NPO's Shareholding, Korean Chaebol, and Public Service Performance: An Empirical Evidence from South Korea

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ABSTRACT

The restrictions on the shareholding of nonprofit organizations (NPOs) vary from country to country. In South Korea, NPOs' shareholding is strictly restricted due to the chaebol's tax avoidance and the owner family's pursuit of self-interest. However, given their goal and role, the performance of NPOs' public services is critical. It is necessary for NPOs to hold shares to finance their public services and revitalise the donation culture. The purpose of this study is to examine the association of the regulations on NPOs' shareholding with the performance of NPOs' public services. The study collected the disclosed data of Korean NPOs and conducted multivariate and logistic regression analyses. The results show that the NPO groups holding 5% or more of shares in the same corporation and 10% or more had a significant and positive relationship with public service performance. Meanwhile, the NPO group holding more than 20% of shares in the same corporation had a significant but negative relationship with public service performance. This implies that South Korea needs to ease the restrictions on NPOs' shareholding to some extent for the sake of public service performance, just as the United States and Canada did. The contribution of this study is that it performed the first empirical investigation about the restrictions on NPOs' shareholding and public service performance in South Korea, providing a practical implication to the NPO-related supervisory authorities and policymakers about the shareholding regulations.

Keywords: Non-profit Organization; Shareholding; Chaebol; Public Service Performance.

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1. INTRODUCTION

As in other countries, the non-profit sector in South Korea is rapidly growing, and the role of NPOs[1] is becoming crucial to Korean society as the demand for various public services increases due to economic development. According to the National Tax Service (NTS) statistics, the number of NPOs increased by 47%, from 21,768 in 2015 to 31,981 in 2018. The GuideStar Korea also revealed that the total income of NPOs increased by 25% from

[1] The public service corporation is a sub-concept of the nonprofit organization in South Korea. The Korean Inheritance Tax and Gift Tax Act defines a nonprofit organization performing the public services listed in the law as a public service corporation and grants tax benefits to it. This study uses the nonprofit organization and the public service corporation interchangeably according to previous studies (Han et al., 2019) and research data.

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134 trillion Korean Won in 2015 to 167 trillion Korean Won in 2018, representing an increase from 8% to 8.8% of South Korea's GDP.

NPOs are established to perform public services such as education, public health, social welfare, and scholarship. They play a public role on behalf of the government, and, accordingly, the government actively supports them and grants tax benefits.

Like for-profit corporations, NPOs incur agency costs (Glaeser, 2003; Jegers, 2009; Harris et al., 2015). The chaebol, a unique governance structure in South Korea (Park et al., 2010), is characterised by a large gap between ownership and control because the owner with a minor stake dominates the entire corporate group through investments between affiliates (Kim et al., 2012). NPO managers have a motive to pursue their self-interests (Olson, 2000). Most Korean NPOs have a de facto owner and an incentive to pursue the founder's private interests because they are recognised as a private property of the founder (Jung, 2003). For example, Korean chaebols receive a significant gift tax exemption for large contributions when establishing NPOs (Lee and Choi, 2018). NPOs were used as a means of maintaining and strengthening the owner family's corporate control by contributing shares of affiliates to them or directing them to purchase stocks (Lee, 2016b).

The restrictions on NPO's shareholding vary from country to country. Unlike Japan, the United States, and Canada, the shareholding of Korean NPOs is strictly limited to up to 5% of voting stock, and taxes are imposed on an excess holding. A few years ago in South Korea, donating 18 billion Korean Won of the stock of Suwon Intersection Co., Ltd. to a university resulted in levying a tax of 22.5 billion Korean Won, which was more than the donation amount. The case provoked a controversy over whether a tax bomb could be imposed on bona fide donations and, accordingly, over the restrictions on NPO's shareholding in Korean society.

