

The Impact of Privatisation on the Performance of Firms in Egypt

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Abstract

The objective of this paper is to evaluate the Egyptian privatisation programme in terms of firms' performance. By relying on 15 years of data, which cover the period 1991/1992 till 2004/2005; this paper empirically investigates whether the operating efficiency of privatised firms improves following privatisation through comparing pre- and post-privatisation performance in terms of operating efficiency indicators, and level of employment. To reach the research objective, several statistical techniques, such as parametric t-test, the non-parametric and Wilcoxon signed-rank test are performed. The results from this analysis indicate clearly that there are significant increases in operating efficiency indicators as well as significant declines in the level of employment in the firms under investigation.

Keywords: Privatisation, Performance Measures

1. Introduction

In 1991, the Egyptian government embarked upon a comprehensive economic reform and structural adjustment programme, the core of which was liberalisation and privatisation of Egypt's economy. One crucial issue of privatization is its effect on the level of employment after firms move from public sector to the private sector. State-owned enterprises (SOEs), before divestiture, tend to be overstaffed for many social reasons; hence, extensive layoffs would be expected. Between 1960 and 1990, SOEs handled 75% of Egypt's economic activity under the direction of various ministries (Adams, 2000). As results of poor management, inefficient bureaucracy, huge number of employees (more than 1.3 million public enterprise employees) with low rate of productivity per-employee and weak capitalisation of SOEs led to negative effects on its efficiency and financial viability (Mohi-Eldin, 1996).

The remainder of the paper develops as follows. Section two summarizes the history of privatisation in Egypt. Section three covers literature review and hypotheses development. Section four covers sample and methodology. Section five covers analysis and results. Section six provides conclusion and recommendation.

2. The History of Privatisation in Egypt

Before 1952, the private sector used to make about 76% of the total investment in the economy (Mckinney, 1996). After the revolution of 1952, the Egyptian government began to play a more active role in the economy through projects directly affecting the development of the national economy. In 1956, the government through application of Law 258 began nationalisation of the private companies. The main idea of public projects was introduced through Law 20 of 1957, which introduced the principles to establish SOEs (El Rashidy, 1996). One of the projects' missions was to monopolise the establishment of public economic projects, and to prepare plans for using the state's funds for economic activities. The public sector very quickly established its dominance in the economy and for the next three decades was making between 80-90% of the investment in the Egyptian economy (Bekheit, 2008). Although one of the main objectives of establish SOEs were to create as many employment opportunities as possible. However, poor management and weak capitalization of SOEs lead to negative effects on their efficiency and financial viability.

In an effort to improve its economy, Egypt launched a privatisation programme in 1991 as a part of its economic reform programme. One of the chief goals of privatisation in Egypt was to improve efficiency through asset utilisation and labour productivity (Mohi-Eldin, 1996). Another objective of the Egyptian privatisation programme was to achieve wider share ownership, by selling large amounts of state enterprises to private owners (Hassan, 2001).

The Egyptian government earmarked 314 SOEs as potential candidates for privatisation, offering attractive investment and profit opportunities. In 1991 Egypt's 314 SOEs were grouped under 27 holding companies (reduced to 14 by 2001) responsible for all the affiliates in various sectors. The number and value of the Egyptian privatised firms, classified by years and method of sale, is explained in Table 1.

The privatised firms were diversified over a number of sectors, including agriculture, real estate and construction, food and beverages, milling, retail, cement, chemicals and fertilizers, engineering, pharmaceuticals, and tourism.

