

Equitization and Firm Performance in Vietnam: Theory and Practice

Nguyen Van Tan
Becamex Business School, Eastern International University
Binh Duong, Vietnam
E-mail: tan.nguyen@ieu.edu.vn
Tel: +84 919 118 113

Abstract

This study examines roles of privatization theories explaining firm performance after privatization in certain countries and in Vietnam, whereby the author suggests the possibility of applying these theories to explain the impact of equitization in Vietnam. In addition, this study also provides an overview of equitization process in Vietnam in terms of stages theory approach. Empirical studies show that privatization does not always help businesses to operate more efficiently after privatization, especially in Vietnam. Through the application of qualitative research methodology to revise previous theories and empirical studies, the author concludes that empirical studies have different results on the effect of privatization on firm performance after privatization due to the lack of suitable theory to explain the cyclical effect of privatization on firm performance after privatization. Privatization stage is also a determinant of firm performance after privatization. The author proposes to develop a new theory to explain the stage nature of privatization program and new methods for measuring the impact of equitization on firm performance in Vietnam as well as in other countries.

Keywords: Equitization, privatization, firm performance, IPO

JEL Classification: L25

1. Introduction

According to the global trend, privatization is an inevitable process and has a positive effect on firm performance after privatization. Privatization has many positive aspects such as: (i) increasing economic efficiency; (ii) helping to reduce budget deficits (directly related to financial inefficiencies); (iii) improving the public finance system for SOEs. Some theories concerning privatization also suggest that the privatization process is indispensable and should be widely applied in countries, especially in developing countries. In Vietnam, the term “equitization” is used more often than “privatization”. Because equitization in Vietnam has many characteristics of the firm ownership structure after equitization, equitization does not mean that the State sells all of its assets to private sector but still holds a portion of shares, especially for some enterprises in essential industries, the State still has to hold a great number of shares, such as energy, telecommunication, etc.

According to the Vietnamese Steering Committee for Enterprise Renovation and Development (2017), equitization of enterprises in Vietnam was conducted in the early 1990s with the first pilot stage of 558 equitized enterprises, the following stage was to promote the equitization process (between 1998-2011) including 3,021 equitized enterprises, the third stage was to restructure SOEs (from 2012 up to present) but the number of equitized enterprises has also declined considerably so far.

This can be explained that small and medium size SOEs were equitized in the first and second stage while the majority of SOEs and large corporations were not equitized. In addition to the above reasons, what other reasons lead to postpone the equitization process of state-owned enterprises and corporations in Vietnam? In order to answer the above question, it is necessary to determine whether equitized SOEs are performing well compared to non-equitized SOEs in the same period.

The slow privatization progress of SOEs is also due to the fact that most private investors have not been attracted in IPO investment, and investors have always questioned whether state-owned enterprises operate more efficiently after privatization or not. And private investors don't know whether equitized SOEs will be listed on the stock exchange or not because the number of state-owned enterprises listed on the stock exchange is very limited in Vietnam. Investors want to receive high initial abnormal returns for the first listing days. There were a great number of equitized SOEs during the stage of 2003-2006 (with 2,649 equitized enterprises, accounting for 66.3% of the total equitized enterprises up to September 2017) and this stage was called the "explosion" stage of equitization with a very high average number of equitized enterprises per year. In particular, there have been no empirical studies to explain why after the "explosion" stage of equitization, private investors were not interested in IPO, and they have been more serious in IPO investment in recent years.

Therefore, measuring the impact of equitization on firm performance of enterprises has attracted the interest and research from many domestic and foreign scholars. These studies only focus on privatization of SOEs and can be classified into three categories: (i) Earlier studies adopting pre-post comparison method to measuring the impact of privatization on firm performance of equitized enterprises, pioneered by Megginson, Nash, and Van Randenborgh (1994). The authors compare mean values of each financial measure for 3 year privatization windows. (ii) earlier studies adopting with-without comparison method, and typical researchers using this approach are Pohl, Anderson, Claessens, and Djankov (1997), Frydman, Gray, Hessel, and Rapaczynski (1999), Claessens and Djankov (2002). These studies evaluate the effect of privatization on firm performance by contrasting performance of those after privatization with non-privatized ones in the same periods; (iii) studies using regression method to measure causality to analyze the impact of firm ownership on firm performance after privatization (Claessens & Djankov, 2002). In addition, some other studies use macroeconomic and macroeconomic factors that affect firm performance after privatization (Boubakri, Cosset, & Guedhami, 2004; Boubakri & Cosset, 1998; Zhang, Tang, & He, 2012). In Vietnam, many authors evaluated the impact of privatization on firm performance using all three methods. The pre-post comparison method was used by Pham (2017), Hung, Thien, and Liem (2017), Loc, Lanjouw, and Lensink (2006), Loc and Tran (2016) use with-without comparison method. Some researchers use regression method to identify factors impacting on performance of equitized enterprises (Hung et al., 2017; Loc et al., 2006; Tran, Nonneman, & Jorissen, 2015). However, domestic and foreign studies mainly tested the difference in mean and median values of firm performance measures. Previous studies have not identified uniformity among equitized firms and non-equitized firms to compare firm performance, most of previous researchers used cross-sectional data approach and have not applied new methods in evaluating the impact of equitization on firm performance of privatized SOEs, namely the combination of PSM (propensity score matching and DD estimation).

Although empirical studies use the same methods, they still have inconsistent results. Many authors argue that privatization is not a good choice for governments when they like to improve SOEs performance. Other studies have shown that privatization is a good choice for many countries, not only in developed countries but also in developing countries. An unanswered question is whether privatization theories fully explain firm performance after privatization or not. And do suitable methods will help to explain the impact of privatization on firm performance?. These two unanswered questions are still in research debate until now because no empirical studies have summarized privatization theories and methods explaining the impact of privatization on firm performance. This research is organized in 6 parts, including: (1) Introduction; (2) Research Objectives and Methodology; (3) Background of Vietnamese Equitization; (4) Theories of privatization and empirical studies; (5) The research results and (6) Summary and Concluding Remarks.

2. Research Objectives and Methodology

This study examines the importance of privatization theories and empirical studies explaining the impact of privatization on firm performance in Vietnam and in other countries using mainly qualitative research methodology of revising important privatization theories and empirical studies.

