

Effect Of Privatization on Profitability of Commercial State-Owned Companies in Kenya

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Abstract: The study sought to establish the impact of privatization on state owned companies' profitability in Kenya. The study used descriptive design to collect and analysis data collected from a target population of sixteen privatized firms listed at the NSE. The study was a census of all the 16 firms with data getting collected for a period of 10 years, 5 pre- privatization years and 5 post-privatization years. The study tested the presence of multicollinearity, heteroscedasticity and normality. Completeness of data was checked being entered into excel sheet. The excel data sheet was exported to STATA software that was used in analysis. Descriptive statistics were first generated before inferential analysis. Minimum, maximum, mean and standards deviation were generated. The study adopted pooled cross- sectional regression in estimating the coefficients of the explanatory variables. The regression assisted in establishing the effect of privatization, state ownership, firm size, and domestic competition on profitability of privatized state firms. The coefficient of determination of showed that majority of the total variation in profitability was explained by privatization, state ownership, firm size and domestic. Further, the p-value associated with the F-statistic showed that privatization, state ownership, firm size and domestic competition had a significant impact on state owned commercial firms' profitability. The study also established that the effect of privatization, firms' size and market competitiveness had a significant direct effect on profitability. The effect of state ownership was significant but inverse. Overall, the F-test had showed that privatization, state ownership, firm size and domestic competition majorly effected profitability of the commercial state-owned companies. The government of Kenya should continue adopting privatization programs through the privatization commission by giving up majority of their stake to the private sector. The top management of commercial state firms to should increase their assets holdings and improve their domestic competition.

Keywords: Privatization, Profitability, State-owned companies.

1. Introduction

Globally, academician, practitioners and policy experts have been preoccupied with the concept of privatization. The role of privatization in economic transformations of economic situations in most countries cannot be over emphasized. The idea and concept of privatization shot into popularity with about eighty countries initially adopting the practice and over six thousand five organizations public organizations being privatized (Hinnawi & Ahmed, 1995). The concept of privatization initially was developed in United Kingdom but with time, the concept has spread to other countries including developing countries. A number of countries have already adopted privatization with dozens of state-owned corporations being privatized; however, some governments are reluctant to relinquish control of state firms to private sector leading to a number of privatization programs being halted (Tran, Nonneman & Jorissen, 2015). Privatization generally refers to relinquishment of control of state firm to private sector in terms of resources and management. Megginson (2017) explained that privatization involves the practice of government transferring capital structure and ownership to private companies or any form of public private partnership in the running of state enterprises. According to Xia and Walker (2015), described privatization and conscious steps taken to encourage private the participation of private sector in the public affairs where the government transfers ownership of

some state-owned corporation wholly or partially. Tran, Nonneman and Jorissen (2015) noted that privatization is the elimination of total control of public institutions into the hands of private citizen's hands. Rajwani and Liedong (2015) on the other described privatization as an act of issue of shares of public corporations to the private sector. The goals of privatization may be political or economic; Economic objectives involves enhancing productivity, encouraging stronger private sector, lowering debt burden on the state and encouraging state firm to run independently (Bruton, Peng, Ahlstrom, Stan and Xu, 2015). The Political objectives may involve making free resources for reallocation to priority areas, eliminate interference by politicians and to actualize the participation of staff as stock holders. Whereas firm oriented objectives may include improving performance, consumer-oriented objective is about improving services and/or goods. All privatizations ought to be evaluated to ensure that the goals have been achieved. (Sheshinski and López, 2003). The study adopted dummy variable where 1 represents pre privatization years and 0 represents post privatization years (Gitundu, Sifunjo, Kiprop & Kibet, 2015).

