the firm performance. However, in growing sectors, the firm could absorb surplus labor through new capital investment and more productive use of existing assets (Kikeri *et al.*, 1992). It can therefore be

concluded that employment has played important roles in effecting the firm's performance using operational efficiency and profitability as a key measurement.

- iii. Finally, this study has empirically revealed that privatization of public firms can result in positive returns in terms of real turnover and profits in the short to medium term but may have some negative effects concomitantly upon employment over the same time period. Hence, it is recommended that precautions mitigating privatization's adverse employment effects should be established.

For addressing the third objective that explained and identify the important obstacles that hinder the privatization programme in Libya, and identifying problems of implementation, several perspectives were used. From a management perspective, workers perspective, and an owner perspective, the privatization can be considered a limited success. Although, the managers had more decision-making authority, and workers received salary increases, the managers were not prepared to deal with the new realities, many employees lost their jobs, many employees had a much less secure future than before privatization because of the introduction of annual contracts. Lastly, as a result of that, it can be concluded that the privatization in Libya has faced small difficulties according to the views of the managers and workers.

6.2 POLICY IMPLICATIONS AND RECOMMENDATIONS

Privatization actually contributes a significant impact on economic performance in general and economic entities in particular. The evidences of this study have proved that the Libyan privatized firms' operating efficiency and profitability have changed after privatization programmes. Therefore, the government should take appropriate actions in promoting privatization programme. For instance, the government can conduct special platforms such as conferences that can discuss the effect of privatization in the entire Libyan economy.

Morover, Libyan government should highlight the advantages and disadvantages of privatization programmes to economic agents on the basis of proper scientific analysis. This could lead to the development of a suitable environment for economic activities, and various social groups or economic agents in Libya can play their role to their full potential.

In order to achieve the objectives of privatization programmes, it is should ensure that managers and workers transform their ways or habits to perform their tasks. Based on the findings of this study, majority of the former managers still perform their duties in a relatively same way as before privatization. In addition, after privatization, some workers still have the same mind-set which reflects their lack of understanding of the process of privatization. In fact, the privatized companies still operate their entity as part of the public sector especially in the first five years after they were privatized.

Therefore, the cooperation between the Libyan government, organization, managers and workers needs to be established and tightened.

For the realization of a successful privatization program, there are many conditions that have to be considered. First and foremost, the privatized firms have to be fully equipped with effective managerial and technical capabilities. But on the basis of the empirical findings of this study, the following recommendations are provided to the Libyan government to consider when introducing a strategic shift towards actual privatization in the country;

- i. In spite of all shortcomings, privatization has positive effect upon performance of Libyan enterprises and should be proceeded as the preferred course of action.
- ii. The process of privatization should not be considered as an objective in itself but instead as a means to achieve other more important objectives. Stated differently, privatization should be considered as a means to an end instead of the end itself. As such, its target should not be limited to material aspects but the state should also focus on the significance of privatization such as encourages production efficiency.
- iii. The privatization process was implemented with the objective to improve their performance. To ensure this objective, the state should do not keep more than 50 percent in state ownership. The later should help to appear new shareholders having enough stakes to monitor managers properly.
- iv. To have improvements in effectiveness of state-owned enterprises, the state could cooperate between the Libyan government, organization, managers and

workers and make a comprehensive plan to revise an unsuccessful SOE.

- v. Extensive field surveys are called for to determine the main barriers to privatization in the Libyan economy and their effect on various activities in terms of privatization outcome in the other public sectors.
- vi. prior successful experiences of privatization in other countries have to be taken as precedents; for instance, the Egyptian and Malaysian methods to enterprise reform and ownership change may be a suitable model to be employed.

6.3 LIMITATION OF THE STUDY

The main limitation of this study is difficulty of getting sufficient data. Data was very difficult to obtain as there were several firms in the industrial sector before the period of privatization. A total of 32 firms experienced actual privatization from the industrial sector with 19 excluded from the study sample owing to the challenges in gathering data from them particularly after they were privatized. Thus, the actual study sample included only 13 companies. This methodological limitations mirror those by Megginson and Netter (2001) who claim that data availability limitation is the topmost important issue because privatized firms do not readily give out their financial data. This study has thus taken recourse from this limitation by relying on the questionnaire survey along with financial data to obtain the needed information. In addition, there are only a few researchers who employed a panel data when studying the potential determinants of the post-privatization performance of the firms in the context of developing countries. This is especially true in Libya where performance of firms is enhanced through internal

efforts even when a negative environment exists. Because of the lack of empirical studies in the context of the North African continent, this study attempted to determine the impact of privatization on firm's performance in Libya.

6.4 AREAS FOR FURTHER RESEARCH

Future studies could include a larger sample size in order to increase the potential for result generalizability. As the result of this privatization phase in Libya, has been achieved to a greater extent, the desired results for the companies have been studied, it is reasonable to determine whether or not deviations from the findings occur in other sectors. In addition, the research should be conducted to review the nature of such variables as corporate image, the service quality and the employee attitudes of the privatized companies before and after privatization programme.

Moreover, to this date, there is no study dedicated to the post- privatization performance of the enterprises in Libya and there are not many studies focusing on privatized enterprises performance. With this limitation as a background, this study intended to fill the research gap by determining firm efficiency, labor market and fiscal impact of the privatization program in Libya. As such, this research is believed to highlight future trends of enterprises in Libya. More importantly, other extensions to this study may employ this study as a basis for detailed and in-depth studies.

6.5 CONCLUSIONS

First phase of privatization noted the state's attempt to interfere by privatizing majority of the companies and transferring their ownership to the existing workers and management. Although it appears from this study that privatization has succeeded in the context of Libya, if the Libyan government is interested in further enhancing SOEs performance through privatization, it can readily do so. But there are some concerns that have to be addressed. Therefore this chapter summarizes the main findings of the study, and discusses its policy implications and makes recommendations, and suggests areas for further research.

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