3. Background of Vietnamese Equitization

3.1 The History of Privatization Programs

Megginson et al. (1994) have summarized the history of privatization programs in developed and developing countries from 1961 to 1990. The first large-scale privatization was conducted in the Federal Republic of Germany (FRG) in 1957, under the government of Konrad Adenauer. According to Waterhouse (1989), Specific objectives of privatization program in Germany are very similar to those of the United Kingdom. These objectives are to: (1) raise revenue for the state; (2) promote increased efficiency; (3) reduce government interference in the economy; (4) promote wider share ownership, (5) provide the opportunity to introduce competition; and (6) expose SOEs to market discipline.

The new Thatcher government first conducted privatization program in the early 1980s. In 1984, British Telecom (BT) was the first company to be privatized in the U.K and privatization was conducted in many countries. After privatization of British Telecom, many governments conducted their own privatization programs. The U.S government also conducted privatization in the late 1980s. After 1987, privatization programs spread considerably around the world, including developing countries in South America, Africa, and South Asia. Some countries conducted their privatization during this time are Bangladesh, Brazil, Chile, Gambia, Malaysia, Mexico, Nigeria, Sierra Leone, Singapore, and Venezuela. In the decade of the 1990s, privatization program shifted to Eastern Europe and the former Soviet Union.

China have implemented "economic reform" policy in 1978. Privatization has been considered as an economic reform policy in China. Up to now, many developing countries have not fully finished their privatization or equitization programs, including China, Vietnam, Myanmar, etc.

3.2 The Equitization Progress in Vietnam

According to Odle (1993), the privatization experience of the developing and developed countries can be classified into traditional, transitional and transformation stages. In the traditional stage, countries have tended to privatize enterprises for which the private sector has an obvious comparative advantage. In the transitional stage, the privatization programme includes certain important enterprises, which, despite a considerable amount of government subsidy or tariff protection, have performed 'inefficiently'. For the transformation stage from a still basically mixed economy to a near pure capitalist economy, there is privatization of the strategic enterprises. In Vietnam, the equitization progress is classified into three stages, including pilot stage (traditional stage), "explosion" stage (transition stage) and the third stage (transformation stage). Odle (1993) proposes stages theory approach to explain privatization progress.

In the first stage (from 1992-2000), 558 enterprises were equitized. In this stage, the progress was slow because there was no Law of Enterprises at that time, The pilot stage was from 1992 to early 1996. The selected enterprises for equitization were medium-and small-sized ones. The pilot equitization stage was under Decision No. 202/CT issued on 8th June 1992 and Direction No. 84 issued on 4th Aug 1993, this stage lasted for 04 years but the number of equitized enterprises was only 5 consisting of 3 central enterprises and 2 local enterprises. This stage was extended from 1996 to early 1998 when the Government issuing Decree No. 28/CP issued on 7th May 1996, that was the first time the Vietnamese Government issued the systematically applicable Decree to give SOEs instructions about purposes of equitization, criteria of SOEs selection, privatization methods,

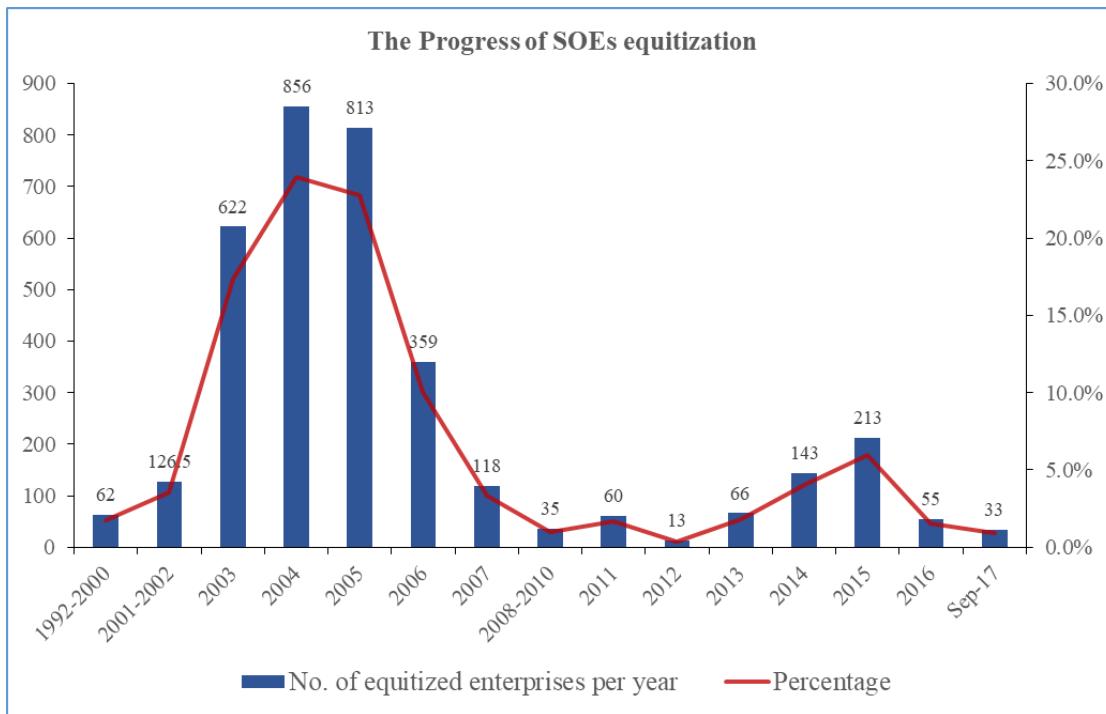
employment incentives and investment incentives for equitized enterprises. As a result, the equitization rate has increased more rapidly, resulting in the transfer of 25 state-owned enterprises into joint stock ones, five time faster than the pilot stage. The size equitized enterprises were larger. The stage from 1998 to 2000 was the stage of accelerated growth, resulting 528 equitized enterprises.