Table 1. Number and Value of the Egyptian Privatised Firms

Year	Fully Privatisation				Partially Privatisation			Yearly Total	
	Anchor Investor	IPO	ESA	Liquidation	IPO	Asset Sales	Leases	Number	Value ¹
1990	—	—	—	1	—	—	—	1	n.a.
1991	—	—	—	3	—	—	—	3	n.a.
1992	—	—	—	1	—	—	—	1	n.a.
1993	—	—	—	6	—	—	—	6	n.a.
1994	3	—	7	2	1	—	—	13	664
1995	0	1	3	2	6	—	—	12	1216
1996	3	14	—	1	6	1	—	25	2792
1997	3	14	3	3	2	1	1	27	3148
1998	2	8	12	6	1	3	—	32	2358
1999	9	—	5	7	—	4	6	31	2785
2000	5	1	—	3	—	6	10	25	2476
2001	4	—	1	2	—	3	1	11	1075
2002	—	—	2	1	—	—	—	6	51
2003	—	—	—	—	—	6	3	9	114
2004	3	—	—	11	—	—	—	14	928
2005	2	—	—	5	1	—	—	8	205
2006	3	—	—	4	—	—	—	7	185
Total	37	38	33	53	17	27	21	226	17997
(%)	16.3%	16.8%	14.6%	23.5%	7.5%	12%	9.3%	100%	

Source: - Egyptian Ministry of Public Enterprise Sector, (2007), and Bekheit, (2008).

3. Literature Review and Hypotheses Development

Previous studies all over the world have investigated the performance change of firms at different countries and different industries that privatised during the last 25 years. They compared 3-year average post-privatisation financial and operating performance ratios to the 3-year pre-privatisation ratios. They tested the significance of median changes in post-versus pre-privatisation data. They documented economically and statistically significant post-privatisation increases in operating efficiency as well as significant decreases in level of employees (Megginson, Nash, and Van Randenborgh, 1994; Boubakri and Cosset, 1998; D'Souza and Megginson, 1999 Boubakri and Cosset, 2003 Saal and Parker, 2003).

In 1995, Martin and Parker investigated the impact of privatisation on the performance of firms by examining efficiency before and after privatisation. They used a sample of eleven British firms privatised during 1981-88 and used annual growth in value added per employee-hour to measure their efficiency. The result was less than half the firms performed better after being privatised. They found evidence of a "shake-out" effect upon the privatisation announcement, where several firms improve performance prior to being privatised but not after being privatised. Another study by Dewenter and Malatesta, 2001 investigated the impact of privatisation on the firm's performance. They examined the performance change of 63 large, high-information firms, privatised in developed countries during 1981-94. They compared pre- versus post-privatisation performance over both short-term {(-3 to -1) versus (+1 to +3)} years; and long-term {(-10 to -1) versus (+1 to +5)} years. The result was a significant increase in operating efficiency and a significant decrease in labour force over both short and long-term comparison horizons. Operating profits increased only prior to privatisation. Also, they found a significantly positive long-term (1-5 years) abnormal stock return, mostly concentrated in Hungary, Poland, and the United Kingdom. The study concluded that privatisation has a significant future impact on firm's performance, and private firms outperform SOEs.

In 2002, another study by Cabanda and Ariff investigated the efficiency growth after privatisation for four Asia Pacific countries. They analysed the financial and operating performance for telecommunications privatised firms in Japan, Philippines, Malaysia, and Australia, which were fully or partially privatised over an extended time period (more than twelve years) by using the Megginson, Nash, and Van Randenborgh, 1994 methodology testing and used Data Envelopment Analysis (DEA) to measure performance changes. They concluded that the privatised firms achieve productivity gains of around 3% to 50%; and for three of the four countries they saw a significant increase in total factor productivity (Japan, Philippines, and Australia). Also, they found that profitability increased in two of the four countries (Malaysia, and Australia). Also, Sun, Jia, and

¹ Millions of Egyptian pounds (rate 1 L.E.= 0.175 US\$ as of December 2006).

Tong 2002, examined the performance change for 24 Malaysian firms privatised via IPOs by the end of 1997. The study compared financial and operating performance ratios pre- versus post-privatisation. They used the Megginson, Nash, and Van Randenborgh, 1994 methodology to estimate the magnitudes of privatisation related performance, then used panel data regression to test the sources of performance changes. They found privatised firms increased their absolute level of profits three fold, more than doubled real sales, and at the same time, reduced employment.