Profitability is the ability of business to generate enough revenues to offset expenses of running the organizations and compensate the owners or entrepreneur inform of profits. Profitability is also described as the measure of performance of business-oriented firms. Profitability can also be defined as an aspect of overall performance where a business organization generates adequate revenues to cover the cost of operation. Profitability just like other aspects of performance of firms can be measured using number proxies. According to Tonchia and Quagini (2010), the stakeholders of a firm in general and shareholders in particular expect to earn a return on investment after the firm offsetting cost of operations including payment to employees, suppliers, financiers, government taxation. All the stakeholders have a claim on the profits generated by a firm (Tanui, Magadi, Tanui & Rotich, 2018). Profits of a business in principle total revenues generated less total expenses incurred by a firm. The profits can be a positive figure when sales revenues are more than total costs incurred. The profit figure can also be negative in cases whereas total revenues generated cannot settle the total cost incurred by a firm completely, negative profits can be called losses (Quagini & Tonchia, 2010). Practitioners have presented various proxies to measure profitability including return on equity that is the ratio between profit and equity. Return on sales is a measure of profits as percentage of sales also referred to as net profit margin. Another measure commonly used in profitability measure is return of assets that can be a ratio or percentage. Return on assets (ROA) as a ratio is the ratio of profits after tax to total assets of the firm (Estrin & Pelletier, 2018). The study will adopt ROA to measure profitability of commercial privatized firms in Kenya.

In the early 1980s, the Government of Kenya came up with policies aimed revitalizing the economy through mechanisms such as privatization so as to involve the private sector in economic development. The government achieved this through privatization of state-owned corporations leading to reduced need for supporting the firms through tax revenues. In 1988, the government privatized KCB through public offer of the shares at the NSE leading to sale of 20% stake. In the year 1996, the government privatized Kenya Airways. In the year 2006, the government through NSE, initiated a working committee aimed at actualizing demutualization (NSE, 2019). The demutualization at NSE has provided the government with an avenue for the liberalization firms that were previously public dominated. The NSE has provided the government to divest in the said firms. The government has already offered some its stake in Eveready batteries Limited, Stanbic Kenya Limited, Safaricom, Mumias Sugar Company, Kengen, Kenya Reinsurance Corporation, KCB, among others. The NSE has provided an opportunity for the public to acquire ownership in the profitable companies hence getting the opportunity to earn income inform of dividends offered by the company. NSE has also provided opportunity to small-scale investors with opportunity to purchase a stake into profitable companies (NSE, 2019).

The privatizations programs have been successful in some firms while other have not be successful. The successful privatizations have been Safaricom Telecommunication Kenya, Electricity Generating Company, Kenya Reinsurance Corporation, Kenya Commercial Bank Ltd, and Stanbic Kenya Ltd Banking, National Bank of Kenya Banking, BAT Development (K) Ltd, CMC Holdings Automobile, Housing Finance Company of Kenya. For instance, Safaricom Ltd has had positive ROA of 0.35 in 2016, 0.43 in 2017, 0.47 in 2018 and 0.47 in 2019. The assets have grown from 158 billion in 2016, 161 billion in 2017, 167 billion in 2018 and 192 billion in 2019. Another set of companies that have been performing poorly even with privatization includes Mumias Sugar Company, Eveready Batteries Kenya Ltd, Kenya Airways Commercial, E.A. Oxygen Ltd- BOC, Uchumi Supermarkets Ltd and. Bamburi Portland Cement Co. Ltd. For instance, Kenya airways has been performing poorly with firm size in terms of total assets shrinking from 158 billion in 2016, 147 billion in 2017 and 136 billion in 2018. The ROA has also been negative for the last five years. The ROA was -14% in 2015, - 16.58% in 2016, -4.35% in 2017 and -5.5% in 2018 (Kenya Airways Ltd, 2018; Safaricom ltd, 2019; privatization commission of Kenya, 2020). There exist various studies on the association between privatization and performance; however, gaps exist in literature. First, majority of studies already done have been based on primary data with few studies relying on secondary data. Second, studies done have tended to examine performance in general with few studies examining profitability. Finally, few studies have been done on privatized firm listed at NSE. The study therefore sought to answer the research question: what is the effect of privatization on profitability of is commercial state-owned companies in Kenya?