Table 1: Numbers of equitized SOEs in the stage of 1990 – 2017

No.	Time	No. of equitized enterprises	No. of equitized enterprises per year	Percentage	Legal Bases
1	1992-2000	558	65.3	13.2	Decision No. 202/CT issued on 8 th June 1992; Direction No. 84/TTg issued on 4 th Aug 1993; Decree No. 28/ ND-CP issued on 7th May 1996; Decree No.25/ ND-CP issued on 26 th March 1997; Decree No. 44/ ND-CP issued on 29 th June 1998.
2	2001-2002	253	126.5	6.0	
3	2003	622	622	14.7	
4	2004	856	856	20.3	Decree No.64/ ND-CP issued on 19 th June 2002
5	2005	813	813	19.3	Decree No.187/ ND-CP issued on 16 th November 2004;
6	2006	359	359	8.5	Decree No.109/ ND-CP issued on 26 th June 2007
7	2007	118	118	2.8	
8	2008-2010	105	35	2.5	
9	2011	60	60	0.4	Decision No.929/QD-TTg issued on 17 th July 2012;
10	2012	13	13	0.3	Decree No.59/ND-CP issued on18 th July 2011;
11	2013	66	66	1.6	Decree No.189/ND-CP issued on 20 th November 2013
12	2014	143	143	3.4	
13	2015	213	213	5.0	Decree No.116/ND-CP issued on 11 th November 2015
14	2016	55	55	1.3	
15	2017	37	37	0.8	Decision No. 1232/QD-TTg issued on 17 th August 2017
Total		4,271	100		

Source: Adapted from Report of the Steering Committee for Renovation and Development, Vietnam (2017)

In the second stage (from 2001 to 2007), there were 3,021 equitized enterprises, accounting for 70.73% of total number of equitized enterprises, especially the stage 2003-2006 (with 2,650 equitized enterprises, accounting for 62.04% of the total) was called the "explosion" stage of equitization with a very high average number of equitized enterprises per year and this reflects the trend of market economy when Vietnam prepared to join the World Trade Organization (WTO). Along with the trend of equitization, the growth of the non-state sector was considerably increased in terms of market share, enterprises number, number of employees, capital and investment.

Figure 1: Progress of SOE equitization per year

Source: Adapted from Report of the Steering Committee for Renovation and Development, Vietnam (2017)

In the third stage (from 2008 up to now), the equitization progress has been slow. In four years from 2008 to 2011, there were only 165 equitized enterprises, nearly equivalent to the number of equitized enterprises in 2007 and many times lower than in previous years. From 2011 to 2013, there were only 139 equitized enterprises (60 enterprises in 2011, 13 enterprises in 2012, 66 enterprises in 2013). Those were mostly large scale enterprises with wide range of branches and financial structure complexity. Notably, according to the report of the Steering Committee for Renovation and Development and there were 143 equitized enterprises in 2014.

In general, the equitization of state-owned enterprises from 1992 to date has achieved certain results, the total number of equitized enterprises by the end of 2013 was 3,823 (including state-owned agricultural and forestry farms). As a result, SOEs are more concentrated in the important sectors that the state holds.

However, if compared with the equitization plan, the equitization process of SOEs is generally slow. From 2001 to 2010, the number of equitized enterprises has just reached 1/3 of the plan. According to the Scheme on restructuring SOEs in the 2011-2015 stage, the number of equitized enterprises would be 531 but the new equitized enterprises was only 139 in the stage of 2011 – 2013 and accounted for only 26.17% of the plan. In 2014, the situation has shifted more optimistically, there were 143 equitized enterprises in 2014 and the number of equitized enterprises were 213 in 2015.

From 2016 up to present, the number of equitized enterprises was limited. There were only 55 equitized enterprises in 2016 while the equitization plan for the stage of 2016 to 2020 would reach 240 enterprises. The equitized enterprises from 2008 to present were mainly large SOEs and managed by different Ministries. In this stage, the equitization progress has been slow due to a number of main reasons:

First, there are many ideas that state-owned enterprises should play the leading role, so reducing the number of state-owned enterprises will reduce this role.

Second, after more than 15 years of equitization, the remaining SOEs in the equitization list are medium and large scale ones. The equitization of large scale ones is increasingly complex, especially in the valuation of state-owned assets.

Third, some leaders or agents of state-owned enterprises fear that they will lose or reduce their control enterprises when transforming SOEs from state ownership to private ownership, so they have actively slowed the equitization progress and interfered the equitization process.

The government's retention of majority shares in most equitized SOEs and many equitized SOEs' failure to promptly get their shares listed on stock exchanges, caused investors, especially foreign ones, to lose confidence in the government's equitization program. In addition, other important reasons were the economic crisis and the volatile stock market in 2008 which affected the SOEs equitization process in Vietnam.

4. Theories of Privatization and Empirical Studies

4.1 Related Theories

Researchers have made great effort in proposing theories to explain the role of equitization in firm performance of SOEs. In 1776, Smith proposed the "Invisible Hand" economic theory that: In a market economy, individuals want to maximize their profits. Their expectations promote the development and consolidation of benefits for the whole community. According to Smith (1817), governments do not need to interfere with individuals and businesses; He concluded that the wealth of each nation is not due to strict government regulations, but because of business freedom. This idea has prevailed and made many contributions throughout the world during the nineteenth century.

From the 1930s of the twentieth century, capitalism developed with highly developed productive forces demanding state intervention for economic regulation. The Kenneys school proposed the Keynesian theory on the role of government in the economy of a country. The state must maintain its investment to stimulate both public and private investment through large investment programs (the state intervention in the economy is necessary, each economy can be based on the self-regulating market mechanism). From the 1960s-1970s, PA Samuelson proposed the theory of mixed economy to overcome the limitations of invisible hand theory and the Keynesian theory on the role of government in the economy of a country. "Mixed economy" is the combined economy in which there are enterprises with private ownership and state ownership, and they are affected by the market mechanism as well as the state regulations (Keynes, 2016)

In addition, today's economists still argue which theories explain the role of the state regulating the economy suitably. The unanswered questions is that the government should privatize all SOEs or keep some key enterprises? Some economists argue that the State should only retain a number of key economic enterprises to regulate the economy. Therefore, these economists have encouraged the equitization process in countries, especially in developing countries. Some theories supporting privatization or equitization including public choice theory, property rights theory, agency theory, stakeholder theory and theory of competitive advantage.