In 2003 Boardman, Laurin, and Vining examined the performance change for nine Canadian firms privatised during 1988-95. They compared 3-year average post-privatisation financial and operating performance ratios with the 5-year pre-privatisation values, and computed long-run (up to 5 years) stock returns for privatised firms. They employed the Megginson, Nash, and Van Randenborgh, 1994 methodology to estimate the magnitude of privatisation related performance. They documented that profitability and operating efficiency increase more than double after privatisation, while leverage and employment declined significantly. Also, according to Sun and Tong 2003, who analysed the performance of 634 Chinese SOEs that are listed on Stock Exchange through the period of 1994-98. The concluded that after privatisation, there is a significant improvement in both return on sales, real sales, employee productivity, and the level of real profit.

Most empirical studies that compare pre- and post-privatisation performance indicate consistent findings regarding the impact of privatisation on firm profitability, output, efficiency, leverage, and employment level. They show highly significant performance improvements according to both the Wilcoxon (median) and binomial (proportion) statistical tests. The majority of discussed studies have used Megginson, Nash, and Van Randenborgh, 1994 methodology. The use of this methodology achieves two advantages. It allows one to examine and directly compare large samples of economically significant firms from different industries, privatised in different counties, and over different time periods. Since each firm's performance is compared with its own result few years earlier using simple, inflation-adjusted sales and income data, this methodology allows one to aggregate efficiently multinational and multi-industry results.

One of the main reasons to adopt the privatisation programme in Egypt was terrible financial performance of SOEs by beginning 1990s due to many reasons such as: poor management and weak capitalisation of SOEs led to a negative effect on their efficiency and financial viability. The competitive environment should become a trigger for improved firms' performance, which would suggest the following hypothesis:

Privatisation leads to improvement in the employee productivity of privatised firms following privatisation.

To test for this hypothesis, two sub-hypotheses are to be examined as follows:

1- Privatisation improves the operating efficiency of privatised firms.

1/1- There is a significant increase in sales efficiency following privatisation.

1/2- There is a significant increase in income efficiency following privatisation.

2- Privatisation leads to decrease in the employment of privatised firms.

2/1 - There is a significant decrease in the number of the employees following privatisation.

4. Sample and Methodology.

4.1 Sample

The data of privatised firms are collected from two sources, which are: (1) the Public Sector Information Centre for the privatised firms in the pre-privatisation data; and (2) the Egyptian Capital Market Authority for the privatised firms in the post-privatisation period. In addition to that, key accounting data as well as annual reports are obtained from the following sources: Egyptian Stock Exchange, Kompass Egypt Financial year book (financial statements from 1994 to 2006), and the financial reports from each privatised firm itself. Also, there are the annual reports and corporate announcements published in official newspapers. The data set for privatised firms was obtained from the Egyptian firms that had been privatised and have at least 2 years of both before and after privatisation data to allow time for the programme to stabilise. Thus, the study period will be covered from 1994 to 2004.

According to the Egyptian privatised firms, which are covered in Table 1, the total number of privatised firms reached 226 at December 2006. However, excluding some types of privatisation, namely, leases (21 firms); asset sales (27 firms), and liquidations (53 firms), this left a population of only 125 firms. Excluding firms with less than 2 years of post-privatisation data (approximately one firm) further reduced the sample to 124 firms. Also, excluding firms that were privatised out of an IPO (37 firms were sold to Anchor Investors and 33 firms were sold to the ESA). The final sample thus consists of 54 privatised firms, of which 38 fully privatisation and 16 partially privatisation.

Table 2 shows the distribution of these firms according to the type of industry, in which each firm operates and the names of these firms, respectively. The sample of privatised firms is well diversified because it displays a wide dispersion through different kinds of industries.

Table 2. Classification of Privatised Firms (54 Firms) by Industry

Industry	No. of firms
Pharmaceutical sector.....	5
Mining sector	4
Construction sector.....	8
Food sector	11
Housing and tourism sector.....	5
Metallurgical industries sector	2
Cotton and international trade sector	2
Weaving and trade sector	1
Chemical industries sector	7
Industrial engineering sector	3
Maritime and inland transport sector.....	2
Electricity construction and distribution sector.....	4
Total.....	54

Source: - Bekheit, (2008).