2. Literature Review

2.1. Theoretical Framework.

The theory of allocation efficiency was proposed by Adam, Cavendish and Mistry (1992). The allocation efficiency theory holds that competition introduced by private sector is crucial for state firms to achieve allocative efficiency. The productive efficiency theory was proposed by Farrell (1985). It holds that productive efficiency is about the firm training its efforts in reducing production costs and having efficient processes that deliver products. The theory of public choice theory has major proponents in Niskanen (1972) and Boycko, Shleifer and Vishny (1996). The public choice theory assumes a more an approach with bureaucracies in which state owned firms are seen as tool of achieving the goals for the politicians in terms of maximization of budgets and votes (Niskanen, 1972; Boycko et al., 1996).

2.2 Empirical Review

Empirical studies on privatization and performance exist in the literature. In as study of Kenya Airways, Ochieng and Ahmed (2014) evaluated the contribution of privatization to financial performance. The study was based on adopted approach with target population being the management of KQ and finance experts. The study employed a sample consisting of thirty-seven employees chosen while employing stratified random sampling. The study adopted OLS regression to analysis data with the results showing that privatization was highly associated with financials at KQ. The study was however based on KQ only and the findings may not be wholesomely applied to other firms. Gitundu, Sifunjo, Kiprop and Kibet (2015) studied the difference in performance of non-privatized and privatized at the NSE. The study employed a sample of sixteen firm of which eight were privatized firms and the remaining eight were other listed firms between the period beginning 2007 and ending 2013. Performance was measure using proxies such as ROA, cost efficiency and Tobin Q. Data used was secondary nature obtained from financial statements, CMA reports and NSE website. The study adopted paired t test with findings showing significant difference based on ownership of the firms. The study revealed significant differences in cost efficiency and Tobin Q. Al Hinai (2016) investigated the link between privatization through initial public offer and performance of state-owned corporations. The study examined sixty-one firms in sixteen years. Measures of financial performance such operating efficiency, profitability and employment creation. The study revealed that former state firms privatized firms performed better with privatization. They became cost efficient, profitable and employed more people. The study further examined the difference in performance of privatized and private companies finding that there was significant improvement in earnings and profitability levels.

A study by Ndegwa (2015) among Kenyan firms investigated the link between profitability and privatization. The descriptive study used systematic random sampling. The study targeted one hundred and two privatized state firms as from the end of the year twenty fourteen. The used OLS regression model with findings revealing improved profitability of state-owned corporations with privatization. The improved profitability was due to cost and management efficiency and improved labour productivity. A study by Makokha (2013) in a study of former state firms in Kenya evaluated the contribution of privatization to financial performance. Listed former state-owned corporations at the NSE were the target population. The study adopted descriptive survey design and a target population of all listed former state-owned corporations at the NSE. The research employed five-year secondary data before and privatization. The expiatory variables used in the study included liquidity, leverage and the depended variables was profitability measured using ROA. The research revealed financial performance was positively affected by privatization. A study by Estrin and Pelletier (2018) investigated the experience at the international sate associated with privatization in developing economies. The study established that privatizations could only be successful if the private sectors is associated with efficiencies and productivity. The study further reveals that success of privatization must be evaluated against specific objectives and that privatization when successfully carried out leads to cost saving and efficiency that reduces the burden on tax payer inform of subsidies for such firm and tax revenues generated in the process from profits earned by such firms.