Public Choice Theory

Tullock and Buchanan (1972) propose public choice theory to explain the benefits of privatization. This theory explained that politicians consider state-owned enterprises as tools to assert their role and benefit them. This theoretical focus emphasizes performance of SOEs when it explained that SOEs are more inefficient because politicians only aim to orientate state-owned enterprises to increase their power without considering performance of SOEs (Tullock & Buchanan, 1972). Therefore, the privatization of these enterprises is necessary in order to set up the business objectives of the enterprises through transferring ownership rights to private entities in order to improve performance of equitized enterprises (Shleifer & Vishny, 1994). Thus, Haskel and Szymanski (1992) agree with

this point of view that only privatization helps state-owned enterprises achieve performance and productivity goals.

This theory also assumes that state-owned enterprises aim to maximize budgets, disperse risks, maximize labor and investment rather than maximize profits. Megginson et al. (1994) argues that if state-owned enterprises were privatized, there would be significant increase in profitability, real sales, capital expenditure, operating efficiency and work forces while lowering their debt levels and increase dividend payout. Boubakri and Cosset (1998) argues that equitized enterprises will have a significant increase in profitability operating efficiency, capital investment spending, output, employment level, dividends decrease in leverage. Privatization underscores the role of the state as a third party to orientate privatization and the participation of private economic entities. Privatization not only helps businesses to grow, but also improves financial and operational efficiency, legal competitiveness, and important improvement that contribute to the development of enterprises after equitization.

Property Rights Theory

Unlike the public choice theory bases on the choice state ownership to enhance politician's power and interests, property rights theory is built on the basis of the fundamental advantage of ownership. Private-sector firms are more experienced than state-owned enterprises in decision-making and operate more efficiently than SOEs although they operate in same industry environment. Alchian and Demsetz (1973) was the initiator of the property rights and Demsetz (1983) developed the theory, he explains that the effect of privatization on performance of equitized enterprises can be explained through the theory of ownership. Demsetz (1983) argues that business stakeholders have the power to control the performance of a business for efficiency and profitability.

For state-owned enterprises, the ownership of corporate stakeholders is simply state ownership, so it is difficult for them to operate effectively. State-owned enterprise managers generally do not benefit from SOEs' operating profits, so they have no motivation to manage them well. According to this theory, public agents of SOEs do not work hard in management and do not need many innovations in managing SOEs. De Alessi (1983) argues that the difference in ownership of state-owned and private enterprises will no longer exist if state-owned enterprises participate in the privatization process, then this theory could predict that privatization could help to increase the performance of equitized enterprises. Furubotn and Pejovich (1972) also argues that state ownership is not as effective as private ownership because private ownership has many advantages over control mechanisms, management experience, etc. In addition, the efficiency of privately-owned enterprises versus state-owned enterprises is expressed in five dimensions: targeted profit maximization, flexible operation, policies for employee, budget constraints and external control.

Agency Theory

This theory is based on the focus of different representation issues in each ownership form. Managers in both state and private enterprises want to maximize their benefits rather than owner's interests (Jensen & Meckling, 1976). This theory suggests that managers' actions are not always from the owner's interests, which can have a negative impact on the firm performance. For private firms, the difference in benefits between managers and owners is narrowed through external mechanisms such as external capital mobilization or internal control, for example management participation of owners, good reward system and effective board of directors. At the same time, SOEs do not fully reflect these aspects of the organization, leading to inefficient performance.

Economists supporting the theory argue that once an enterprise is privatized, its performance becomes better by narrowing the difference in manager's and owner's interest. In short, when enterprises are privatized, owners will have more participating in management and the enterprise is controlled by the appropriate inspection mechanism and enterprises are likely to operate more efficiently (Ott & Hartley, 1991). Dharwadkar, George, and Brandes (2000) study the privatization in

transition countries also confirms that the agency theory can explain why enterprises operate more effectively after equitization.

However, Cuervo and Villalonga (2000) argue that the theory of ownership and representation only explains why firms are more efficient after privatization without explaining variations of firm performance after privatization.

Stakeholder Theory

Freeman and Reed (1983) proposed the stakeholder theory to explain corporate behavior and operation. The theory explains manager's points of view, and managers first consider their benefits in business. Stakeholder theory also explain that there are multiple parties getting involved in the benefits of a business, including employees, customers, suppliers, financial service providers, the community, state agencies, political groups, trade associations and trade unions. In some cases, competitors may be considered as a related party but it is necessary to separate the competitors as they affect the business and other stakeholders. This theory explains that when stakeholders' interests are properly considered and the goals of each stakeholder are aligned, they will help enterprises to perform better.

Stakeholders of SOEs in Vietnam are governed primarily by state ownership through the state representatives, then their roles and interests are unclear. Therefore, SOEs tends to operate less efficiently than private enterprises. Arens and Brouthers (2001) argue that stakeholder theory can explain the influence of state representatives on performance of enterprises before privatization. This theory may also explain why the efficiency of privatized enterprises is better than that of state-owned enterprises. Uhlenbruck and Castro (1998) argue that because SOE financial resources are primarily provided by the state rather than from the market, managers of SOEs will lack responsibility using capital in the enterprise and leading to the performance inefficiency, then the managers are only responsible for the state and political issues.

This theory also argues that the main objective of SOEs is not to maximize profits but to be governed by other social and security objectives. Once enterprises are privatized, the goal of the private enterprise is to maximize profits, cut costs, accelerate innovation and focus more on research and development. According to a study by Megginson et al. (1994), Boubakri and Cosset (1998), there are 79-86% of firms reaching an increase in labor productivity after privatization. These studies also suggest that private ownership is more effective because managers and private business owners are free to make decisions and their decisions are not driven by political interference (Shleifer & Vishny, 1994).

Theory of Competitive Advantage

This theory is actually derived from explaining competitive advantages at industry level and then developing into competitive advantages at national level. Porter (1990) presented this theory and refers to the issue of competition at industry level or national level. According to Porter (1990), the competitive nature and resources of competitive advantage vary widely among industries or even in small segments within the same industry. Factors that affect the competitiveness of any industry include: human resources, tangible resources, knowledge, finance and architectural resources. As a result, businesses in different competing industries will face different levels of competition and this will affect their performance. Sheshinski and López-Calva (2003) argue that firms in highly competitive industries (not essential industries) will have significant improvement in performance and tend to operate more efficiently.