4.2 Methodology

This study examines the same variables used by Megginson, Nash, and van Randenborgh 1994; Boubakri and Cosset 1998; and D'Souza and Megginson 1999; and Chen, Michael, and Oliver 2005. Operating efficiency is determined by two variables. First, sales efficiency (SALEFF) which refers to sales per employee that is computed using the normalisation method after adjusting sales for inflation; Second, income efficiency (INEFF), which refers to real earnings before interest and tax (EBIT), per employee that is computed using the nominal EBIT deflated by the consumer price index, then normalising them to unity in the year of privatisation (year 0). Table 3 presents details on each of the three measures used to analyse the performance of the privatised firms in the pre- and post-privatisation periods.

Table 3. Financial and Operating Variables

Characteristics	Indicator	Predicted Relationships**
	<ul style="list-style-type: none"> <i>Operating efficiency</i> 	
	Sales efficiency (SALEFF) = Sales divided by number of employees, normalised to unity in the year of privatisation (year 0).	SALEFFA > SALEFFB
	Net income efficiency (INEFF) = Net income divided by number of employees, normalised to unity in the year of privatisation (year 0).	INEFFA > INEFFB
	<ul style="list-style-type: none"> <i>Employment</i> 	
	Total employment (EMPL) = Total number of employees.	EMPLA < EMPLB

** A= after privatisation, B= before privatisation

The researchers calculated the above specified measures for every firm for two years before and two years after privatisation. The study then calculated means and medians of each measure for the pre-privatisation (years -2 to -1) and post-privatisation (years +1 to +2) period. The year of privatisation (year 0) is excluded from the analysis, because it included both public and private ownership phases of the firm. Therefore, the minimum time-interval data for each firm is 5 years (from at least year -2 to year +2).

For calculations of sales efficiency, and net income efficiency, sales and net income, data are deflated using the consumer price index (CPI) values in Egypt. For these variables, the researchers computed an index normalised to unity for year 0 (the year of privatisation). Other years (year -2, year -1, year +1, and year +2) are expressed relative to unity. For calculations of employment level, the researchers used nominal data for the calculation of number of employees.

Before testing for the significant changes in performance, the study employed several tests; which are: standardised skewness, the standardised kurtosis Shapiro-Wilks, and chi-square goodness-of-fit to determine whether the accounting performance measures of privatised and private firms can be adequately modelled by a normal distribution.

5. Analysis

5.1 Descriptive Statistics

Table 4 summarises the descriptive statistics for the operating efficiency indicators of partially privatised firms, fully privatised firms and the whole privatised firms in the pre- and post-privatisation period, respectively; including the mean, the median, the minimum, the maximum, the standard deviation. Furthermore, the table presents the results of two measures, which are used to determine whether the performance could be adequately modelled by a normal distribution, which are: standardised skewness and the standardised kurtosis.

According to the descriptive statistics of performance indicators for privatised firms mentioned in Table 4, the study concludes two results: (i) all studied variables change in value after privatisation. These changes will be tested for statistical significance in the next section; and (ii) most studied variables have a standardised skewness and a standardised kurtosis outside the range of ± 2 . It means that some data on these variables follow a normal distribution, but others do not.

After calculating the pre- and post-privatisation performance measures for the whole privatised firms' sample, the study tests the null hypothesis that "the cross-sectional average performance changes are equal to zero for a sample of n privatised firms". Under the null hypothesis, these test statistics follow a parametric t-distribution in cases where the sample is normally distributed. Since the sample included some performance measures that are not normally distributed, the study also employs the non-parametric Wilcoxon signed-rank test to test the null hypothesis that "the median performance changes are equal to zero". The results from these tests will be provided in the next sections.

Table 4 Descriptive Statistics for the Performance Measures of Privatised Firms Pre- and Post-Privatisation

The table shows some basic descriptive statistics for the performance measures of the privatised firms. It includes measures of central tendency, variability, and shape. The table provides the mean, the median, the minimum, the maximum, and the standard deviation values of each performance measure for the pre- and post-privatisation period. The researcher also lists the standardized skewness and the standardized kurtosis, which can be used to determine whether these performance measures are normally distributed.