The arguments of previous studies on the restrictions on NPO's shareholding also vary. On the one hand, it is argued that the Korean chaebol's shareholding affects NPO's governance structure, deteriorates its value as a source of public services (Lee, 2010; Lee, 2016a), and is being used as a means of tax avoidance (Sin and Yoon, 2015). On the other hand, it is also argued that shareholding regulations need to be mitigated for NPOs to secure funds for the performance of public services smoothly (Kim, 2009; Kim and Roh, 2007) and to revitalise the donation culture (Kil, 2016; Kwak, 2015). However, few empirical studies have been conducted to support the arguments.

The performance of NPO's public services is of much importance, given their role and purpose of establishment. NPO accounting provides information on resource allocation and stewardship responsibility to carry out NPO's essential business (KASNPO[2] §5; Lee, 2002), and stakeholders, including donors, pay much attention to the NPO's public service performance (Cherny et al., 1992; Choi, 2013). Furthermore, the performance of NPO's public services has a significant impact on donations and grants, which are the primary resources for NPOs (Callen, 1994; Khanna and Sandler, 2000; Khanna et al., 1995; Marudas and Jacobs, 2004; Posnett and Sandler, 1989; Tinkelman, 1999).

The purpose of this study is to examine the impact of regulations on NPO's shareholding on their public service performance. To this end, the study collected the disclosed data of Korean NPOs and conducted multivariate and logistic regression analyses.

The results show that the NPO groups holding 5% or more of shares in the same corporation and holding 10% or more had a significant and positive relationship with their public service performance, providing a rationale for the argument that South Korea should

[2] Korean Accounting Standards for Not-for-profit Organizations (KASNPO).

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mitigate the regulation that strictly limits NPO's shareholding to 5% (Kang, 2017; Kim and Jun, 2012; Kim and Roh, 2007; Park et al., 2004). Lee (2015) argues that more emphasis should be put on public interest activities made possible by NPO's shareholding than regulation. On the other hand, the group holding more than 20% had a significant but negative relationship with public service performance. The United States and Canada allow NPOs to hold up to 20%, and Kim (2009) argues that the Korean NPO's shareholding should be expanded to 20%.

An additional analysis of the restrictions on NPO's shareholding that considered NPOs' dividend income sources and belonging to a chaebol also showed a result consistent with the main analysis results. Dividend income from NPO's shareholding can be a primary source to fund public service activities (Kim and Roh, 2007), and revenue diversification has a positive effect on public service performance in the nonprofit sector (Berrett and Holliday, 2018). Furthermore, Kim and Jun (2012) argue that it is necessary to distinguish NPOs belonging to chaebols from other general NPOs when regulating stock ownership. Meanwhile, another additional analysis conducted with small NPOs showed a positive relationship with public service performance for the group holding 5% or more and a negative relationship for the group holding more than 20%, albeit not statistically significant.

The contributions of this study are as follows. First, the previous studies about the restrictions on NPO's shareholding, which vary from country to country, are mostly legal interpretations or case studies. Given the importance of NPO's public service performance, the restrictions on NPO's shareholding should be examined along with NPO's public service performance. However, few studies have considered the relationship between the restrictions and public service performance. This study is significant as it is the first empirical study on the restrictions on NPO's shareholding and the public service performance in South Korea. Second, NPOs in the United States and Canada are allowed to hold up to 20%, while NPOs in Japan can hold up to 50%. In contrast, Korean NPOs are strictly limited to 5%. The results of this study, which showed a significant and positive relationship between the restrictions on NPO's shareholding and the performance of NPO's public services in the groups holding 5% or more of shares and 10% or more, provide a important implication for the NPO-related supervisory authorities and policymakers to mitigate the regulations on NPO's shareholding.

The remainder of this paper is structured as follows. The second section derives a research hypothesis from previous studies, and the third section describes samples and research models to test the hypothesis. Then, the fourth section shows the results of empirical analyses, and the final section presents the conclusion of this study and discusses its contributions and limitations.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Significance of the NPO

NPOs carry out projects that contribute to the public interests of society, such as education, public health, social welfare, and scholarship; they are conceptually different from for-profit organizations born to pursue the wealth of shareholders or the profit of corporations. According to Salamon (1999), they are defined and characterised by such terms as private (a concept contrasted to the government sector), nonprofit-distribution, self-governing, voluntary, and public benefit.