In other words, if privatized firms are in highly competitive sectors, their performance after privatization will be much better than those in less competitive industries. A study by Megginson et al. (1994) also suggests that there is an increase in the real sales of privatized enterprises and firms in different industries will have different gains after privatization. Porter (1990) argues that firms are actually more involved in the multisectoral competition after privatization, and this means that industry competitiveness will help increase sales for enterprises and employee's incomes. This

improvement will have a positive impact on their suppliers, customers and other industries. The increase in performance will be the starting point for increasing the country's competitive advantage.

Therefore, the industry characteristics and competitiveness of each industry will determine the performance of enterprises after privatization. This is an important factor that affects performance of enterprises after privatization.

4.2 Empirical Studies

Previous empirical studies examine the impact of privatization on performance of privatized enterprises in the context of developing or developing countries, within a region or in a particular country such as Mexico, Czech Republic, Malaysia, etc. Especially, studies on the ownership role or impact of privatization on performance of privatized enterprises were conducted by several authors long time ago, including Caves and Christensen (1980), Christensen and Jorgenson (1970), Yarrow (1986). This is also reasonable because privatization was carried out early in developed countries, specifically conducted in Western Germany in 1957.

There are different points of view on the impact of privatization on performance of privatized enterprises. Some international studies show that ownership does not significantly affect firm performance while other factors affecting business performance include competitiveness advantages at industry and country levels or regulation systems and business environment in countries (Caves & Christensen, 1980; Yarrow, 1986). Therefore, equitization may affect or may not affect performance of equitized enterprises in Vietnam.

Thus, international empirical evidence shows that not every case of privatization has the positive effect on performance of privatized enterprises in countries, and theories of privatization can not always explain performance of enterprises after privatization. This is because privatization or ownership sometimes has limited effect on performance of enterprises after privatization while other microeconomic and macroeconomic factors may affect performance of enterprises after privatization. Cuervo and Villalonga (2000) argue that agency and public choice theory only explain mean changes of firm performance measures, not explaining the variations of performance measures between pre- and post-privatization windows. Cuervo and Villalonga (2000) argue that privatization has little impact on performance of enterprises. The authors argue that privatization and contextual factors (privatization methods, prior restructuring, deregulation) help to change in governance, ownership structure. After that, the post-privatized enterprises will change their operating goals, incentives, and control. Next, enterprises will change their operational strategies, organizational structure, and organizational culture. As a result, performance of privatized enterprises ultimately change and the variations have to be explained through a process like this.

However, There are some empirical studies suggesting that privatization really affects performance of privatized enterprises. Megginson et al. (1994) argue that privatized enterprises have an increase in 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. Consistent with the above results Boubakri and Cosset (1998), D'Souza and Megginson (1999) also prove that there is a significant improvement in performance of privatized enterprises after privatization in developing countries. La Porta and Lopez-de-Silanes (1999) study the case of Mexico and also affirm that enterprises have a greater improvement in profitability and employee income after be privatized, or Harper (2002) also argue that privatization helps enterprises to be more efficient in terms of profitability and capital utilization after privatization.

Thus, international empirical evidence shows that not every case of privatization has the positive effect on performance of privatized enterprises, and theories of privatization can not always explain performance of enterprises after privatization. This is because privatization or ownership sometimes has limited effect on performance of enterprises after privatization while other microeconomic and macroeconomic factors may significantly affect firm performance after privatization. Cuervo and Villalonga (2000) argue that privatization has little impact on performance of

enterprises. Early studies focus more on qualitative research methods to apply privatization theories for explaining the effect of privatization on performance of equitized enterprises in countries such as empirical studies by Caves and Christensen (1980) studying privatization in Canada, Yarrow (1986) studying privatization in the U.K, Vernon-Wortzel and Wortzel (1989) studying privatization in developing countries while Estrin and Perotin (1991) comparing privatization in the UK and France.

Since Megginson et al. (1994) first proposed to use pre-post comparison method and seven performance measures of privatized enterprises, the following empirical studies focus on quantitative research methodology, and they identify the changes in mean, median values with Wilcoxon signed-rank test and proportion of enterprises adopting changes with Mann-Whitney test. Further, studies using these methods include the study by Boubakri and Cosset (1998), La Porta and Lopez-de-Silanes (1999), D'Souza and Megginson (1999), Dewenter and Malatesta (2001), ... or some of the studies that have developed regression models to assess the impact of privatization, for example Harper (2002) identifies the factors that affect the percentage change from pre- and post-privatization performance measures through a multiple regression model with time series data in the Czech Republic, Boubakri et al. (2004) also develop one regression model to apply in the context of Asian countries or D'Souza, Megginson, and Nash (2005) apply in developing countries.

5. Equitization and Firm Performance in Vietnam

The privatization process in Vietnam often referred to as "equitization" and began in 1992. According to Loc et al. (2006), the equitization process in Vietnam has many similarities with privatization in China but this process is different from privatization in Western and developed countries. Equitization in Vietnam does not necessarily mean that the government loses control over SOEs. In Vietnam, the Government still has the right to control and vote in a number of key equitized enterprises after equitization. In addition, employees and managers hold numerous shares of enterprises after the privatization in the developed countries while this reality may not happen in Vietnam for certain cases.

Loc et al. (2006) study on the impact of privatization on performance of privatized enterprises in Vietnam. The research used a pre-post comparison method to assess performance of 121 privatized state-owned enterprises and research data are results from their survey in 2004. The authors use this method to compare changes in mean and median values of performance measures of privatized enterprises in Vietnam through pre-post privatization windows (over three years prior to privatization and three year after privatization). Loc et al. (2006) also employs the Wilcoxon test for mean and median changes and Z-statistic for significant of proportion change. Loc et al. (2006) apply performance measures proposed by Megginson et al. (1994) but there are definite additions, specifically the measures used in this study including profitability (Income before tax on assets, Income before tax on sales, Income before tax on equity), operating efficiency (sales efficiency, income efficiency), output (real sales), leverage (total debt/total assets), employment and Employee income (annual income per employee). The author argues that the purpose of utilizing income before tax instead of after tax is to remove the effect of corporate income tax in comparing firms performance and favorable tax rates might have been offered to some companies that invest in the industry or location under related policies. The author also uses a multiple regression model to determine the factors that affect the percentage change in performance measures of privatized enterprises after privatization. As a result of DD technique, there is an increase in firm performance after privatization and the regression results show that the firm size, ownership structure, corporate governance and listing status affect the performance of privatized enterprises after privatization. However, The author's model only considers the impact of enterprise characteristics on the percentage change in performance without considering the direct impact of privatization policy on performance of privatized enterprises after privatization. In addition, this study do not consider a comparison in firm performance between privatized enterprises and non-privatized SOEs or between privatized enterprises and private enterprises in the same stage to identify the actual impact of privatization on firm performance.