	(1) Proxies	(2)	(3) # of Firms	(4) Means		(5) Median		(6) Minimum		(7) Maximum		(8) Standard deviation		(9) Standard kurtosis		(10) Standard Skewness	
				Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post		
Operating Efficiency Sales efficiency (SALEFF).	Partial	16	1.15	0.91	1.13	0.93	0.55	0.43	1.59	1.36	0.26	0.24	0.33	0.42	-0.59	-0.77	
	Full	38	1.00	1.11	0.99	0.96	0.34	0.45	1.85	3.78	0.31	0.69	1.34	12.80	1.12	7.66	
	All	54	1.05	1.05	1.03	0.94	0.34	0.43	1.85	3.78	0.30	0.60	0.75	21.32	0.53	10.40	
Income efficiency before interest and taxes (INEFF).	Partial	16	0.77	1.03	0.73	0.79	0.07	0.28	2.50	3.65	0.57	0.73	4.21	8.89	2.90	4.84	
	Full	38	0.78	1.01	0.56	0.91	0.14	14.63	5.77	16.19	0.93	3.61	29.44	21.05	11.19	-0.43	
	All	54	0.78	1.03	0.59	0.93	0.14	14.63	5.77	16.19	0.83	3.01	36.81	36.54	13.12	-0.65	
Employee Total employment (EMPL).	Partial	16	4652	4156	4052	3313	1157	1163	13621	13133	3170	3182	3.00	3.39	2.91	3.38	
	Full	38	2743	2161	1945	1447	224	155	7481	6644	1982	1792	0	0	2	3	
	All	54	3309	2701	2839	1803	224	155	13621	13133	2522	2447	7	9	5	6	

Table 5 Comparison of Pre- and Post-Privatisation Performance of all Privatised Firms

The study employs three techniques to test for significant in performance of privatised firms whether fully or partially privatised. This table presents summary results of the parametric t-test and the non-parametric Wilcoxon signed-rank test for the significant changes in the mean and median values of the selected performance measures of privatised firms in the pre- and post-privatisation periods. In addition, the proportion test is employed to determine whether the proportion of firms experiencing changes in a given direction is greater than what would be expected by chance. For each performance measure, the mean and the median values for at least the two-year period pre-and post-privatisation are given. The study provides the mean (median) change for each variable after versus before privatisation, and *t* and *z* statistics with their significant level. The number of useable firms is provided along with the number of firms that experienced an increase or decrease after privatisation. This table also provides the percentage of firms that changed as predicted, with *Z* statistics and their *p*-values. For the parametric (non-parametric) test, the researchers lists the results under the null hypothesis that the mean (median) performance change = 0 versus the alternative hypothesis that the mean (median) performance change $\neq 0$.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Proxies	No. of firms Increased (Decreased)	Pre-Privatisation Mean (Median)	Post-Privatisation Mean (Median)	Change in Mean (Median)	t-Statistic for difference in Mean (P-value)	Wilcoxon statistic for difference in Medians (P-value)	Z-Statistic for significance of proportion of proportion (P-value)	Percentage of firms with changes as predicted (+/-)
1	Operating Efficiency								
2	Sales efficiency (SALEFF).	21	1.05	1.05	0.0038	0.0456	1.496	1.082	39% (+)
3		(33)	(1.03)	(0.94)	(-0.0821)	(0.9637)	(0.1344)	(0.2347)	
4		54							
5									
6	Income efficiency before interest and taxes (INEFF).	37	0.78	1.03	0.257	0.239	3.129	2.996	71% (+)
7		(15)	(0.59)	(0.93)	(0.239)	(0.477)	(0.0017)*	(0.0027)*	
8		52							
9	Employee								
10	Total employment (EMPL).	9	3309	2701	-607.722	-5.07058	5.03506	5.0886	84% (-)
11		(45)	(2839)	(1803)	(-368.5)	(0.0000)*	(0.0000)*	(0.0000)*	
12		54							
13									
14	LOG EMPL.	9	7.79	7.51	-0.2820	-6.0915	5.13098	5.2911	84% (-)
15		(45)	(7.95)	(7.49)	(-0.1900)	(0.0000)*	(0.0000)*	(0.0000)*	
16		54							

*, **, and *** refer to 1%, 5%, and 10% significance levels, respectively.