Ileri (2016) studies the factors leading to poor performance among state owned enterprises in Kenya. The study targeted factors including appointment of management, legal framework, politicization, indebtedness, gender diversity in appointments of the board and economic conditions. The study revealed that appointment of BOD that did not follow the law was a contributor to poor performance of state-owned corporations, as the appointees do not run the state-owned firms in the interest of the public good rather than selfish goals of the appointing authority. Siddiqui and Lodhi (2015) investigated the link between performance and privatization of Pakistani banks. The difference in performance between sate owned privatized banks and public banks was examined. The study collected secondary data running from 2009 to 2014. Data analysis revealed that privatized banks outperformed the public banks. The study concludes that privatization has crucial impact on performance of privatized banks in Pakistan as it enhances profitability, efficiency, and productivity.

2.5 Summary of Literature

Ochieng and Ahmed (2014) revealed that privatization was highly associated with financial performance in the air transport industry. Gitundu, Sifunjo, Kiprop and Kibet (2015) findings showed significant difference based on ownership of the firms. The study revealed significant differences in cost efficiency and Tobin Q. Al Hinai (2016) revealed that privatized firms performed significantly better after privatization. Ndegwa (2015) revealed improved profitability of state-owned corporations with privatization. Estrin and Pelletier (2018) showed that privatization when successfully carried out leads to cost saving and efficiency.

3. Methodology

The study adopted descriptive design. The design enabled the researcher to collect relevant data describing privatization and profitability. The data analyzed using quantitative methods to establish the contribution of privatization to profitability of commercial state-owned firms in Kenya. Sixteen (16) privatized companies listed at the NSE was the target population. The study was a census of all the 16 privatized companies listed at NSE hence no sampling was carried out. Annual panel data was collected for a period of 10 years (5 pre- privatization years and 5 post-privatization years). The data obtained was annual and secondary in nature and obtained from the different sources. Data on profitability and firm size was sourced from audited financial statements; data on government ownership was obtained from privatization commission of Kenya. Data on domestic competition of the firm was obtained from competition authority of Kenya. Data for privatization will assume a value of zero (0) for pre- privatization period and a value of one (1) for post privatization period. The study collected data on profitability, state ownership, firm size, and competition for five year period before privatization and after privatization for each firm. The year of privatization was ignored with data collected being recorded on data collection sheet. The operationalization of study variables is presented in Table 1 showing the variables, notation, proxies and measurement of variables.

Table 1:: Measurement of Study Variables

Variable	Notation	Proxy	Measurement
Dependent Variable			
Profitability	ROA	ROA	After tax profit to total assets ratio
Independent Variable			
Privatization	PRIV	Dummy	Value of one (1) for post- privatization years and zero (0) for pre- privatization years.
Control Variables			
State Ownership	SO	Share ownership by Government	Percentage of shares ownership by government.
Firm Size	Size	Total Assets	Log of total assets of the firm.
Domestic competition	Dcomp	Market Share in terms of assets	Ratio of total assets of the firm to total assets of all firms

Classical least squares assumptions were tested to ensure the model to be used is robust. The study tested the presence of multicollinearity, heteroscedasticity and normality. Serial correlation and unit roots were not tested because pooled cross-sectional studies do not suffer from them. Multicollinearity is said to exist when the exogenous variables are highly correlated. The problem of multicollinearity leads to inflated and misleading parameter estimates (Alin, 2010). The research used Value Inflation Factor (VIF) test to determine the existence of multicollinearity. A VIF value above 10 signify presence of multicollinearity. Heteroscedasticity is said to exist when the residuals do not have a constant variance. The parameter estimates become misleading and may not be relied on for forecasting purposes. The study adopted Wald test in which a p-value greater than 0.05 signify absence of heteroscedasticity. Normality describes the quality of observed data set and residuals to show normal distribution where the mean and median are equal. The data set concerning a given variable is said to be normal when it fits into a symmetrical bell-shaped curve. The study adopted Shapiro Wilk test where a p-value greater than 0.05 signify normality of observed data and residuals (Linton, 2019). The data collected keyed into excel sheet and thereafter proxies were generated. The excel sheet was copied to data editor section of STATA Version 14 for eventual analysis. Descriptive statistics analysis involved minimum, maximum, mean and standards deviation. Inferential statistics used regression analysis. The study adopted pooled cross-sectional regression model for estimation of coefficients of the explanatory variables. The study adopted pooled cross-sectional regression model in equation [1] to examine the effect of privatization on profitability.