Carlin and Pham (2009) study the effect of privatization on performance of privatized enterprises after privatization in Vietnam. Research data includes 21 companies listed on the HCMC and Ha Noi Stock Exchange in the stage of 2000 to 2003. However, this study considers the year of listing as the year of privatization and the authors calculate performance measures of pre-post privatization windows (1,2 years prior to privatization and 3 years after privatization). The method used is to compare the mean values between the measures before and after privatization, without using statistical tests on mean differences. The measures include profitability, working capital management, liquidity ratio and financial leverage. Results show that privatized enterprises have a decline in profitability but have an improvement in working capital management and financial leverage increase as enterprises want to increase capital after privatization. This finding is not consistent with studies in developed and developing countries by Megginson et al. (1994), D'Souza and Megginson (1999). Carlin and Pham (2009) argue that privatized enterprises face very substantial challenges in their first years of private operation. The greatest limitation of this study is that consideration the listing year as the base year of privatization for comparison is not an appropriate assumption and this study only use absolute values for comparisons without using more accurate testing techniques to compare the change in firm performance after privatization compared with the pre-privatization stage.

Table 2: Firm performance changes after equitization in Vietnam using pre-post comparison methods

Author	Sample size	pre-post privatization windows (years)	Privatization year	Measures	Significant increase in median values after privatization	Significant decrease in median values after privatization	No significant changes	Significant level (Wilcoxon Test)
Loc et al. (2006)	121	3	2004	Profitability (Income before tax on assets, Income before tax on sales, Income before tax on equity) Operating efficiency (sales efficiency, income efficiency), output (real sales) Leverage (total debt/total assets) Employment Employee income (annual income per employee).	Profitability (Income before tax on assets, Income before tax on sales, Income before tax on equity). Operating efficiency (sales efficiency, income efficiency), output (real sales), leverage (total debt/total assets) Employee income (annual income per employee).		Leverage (total debt/total assets) Employment	1%
Carlin and Pham (2009)	29	1,2 years prior to privatization and 3 years after privatization	2000-2003	Profitability (Net profit margin) Working capital management (Debtors days, Stock days, Creditors days, Funding gap) Solvency and capital structure (Current ratio, Quick ratio, Net working capital on sales, Financial leverage (Leverage, Debt to equity)		Net profit margin Debtors days Funding gap Current ratio Quick ratio Net working capital on sales		The author use absolute values without using t-test The author use listing year as privatization year
Nhan and Son	156	2 years	2007-2011	Profitability (Return on Assets, Return on Equity, Return on Sales)	Return on Assets Return on Sales Sales Efficiency	Total Employment Debt to Assets	Return on Equity Real	5%

Author	Sample size	pre-post privatization windows (years)	Privatization year	Measures	Significant increase in median values after privatization	Significant decrease in median values after privatization	No significant changes	Significant level (Wilcoxon Test)
(2017)				Operating efficiency (Sales Efficiency, Net Income Efficiency) Output (Real Sales) Employment (Total Employment) Leverage (Debt to Assets)	Net Income Efficiency		Sales	

Source: adapted from previous studies

Table 3: Firm performance changes after equitization in Vietnam using with-without comparison methods (propensity score matching)

Author	Sample size	Privatization year	Measures	Significant increase in median values after privatization	Significant decrease in median values after privatization	No significant changes
Loc and Tran (2016)	301 equitized state-owned firms and 127 unequitized state-owned firms	2007-2010	Profitability (Income before tax on assets, Income before tax on sales, Income before tax on equity) Total asset turnover (Net sales/total assets) Labor productivity (Total sales/total employment) Debt ratio (Total debt/total assets) Number of employees	Income before tax on sales*	Total asset turnover (Net sales/total assets)** Income before tax on equity Labor productivity (Total sales/total employment) Debt ratio (Total debt/total assets) Number of employees	Income before tax on assets Income before tax on equity Labor productivity (Total sales/total employment) Debt ratio (Total debt/total assets) Number of employees
Hung et al. (2017)	Different sample sizes for measures	N/A	Market to book ratio Return on assets Return on equity Debt on equity Market capitalization	Return on equity* Debt on equity* Market capitalization ***		Market to book ratio Return on assets
Nhan and Son (2017)			Profitability (Return on Assets, Return on Equity, Return on Sales) Operating efficiency (Sales Efficiency, Net Income Efficiency) Output (Real Sales) Employment (Total Employment) Leverage (Debt to Assets)	Sales Efficiency Leverage*	Employment*	Profitability (Return on Assets, Return on Equity, Return on Sales) Net Income Efficiency Real Sales

Note: ***, **, and * denote significance levels of 1%, 5%, and 10% respectively.

Source: adapted from previous studies

Tran et al. (2015) examines the effects of privatization on firm performance of 309 privatized enterprises in Vietnam in 2009. This study uses new techniques to assess the effect of privatization on firm performance of privatized enterprises after privatization in Vietnam. They use with-without comparison method with a PSM technique (propensity score matching technique)¹. The authors use some common characteristics (control variables) between treatment group (privatized enterprises) and control group (non-privatized enterprises) and based on these common points, they compare

¹ According to Khandker, B. Koolwal, and Samad (2009), Propensity score matching (PSM) constructs a statistical comparison group that is based on a model of the probability of participating in the treatment, using observed characteristics. Participants are then matched on the basis of this probability, or propensity score, to nonparticipants. The average treatment effect of the program is then calculated as the mean difference in outcomes across these two groups.

propensity scores with control variables, including scale (the natural logarithm of labor) and the number of years of establishment. This technique helps to create similarities in comparing firm performance measures between privatized and non-privatized enterprises. According to Li (2013), PSM reconstructs counterfactual by adjusting covariates between the treated and control groups. Second, PSM can detect the lack of covariate distribution between two groups and adjust the distribution accordingly. After using PSM technique, Tran et al. (2015) uses the multiple regression analysis to assess the impact of privatization through DID estimator. The authors use different measures to be dependent variables, including ROE, ROA, SOLV (Solvency ratio or debt/total assets), TURN (Turnaround or sales/total assets), VAEMP² (Value added per employee). The results show that privatized firms perform better after privatization, especially in term of profitability. These results are consistent with the experimental results in the developed countries such as a study of Megginson et al. (1994). However, this research model considers only the effect of privatization on firm performance after privatization without considering macroeconomic factors or state ownership that may affect firm performance after privatization. In addition, the model only considers one privatization year and this does not reflect the privatization process. Furthermore, consideration of firm size and year of establishment is not reasonable in PSM technique because there are still biases when the author may compare privatized and non-privatized enterprises in different industries. .