Table 6 Comparison of Pre-and Post-Privatisation Performance of Fully Privatised Firms

The study employs three techniques to test for significant in performance fully privatised firms. This table presents summary results of the parametric t-test and the non-parametric Wilcoxon signed-rank test for the significant changes in the mean and median values of the selected performance measures of privatised firms in the pre- and post-privatisation periods. In addition, the proportion test is employed to determine whether the proportion of firms experiencing changes in a given direction is greater than what would be expected by chance. For each performance measure, the mean and the median values for at least the two-year period pre-and post-privatisation are given. The study provides the mean (median) change for each variable after versus before privatisation, and *t* and *z* statistics with their significant level. The number of useable firms is provided along with the number of firms that experienced an increase or decrease after privatisation. This table also provides the percentage of firms that changed as predicted, with *Z* statistics and their p-values. For the parametric (non-parametric) test, the researchers lists the results under the null hypothesis that the mean (median) performance change = 0 versus the alternative hypothesis that the mean (median) performance change \neq 0.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Proxies	No. of firms Increased (Decreased)	Pre - Privatisation Mean (Median)	Post-Privatisation Mean (Median)	Change in Mean (Median)	t-Statistic for difference in Mean (P-value)	Wilcoxon statistic for difference in Medians (P-value)	Z-Statistic for significance of proportion (P-value)	Percentage of firms with changes as predicted (+/-)	
1 Operating Efficiency									
2 Sales efficiency (SALEFF)	18	1.004	1.108	0.104	0.952	0.162	0.0870	47% (+)	
3	(20)	(0.985)	(0.957)	(-0.083)	(0.346)	(0.8711)	(0.937)		
4	38								
5									
6 Income efficiency before interest and taxes (INEFF)	25	0.776	1.01	0.223	0.443	2.4334	2.262	69% (+)	
7	(11)	(0.560)	(0.913)	(0.235)	(0.660)	(0.01)*	(0.0023)*		
8	35								
9 Employee									
10 Total employment (EMPL)	4	2743	2161	-581	-4.531	4.704	4.583		
11	(34)	(1945.0)	(1446)	(-357)	(0.0000)*	(0.0000)*	(0.0000)*	89% (-)	
12	38								
13									
14 LOG EMPL	4	7.605	7.273	-0.331	-5.907	4.833	4.691		
15	(34)	(7.57)	(7.24)	(-0.28)	(0.0000)*	(0.0000)*	(0.0000)*	89% (-)	
16	38								

*, **, and *** refer to 1%, 5%, and 10% significance levels, respectively.

5.2 Testing the Changes in the Sales Efficiency (SALEFF) Pre- and Post-Privatisation

Table 5, rows 2-4, shows that sales efficiency increased in the mean (0.38 percentage point) for the whole sample of privatised firms, although the median dropped (-8.21 percentage points) after privatisation. The study tests the null hypothesis that the change in mean (median) SALEFF post- versus SALEFF pre-privatisation is equal to zero. The alternative hypothesis is that it is not equal to zero. All statistical tests (parametric, Wilcoxon and proportion tests) for SALEFF provide a p-value is more than 10 per cent; thus the change in the SALEFF is not statistically significant at the any chosen given level. Moving to Table 6, rows 2-4, the study makes the same observation for fully privatised firms.

There is no statistically significant change in SALEFF performance following privatisation. The drop in the SALEFF might be related to a number of reasons. The privatised firms have marketing problems as a result of a high stock of goods that had been accumulating, and that was mainly due to production and marketing problems. The privatised firms shifted from being product-oriented to being market-oriented as well as privatised firms did not take enough time to convert their policies to open markets. These results, in fact, tend to be consistent with Boubakri and Cosset (2003). They documented an insignificant change in sales efficiency directly after privatisation.