$$ROA_{ij} = \beta_0 + \beta_1PRIV_{ij} + \beta_2SO_{ij} + \beta_3Size_{ij} + \beta_4Dcomp_{ij} + \epsilon_i \dots \dots \dots (1)$$

Where ROA = profitability, **PRIV** = Privatization measured by dummy variable; it takes a value of one (1) for each year in the post- privatization period and zero (0) in the pre- privatization period. Privatization is the independent variable. SO, Size, Dcomp are the control variable. **SO** = State ownership that captures the extent of privatization measured by percentage of shares ownership by government to total number of shares in the specific company. **Size** = Firm size measured by natural logarithm of total assets of the firm. **Dcomp** = Domestic Competition measured by ratio of firm assets to total assets of all firms. β_0 = Intercept term, $\beta_1, \beta_2, \beta_3$ and β_4 are the coefficients of explanatory variables, ϵ = Error term capturing an observed characteristic, $j= 1, 2, 3, \dots, 15$ Are the cross-sectional units representing the number of privatized companies. $t=$ time period of ten years (5 pre privatization years and 5 post privatization years). The regression assisted in establishing the effect of privatization, state ownership, firm size, and domestic competition on profitability of privatized state firms at 5% level of

significance.

4. Results

4.1 Descriptive Analysis

Descriptive analysis was carried out with the purpose of establishing general movement of study variables. The descriptive analysis was also critical in identifying outliers that would interfere with inferential analysis. The descriptive analysis included mean, standard deviation, minimum and maximum (Table:2).

Table 2:: Descriptive Analysis

10 Years Before Privatization				
	Size(Ksh.Millions)	ROA	SO	Dcomp
MEAN	58814.3125	0.0363	0.5845	0.0215
SD	85518.9193	0.1339	0.3309	0.0312
MIN	1150.0000	-0.0814	0.1500	0.0004
MAX	282493.0000	0.2488	1.0000	0.1031
N	16	16	16	16
10 Years After Privatization				
	Size(Ksh.Millions)	ROA	SO	Dcomp
MEAN	117,272.3125	0.041469	0.28	0.0428
SD	218,397.0396	0.242488	0.21	0.079707
MIN	1,094	-0.48809	0.00	0.000599
MAX	874,490	0.47087	0.70	0.319157
N	16	16	16	16

Return on assets (ROA), Privatization (PRIV), State ownership (SO), Firm size (Size) and Domestic Completion (Dcomp).

The Table 2, return on assets was measured by the ratio after tax profit to total assets. The mean ROA was 0.036 and 0.041 for before and after privatization implying that ROA of commercial state-owned companies in Kenya improved with privatization. The standard deviation for ROA was 0.13 and 0.24 before and after privatization respectively implying that the ROA of individual firms was spread around the mean with about 13% before privatization and 24% after privatization. The minimum ROA was -0.081 and -0.48 before and after privatization respectively implying that a given firm had the lowest ROA after privatization. The maximum ROA was 0.24 and 0.47 for before and after privatization respectively implying that that a firm had the highest ROA after privatization period. Firm size was measured by the total assets of the firms. The mean firm size was Ksh.58.8 billion and Ksh.117.2 billion before and after privatization respectively implying that mean firm size improved with privatization. The standard deviation for firm size was Ksh.85.5 billion before privatization and Ksh.218.3 billion after privatization implying that the spread of individual firm size around the mean increased with privatization. The minimum firm size was Ksh.1.15 billion and Ksh.1.094 billion for before and after privatization respectively implying that the firm that had the lowest firm was after privatization. The maximum firm size was Ksh.282.4 billion and Ksh. 874.4 billion for before and after privatization respectively implying that the highest firm size was achieved after privatization. The percentage share ownership by government was used as the proxy of state ownership. The mean state ownership was 0.58 and 0.28 for before and after privatization respectively meaning that state ownership reduced considerably with privatization as government gave up some shares for private sector acquisition. The standard deviation was 0.33 and 0.21 for before and after privatization respectively showing that the spread of state ownership of individual firm around the mean reduced with privatization. The minimum state ownership was 0.15 and 0 before and after privatization respectively implying that the government gave up all share ownership in one of the firm after privatization. The maximum state ownership was 1 and 0.7 before and after privatization respectively meaning that the firm that had the highest state ownership after privatization was about 70% a reduction from 100% before privatization.