Loc and Tran (2016) continue to assess the impact of equitization on firm performance after equitization in Vietnam using a with-without comparison method to comparing financial performance, performance 301 equitized firms and 127 non-equitized firms for the period 2007 to 2010. The authors use using propensity score matching (PSM) combined with difference in differences (DID) to identify differences in firm performance between equitized and non-equitized enterprises. Loc and Tran (2016) use the following measures, including profitability (Income before tax to total asset ratio, Income before tax to sales ratio, Income before tax to equity ratio), Total asset turnover (net sales/total assets), labor productivity (total sales/total employment), debt ratio (total debt/total assets) and total employment. The authors argue that post-equitization enterprises will receive tax incentives in the first year after equitization, so using ROA, ROE and ROS will not accurately reflect the firm performance after equitization. The results show that IBTA and IBTS measures increase after equitization, and there is a decline in debt ratio compared to non-equitized enterprises. In addition, the results show that the number of employees does not change much compared to non-equitized enterprises. The results of this study are quite consistent with those of La Porta and Lopez-de-Silanes (1999) and Harper (2002). Similar to the study by Tran et al. (2015), Loc and Tran (2016) consider firm size and year of establishment as control variables in PSM technique but it is not reasonable in this technique because there are still biases when the authors may compare privatized and non-privatized enterprises in different industries. In addition, the PSM-DID method also compare differences in financial and operating measures between equitized and non-equitized enterprises without considering the industry factor. Furthermore, the authors have not developed a regression model to assess the effect of equitization as well as the economic factors, ownership on performance of equitized enterprises after equitization.

Hung et al. (2017) study the impact of equitization on firm performance: Case in Vietnam. The authors use a with-without comparison method, but they compare firm performance between equitized enterprises and private enterprises. The research team use Student's T-test for differences in median and median values between the two groups. Hung et al. (2017) use measures such as market to book ratio (MTB), ROA, leverage and market capitalization. The authors also assess the effect of state ownership on firm value. Research results show that equitized firms have higher ROE, mainly due to the use of financial leverage than private enterprises because equitized enterprises have easy access to bank loan. There is no difference in market to book ratio and ROA between the two groups. This research has several limitations on methods and research objectives, specifically research objectives are to determine the impact of equitization on firm performance but the research content only include

² According to Tran, N. M., et al. (2015), Value added is defined sales minus purchases of goods and services

the comparison of performance measures between the equitized enterprises and private enterprises, not comparing between equitized enterprises and non-equitized SOEs to identify the impact of equitization. In addition, the research has not considered the firm size, industry of firm characteristics when comparing the measures. This topic examines the impact of equitization on firm performance but the research model focuses on the effect of state ownership on the market value of equitized enterprises.

Nhan and Son (2017) study whether equitization helps SOEs to be more efficient in terms of profitability, operating efficiency, output, employment and leverage after 2 years of equitization or not. The authors use five performance measures proposed by Megginson et al. (1994) and they do not use two measures, including dividends paid and capital investment due to data limitation in Vietnam. The authors use with-without comparison method through a combination of PSM and PSM-DID techniques which are similar to research methods apply by Loc and Tran (2016). This research uses Wilcoxon test to identify changes in mean and median values of measures but this study has not verified the proportion of enterprises with changes. This topic uses a sample of 156 equitized firms in the period of 2007-2011. However, this study argues that the combination of PSM and PSM-DID can neglect the effect of time on firm performance as enterprises develop over time and this help to removing the effect of macroeconomic factors on firm performance. This conclusion is likely wrong because the PSM method only compares propensity scores to match control and treatment groups and this technique can not eliminate the impact of time of macroeconomic factors on firm performance. It means that these factors are assumed to be constant at the time of comparison for PSM technique. In addition, the use of two control variables including firm size and establishment year to determine the propensity scores is not enough and can lead to wrong comparison like study by Loc and Tran (2016). In the PSM method, the authors only use the 0.01 radius comparison so that they do not fully utilize the advantages of this method. This is also a limitation of the study by Loc and Tran (2016). This research also doesn't develop a model to explain the direct impact of privatization and macroeconomic factors affecting firm performance after equitization.

Studies in Vietnam such as Loc et al. (2006), Tran et al. (2015), Loc and Tran (2016), Hung et al. (2017), Nhan and Son (2017) show that equitized enterprises have an increase in firm performance, especially profitability. This result is consistent with the results of studies in the developed and developing countries by Megginson et al. (1994), Boubakri and Cosset (1998), La Porta and Lopez-de-Silanes (1999), Dewenter and Malatesta (2001). However, studies by Carlin and Pham (2009), Pham (2017) suggest that post-privatized enterprises have a decline in profitability although there is an increase in working capital management, leverage because privatized enterprises want to increase capital. Thus, empirical studies in Vietnam also shows the inconsistency in performance of equitized enterprises after equitization which also needs to have specific answers when other studies apply new methods of techniques to assess the impact of equitization on firm performance after equitization.

6. The Research Results

Most previous studies do not use quantitative research to use specific measures of firm performance after privatization. Since Megginson et al. (1994) proposed a pre-post comparison method with a set of seven measures of firm performance, more empirical studies have focused on combining quantitative and qualitative research methodologies to explain the impact of privatization on performance of privatized enterprises, typically the study by Boubakri and Cosset (1998), La Porta and Lopez-de-Silanes (1999), D'Souza and Megginson (1999). Harper (2002), Boubakri et al. (2004), D'Souza et al. (2005) also use a multiple regression model to assess the effect of other factors on performance of privatized enterprises after privatization but these models do not mention the impact of privatization on performance of privatized enterprises after privatization.