5.3 Testing the Changes in the Income Efficiency (INEFF) Pre- and Post-Privatisation

Income efficiency measures the labour productivity for the privatised firms. From Table 5, rows 5-7, the mean (median) of INEFF for the test group increased after privatisation from 78 (59) to 103 (93) per cent. As a result of the p-value for a proportion statistical test and the Wilcoxon signed-rank test being equal to or less than 1%, the study rejects the null hypothesis at the 99% confidence level. Thus, there are statistically significant improvements of the INEFF after privatisation for most privatised firms. Table 6 provides the same results for fully privatised firms. This result is probably due to the fact that new managers in privatised firms were being concerned about decreasing their expenses more than increasing their sales.

According to the above, the results reveal that all performance changes in SALEFF of privatised firms are not statistically significant, while they are highly significant for INEFF. These results tend to be partially

consistent with the literature, as Megginson, Nash, and Van Randenborgh (1994), Boubakri and Cosset (1998), Boardman et al (2003), and D'Souza and Megginson (2001), who document significant increases not only in income efficiency but also in sales efficiency.

5.4 Testing the Changes in the Number of Employee (EMPL) Pre- and Post-Privatisation

Rows 10-12 in Table 5 present the decline in the mean (median) of the employment level for the whole sample of privatised firms, which decreased by 607 employees (368 employees) after privatisation.

Since the p-value for all statistical tests is less than 1%, the study rejects the null hypothesis at the 99% confidence level. Hence, there is a statistically significant impact on the change in mean (median) for EMPL. The same observation can be observed by using LOG EMPL as shown in Table 5, in rows 14 and 15. The similar results are shown in Table 6 for fully privatised firms. Although there was no consensus in the effect of privatisation on the level of employment, the study found that more than 85% from the whole sample of privatised firms achieved a statistically significant decrease in their mean (median) of the EMLP.

There is neither theoretical nor empirical consensus with regard to the impact of privatization on the level of employment. Statistical tests show a significant negative impact of privatisation on the employment level of privatised firms. The reduction in the size of employment in privatised firms might be related some waves of downsizing in the privatisation of SOEs as an effort to restructure these companies before selling and the Egyptian government provided an early-retirement programme to employees, who took the opportunity to retire from the civil service, and establish their own small businesses. These results tend to be consistent with Ramamurti (1997), LaPorta and Lopez-de-Silanes (1999), Boubakri and Cosset (1998), D'Souza and Megginson (1999), Boardman, Laurin, and Vining (2003), Dewenter and Malatesta (2001), Bortolotti, D'Souza, Fantini, Megginson (2002) Boubakri, Cosset, and Guedlhami (2005, and Li and Xu (2004), who have documented a significant decrease in the level of employment after privatisation.

6. Conclusion

In this paper, 15 year observations have been used to examine the impact of the privatisation programme on the operating efficiency and the level of employment pre- post-privatisation with special emphasis on Egypt, which cover the period 1991/1992 to 2004/2005. The results concludes that there are significant increases in operating efficiency as well as significant declines in employment. Most of these findings for privatised firms seem to be consistent with the academic studies, such as those by Megginson, Nash and Van Randebogh (1994), Boubakri and Cosset (1998), D'Souza and Megginson (1999), Boubakri and Cosset (2003), Boardman, Laurin, and Vining (2003), Farinós, C.Jose and Ana (2007) in the terms of changes in operating efficiency. However, some other results tend to be in contrast to some previous empirical findings, in terms of employment, as the study documents a significant decrease in the employment level.

From this study, can be drawn three certain policy-implications from the findings of this paper, which are: (i) the policy-makers must realise that changing ownership structure per se has no instant effect on firm performance, but in time would yield greater rewards when competition replaces the monopoly; (ii) although the Egyptian government must retain control over specific industries, they should also allow the private sector to compete with their SOEs, which would encourage these SOEs to shift their management-style toward maximising efficiency and profitability in order to survive; and (iii) the policy-makers do not consider privatisation as a vehicle for economic development. On the other hand, the policy-makers might need to shift their thinking from concentrating on ownership only to considering the effects of market structure or the power of competition as well. Finally, the privatisation programme as a policy could motivate private, privatised, and public firms to face better any future changes in the economic system.

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