Domestic competition was measured by ratio of firm's total assets to industry total assets. The mean domestic competition was 0.0215 and 0.0428 for before and after privatization respectively implying that the domestic competitiveness of individual firms improved with privatization. The standard deviation for domestic competition was 0.0312 and 0.0797 for before and after privatization respectively meaning that the spread of domestic competition for individual firms around the mean increased with privatization. The minimum domestic competition was 0.0004 and 0.00059 for before and after privatization respectively meaning that the lowest domestic competition was before privatization. The maximum domestic competition was 0.1031 and 0.3191 meaning that the highest domestic competition for a firm was achieved after privatization.

4.2 Diagnostic Tests

The study tested the classical least squares assumptions to ensure the model to be used is robust. The study tested the presence of multicollinearity, heteroscedasticity and normality test of model suitability. “The study adopted Shapiro Wilk test where a p-value greater than 0.05 would signify normality of observed data and residuals (Linton, 2019). The finding showed that the variables used in the study were normally distributed with associated p-values being greater than 0.05 level of significance. The study also examined the presence of heteroscedasticity.” The study adopted Wald test where a p-value greater than 0.05 signify absence of heteroscedasticity. The findings showed that p-value obtained was greater than 0.05 level of significance. “The null hypothesis of panel homoscedasticity was not rejected with the study concluding absence of heteroscedasticity in the model. The presence of multicollinearity was also examined with the study adopting Value Inflation Factor (VIF) test to examine the presence of multicollinearity. A VIF value above 10 would signify presence of multicollinearity. The findings showed that there was no problem of multicollinearity given that the VIF values associated with explanatory variables were all less than 10.

4.3 Regression Analysis

The study adopted pooled cross- sectional regression model for estimation of coefficients of the explanatory variables. The study had sought to examine the effect of privatization on profitability of commercial state-owned companies in Kenya. The study output included the coefficient of determination, the F-Test and T-test. The significance was examined at 5% level of significance as presented in Table 3.

Table 3: Pooled Cross-sectional Regression

Source	SS	df	MS	Number of obs	=	32
Model	1.847016804	4	.461754201	F(4, 27)	=	119.15
Residual	.10463218	27	.003875265	Prob > F	=	0.0000
Total	1.95164898	31	.465629466	R-squared	=	0.7175
				Adj R-squared	=	0.7033
				Root MSE	=	.68237

ROA	Coef.	Std. Err.	t	P> t 	[95% Conf. Interval]	
PRIV	-.1362506	.0466977	2.92	0.028	-.0141397	-.4163841
SO	-.2483862	.0743332	-3.34	0.005	-.5424802	-.0457079
Size	.316181	.0298101	10.61	0.000	.0449843	.8773462
Dcomp	.0019971	.0849354	2.35	0.041	-1.722761	1.762703
_cons	-.0826081	.270959	0.30	0.763	-.4733539	-.6385701

The findings presented in Table 3 showed that the coefficient of determination (R²) was 0.7175 implying that the model explained 71.75% of the total variation in profitability of commercial state-owned companies in Kenya. The remaining variation of 28.25% in profitability was explained by unobserved variables that were not in the scope of the current study.