Previous studies have not assessed the impact of privatization, macroeconomic factors and firm characteristics that may have a simultaneous effect on performance of privatized enterprises after privatization. Odle (1993) only proposes to use a stages theory approach to privatization. However,

there are certain limitations from this study because the author only proposes a new approach to explain privatization stages without evaluating the impact of privatization stage of firm performance.

Most of the international and Vietnamese studies use the term "privatization" instead of "equitization" as this term is commonly used in developed and developing countries. However, common characteristics of equitization in Vietnam and China show that state representatives still hold a number of shares after equitization and control over equitized enterprises in some cases. The term "equitization" is more widely used by Vietnamese Government. Therefore, this research topic uses the term "equitization" instead of "privatization" to unify the reality of this program in Vietnam. In terms of the nature, privatization and equitization are not different terms that can be used in academic research.

International studies and empirical studies in Vietnam only consider the impact of equitization on firm performance in a certain period, while equitization process in Vietnam is divided into three stages with different number of equitized firms and firm size. This may be the reason to explain why many empirical studies have inconsistent findings about the effect of equitization on firm performance of enterprises after equitization. In Vietnam, the first and the second stages of equitization mainly include small and medium-sized equitized enterprises and there are not many large state corporations in these periods. This is the reason why it is important to consider the equitization stage that may have effect on firm performance after equitization.

The limitation of the study by Carlin and Pham (2009) is that this study only considers the listing year is the base year of privatization for comparison, Carlin, TM and Carlin and Pham (2009), Pham (2017) only use absolute mean values without using more accurate statistical techniques to compare changes in performance of privatized enterprises after privatization. The studies by Loc and Tran (2016), Nhan and Son (2017) use the with-without comparison method with PSM technique using caliper or radius matching but the use of two control variables including firm size and establishment year to determine the propensity scores is not enough and can lead to wrong comparison. This is why the results are difficult to accurately compare measures between treatment and control groups. The study by Hung et al. (2017) only refers to the comparison of performance measures between equitized enterprise and private enterprise groups without comparing with the non-equitized SOEs to fully figure out the impact of equitization.

Previous research models have not examined the simultaneous impact of privatization, macroeconomic factors and ownership on firm performance after privatization. In particular, the model proposed by Tran et al. (2015) only introduces the impact of privatization policy on firm performance. Meanwhile, the study by Loc et al. (2006) doesn't include the effect of privatization on firm performance when developing the research model.

Studies in developing and developed countries use three different methods measuring the impact of privatization on firm performance. However, for some empirical studies using the same method, there is significant difference about the impact of privatization on firm performance. For example, studies by Carlin and Pham (2009), Pham (2017) suggest that post-privatized enterprises have a decline in profitability, but they use the same pre-post comparison method with previous studies in Vietnam, including studies by Loc et al. (2006), Tran et al. (2015), Loc and Tran (2016), Hung et al. (2017), Nhan and Son (2017). This raises one question whether privatization stage has an impact on firm performance or not. Empirical studies in Vietnam have not applied any theories explaining the impact of privatization program on firm performance.

Previous studies mostly combine pre-post comparison method and regression models to explain performance of privatized enterprises after privatization. Some empirical studies in Vietnam, typically the study by Loc and Tran (2016), Nhan and Son (2017) use with-without comparison method with a combination of PSM and PSM-DID techniques while previous studies only focus on the pre-post comparison method. Thus, future studies can employ other new methods to study the impact of equitization on performance of equitized enterprises. Most researchers in Vietnam mainly use Student's T test and Wilcoxon signed-rank test to test differences of measures. A new contribution of

the study by Tran et al. (2015) is that this author uses a regression model to assess the impact of privatization on performance of privatized enterprises in Vietnam. This model has many advantages because it includes the impact of privatization policy in the research model with a “pseudo” panel with a two “period” windows (pre- and post- privatization), but the limitation is that it does not take into account the impact of macroeconomic factors and the characteristics of enterprise or ownership on firm performance after privatization.

Empirical studies in Vietnam adapt models and research methods from international studies, typically research methods and measures proposed by Megginson et al. (1994). However, empirical studies in Vietnam develop regression models and apply some new techniques, such as PSM and PSM-DID. These studies also apply the with-without comparison method to compare performance between equitized enterprises and non equitized SOEs or even between equitized enterprises and private enterprises.

7. Summary and Concluding Remarks

After reviewing theories and empirical theories, concluding remarks can be summarized as follows:

- (1) There have been many empirical studies measuring the impact of privatization on firm performance. However, these studies have not used privatization theories to explain the roles of privatization. These studies mainly use three research methods, including pre-post comparison, with-without comparison and regression analysis. With-without comparison method can be considered as a new method because this can allow comparing firm performance between privatized SOEs and non privatized SOEs after privatization. However, previous studies use two control variables including firm size and establishment year to determine the propensity scores is not enough because they may compare between two firms in two different industries.
- (2) There should be regression model measuring the simultaneous impact of privatization and economic factors on firm performance after privatization. Previous studies only focus on the impact of privatization. However, other factors may impact on firm performance, such as corporate governance, microeconomic and macroeconomic factors.
- (3) Although this paper has represented many privatization theories which could be used to explain the impact of privatization on firm performance after privatization but these theories could only explain why privatization benefits privatized SOEs performance after privatization and these theories could not explain why there are still inconsistent empirical results in different studies. The inconsistent results may come from different data sets in different periods because most authors use the same methods but their results are different (see table 2 and table 3). Studies in Vietnam have also applied the same measures and method with those in developed and developing countries.
- (4) Odle (1993) proposes to use a stages theory approach to privatization but the author only proposes a new approach to explain privatization stages without evaluating the impact of privatization stage of firm performance. So, through this paper, the author suggest that there should be a new theory to explain why firm performance after privatization is different when going public in different stages of privatization. Because of inconsistent results, equitization progress in Vietnam is very slow when investors and SOEs are not sure about benefits of equitization program in Vietnam.
- (5) The impact of privatization on firm performance is still a debatable topic. However, further research should focus on new methods to evaluate this impact and further theories explaining the impact of privatization stage or privatization program characteristics on firm performance after privatization are necessary.

Having some important findings, this study is the first one to compare empirical studies in Vietnam about privatization impact and this research also applies privatization theories to explain this

impact. However, other theories or ownership issues may explain efficiency of firm performance after privatization and this is a new topic for further research.

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