Further, the p-value associated with the F-statistic showed that privatization, State ownership, firm size and domestic competition had a significant effect on profitability of listed commercial state-owned companies in Kenya (F=119.15 and p=.000< .05). The t- statistics associated with coefficients showed the effect of each explanatory variable on profitability of listed commercial state-owned companies. The study established that the effect of Privatization on profitability was positive and significant (β₁ = .1362, t = 2.92 and p = .028). The study also established inverse and statistically significant effect of state ownership on profitability (β₂= -.2483, t = -3.34 and p = .005). The effect of firm size on profitability was positive and statistically significant (β₃ = .3161, t= 10.61 and p=.000). The effect of domestic competition on profitability was positive and statistically significant (β₄ = .00199, t= 2.35 and p = .041). The constant term (β₀ =.0826, t = 0.30 and p= .763). The model was this estimated as follows:

$$ROA_{ij} = .1362 PRIV_{ij} - .2483 SO_{ij} + .3161 Size_{ij} + .00199 Dcomp_{ij} \dots\dots\dots (2)$$

5. Discussion

The coefficient of determination (R^2) was 0.7175 meaning that privatization and the control variables explained 71.75% of the total variation in profitability of commercial state-owned companies in Kenya. The coefficient of determination showed a good fit hence it can be concluded that the model explains the variation in profitability of commercial state-owned companies in Kenya. The remaining variation of 28.25% in profitability captured unobserved factors not in the scope of the current study. Some of the variables not studied includes industry variables and macroeconomic factors. Further, the p-value associated with the F-statistic showed that privatization, State ownership, firm size and domestic competition significant effected profitability of listed commercial state-owned firms in Kenya ($F=119.15$ and $p=.000 < .05$). The finding implies that privatization programme, state ownership, firm size and domestic competition were responsible for change in profitability. The study showed that privatization had a direct significant effect on profitability ($\beta_1 = .1362$, $t = 2.92$ and $p = .028$). Implementation of Privatization programme was associated with 0.1362% improvement in profitability of commercial state-owned companies in Kenya. The finding implies that privatization is associated with improved performance that comes by improved efficiency and effectiveness as managers are exposed to competition hence must find avenues of generating enough revenues especially through means like privatization. Privatization can help enhance the efficiency and cost effectiveness of firms as the firms become accountable to private owners. The finding are in agreement with Siddiqui and Lodhi (2015) who concluded that privatization has crucial impact on performance of privatized banks in Pakistan as it enhances profitability, efficiency, and productivity. Further, Makokha (2013) revealed financial performance was positively affected by privatization. Al Hinai (2016) also showed that that former state firms performed better with privatization in terms of job creation, profitability and cost efficiency. However, Estrin and Pelletier (2018) had contrary opinion establishing that privatizations could only be successful if the private sectors is associated with efficiencies and productivity.

The effect of state ownership on profitability was inverse and statistically significant ($\beta_2 = -.2483$, $t = -3.34$ and $p = .005$). “A one percent increase in state ownership was associated with reduction in profitability of commercial state-owned companies in Kenya by 0.248%.” The finding implies that state ownership stifles profitability as state ownership is associated with reduced innovativeness and efficiency. More state ownership in a firm is further associated with bureaucracies and red tapes making decision making slower hence impacting on profitability. Government dominated ownership is also associated with political interference in the day-to-day management of the firms. Such interference leads to decisions that are sub-optimal hence falling profitability. The findings are in agreement with Gitundu, Sifunjo, Kiprop and Kibet (2015) that showed significant difference in profitability based on ownership of the firms with firm that state owned majority of shares underperforming those that the state-owned majority of shares. Ndegwa (2015) also revealed profitability was inversely affected by state ownership change. Rakhman (2018) noted that privatization where the state gives up some shares was an avenue for the government to improve the performance of lowly performing state-owned firms as well as improve service delivery for the benefit of the citizens. However, the findings are contrary to Xia and Walker (2015) who showed that state firms can increase profits by just increasing prices rather than produce efficiently and attract new customers. The state firms could thus increase profits without having to be efficient but by charging high prices for products.

The study also revealed a direct significant impact firm size on profitability ($\beta_3 = .3161$, $t = 10.61$ and $p=.000$). A one percent increase in firm size leads to increased profitability of commercial state-owned companies in Kenya by 0.31%. The finding implies that large firm with greater assets size can compete favorably with their competitors in the market place and be able to take advantage of opportunities arising in the market with no or little competition. Firms having adequate assets size are able to exploit opportunities as they arise hence improved profitability. However, expansion beyond certain levels have also been associated with negative profitability. The results are in congruence with Akbas and Karaduman (2012) who revealed that large in terms of their operation and assets size are able to enjoy the internal economies of scale making it possible for them to offer goods and services at lower average costs compared to relatively smaller firms. However, Ayaydin and Karakaya (2014) had contrary findings showing that high asset growth rates may be associated with falling profitability in the short run especially if the expansion is in heavy investment. Ayaydin and Hayaloglu (2014) also showed that size, location, age, and industry have little explanatory power over profitability. The effect of domestic competition on profitability was direct and statistically significant ($\beta_4 = .00199$, $t = 2.35$ and $p = .041$). A one percent increase in domestic competition competitiveness of the firm is associated with 0.0019% increase in profitability of commercial state-owned companies in Kenya. The finding implies that firms that have large market size also reported dominant profitability. Former state ownership dominated firms usually tends to be monopolists hence they have great market reach. The established market reach are often exploited by such firms to enhance their profitability. The finding are in agreement with Xia and Walker (2015) that revealed that state firms tends to be monopoly firms hence they do not face any serious competition in the market. The absence of competition encourages inefficiency as a firm can increase profits by just increasing prices rather than produce efficiently and attract new customers. Bruton et al. (2015) explained that state firms operate under flexible budget with promise of money from exchequer making them inefficient.

6. Conclusions

Overall, the F-test had showed that privatization, state ownership, firm size and domestic competition had a major impact on profitability of listed commercial state-owned firms in Kenya. The study finding meant that privatization programme, state

ownership, firm size and domestic competition were responsible for profitability commercial state-owned companies in Kenya. Further, the positive effect of privatization on profitability meant that privatization is associated with improved performance that comes by improved efficiency and effectiveness as managers are exposed to competition hence must find avenues of generating enough revenues especially through means like privatization. Given the inverse and major effect of ownership by state on profitability, the finding implies that state ownership stifles profitability as state ownership is associated with reduced innovativeness and efficiency. More state ownership in a firm is further associated with bureaucracies and red tapes making decision making slower hence impacting on profitability. The study also revealed a direct major effect of firm size on profitability. The finding means that that large firm with greater assets size can compete favorably with their competitors in the market place and be able to take advantage of opportunities arising in the market with no or little competition. The research also showed that domestic competition directly affected profitability. The result means that firms that have large market size also reported dominant profitability. Former state ownership dominated firms usually tends to be monopolists hence they have great market reach. The established market reach are often exploited by such firms to enhance their profitability. The study suggests to government of Kenya to continue adopting privatization programs through the privatization commission. Privatization is associated with improved performance that comes by improved efficiency and effectiveness as managers are exposed to competition hence must find avenues of generating enough revenues. Further, privatization has enhanced the efficiency level in business firms given that privatized firm becomes accountable to private shareholders. The study also suggests to government of Kenya through the treasury and privatization commission to give up majority of their state to the private sector. Reduced government ownership in commercial state firms is associated with improved profitability. Further, businesses that owned and managed by government tends to underperform in terms of profitability since they concentrate on other goals apart from profitability. Government owned businesses tends to concentrate on other objectives that are often political or social in nature that conflict with profitability objective.

Conflicts of Interest

“The authors declare no conflicts of interest.”

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