The Financial Accounting Standards Board (FASB) separates NPOs from for-profit

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organizations by the following characteristics[3]:

1. They receive contributions from significant resource providers who do not expect a commensurate or proportionate monetary return.
2. They operate for purposes other than to make a profit.
3. There is an absence of ownership interests like those of business enterprises.

As such, various support and tax benefits are granted to NPOs at the national level to activate their public services because they are performing tasks that the state or public institutions should perform.

2.2 Korean Chaebol and NPO

The chaebol is a large family-owned business conglomerate, a unique corporate governance structure in South Korea (Park et al., 2010), and is an efficient economic organization to reduce risks and transaction costs through internal markets in imperfect, emerging markets (Chang and Shin, 2005; Khanna and Palepu, 1997). The chaebol has played a crucial role in the growth of the Korean economy and occupies a large proportion of the Korean economy (Kang and Kim, 2017). However, the collective management method employed by Korean chaebols was pointed out as the cause of the Korean currency crisis (Park et al., 2010), having many side effects like concentrated economic power and inhibited market economy.

Meanwhile, like for-profit corporations, NPOs incur agency costs (Glaeser, 2003; Harris et al., 2015; Jegers, 2009). During the formation of Korean chaebols, the owner with a minor stake dominates the entire corporate group through investments between affiliates, resulting in a large gap between ownership and control (Kim et al., 2012). Most Korean NPOs have a de facto owner, and there is an incentive to pursue the founder's private interests by recognising themselves as the founder's private property (Jung, 2003). A chaebol's obligation to give back to society must be high because it receives a significant gift tax exemption due to its large contributions when establishing NPOs (Lee and Choi, 2018). However, chaebols have often pursued the owner family's private interests by establishing NPOs to contribute affiliates' stocks or having NPOs purchase affiliates' stocks.

2.3 NPO and Shareholding Restrictions

The restrictions or regulations on NPO's shareholding vary from country to country. The United States limits the shareholding to 20% of voting stock if a private foundation holds shares and 35% if a third party already has corporate control[4]. In case of violating the shareholding restrictions, a 10% penalty is imposed on the value of such holdings. If the excess holdings are not resolved, then a 200% penalty is imposed on the excess holdings[5].

Canada grants tax incentives on capital gains of listed stocks donated to private foundations, but the foundations are obligated to report it to Canada Revenue Agency(CRA) if holding greater than 2% and required to dispose of excess holdings beyond 20%[6]. If excess holdings are not disposed of within the deadline, a 5% penalty is imposed on the excess holdings. The penalty rate is doubled after five years.

In Japan, holding 50% of shares in the same corporation is allowed when a public

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[3] Larkin, R.F. and DiTommaso, M. (2015). Wiley Not-for-profit GAAP 2015: Interpretation and Application of Generally Accepted Accounting Principles. John Wiley & Sons. 3p.

[4] IRC §4943 (c).

[5] IRC §4943 (a), (b)

[6] Carters Professional Corporation, Charity Law Bulletin no.113, 2007.

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interest incorporated foundation manages the operational property, and the share is donated as basic property to it[7]. Furthermore, it is mandatory to include the company and stock acquisition information in the business report when it holds more than 20%. Meanwhile, the United Kingdom, Australia, and Taiwan do not restrict NPO's shareholding (Kim, 2009).

Initially, South Korea had no restrictions on the contributions to NPOs and NPO's shareholding. However, witnessing cases in which Korean chaebols established NPOs to control affiliates or avoid the tax burden, the Korean government began to restrict NPO's acquisition and holding of shares. Currently, Korean NPOs are strictly limited to holding up to 5% of voting stock[8]. If this is violated, taxes are imposed on the excess holdings. However, holding 10% is exceptionally allowed if an NPO is considered a Conscientious Public Service Corporation by satisfying specific requirements of the tax law like transparent operation and accounting treatment and execution of disclosure obligations[9], and 20% if an NPO is not related to a chaebol and not exercising a voting right of the holdings, and its business is charity, scholarship, or social welfare. However, it is difficult for most small NPOs in South Korea to meet such tax law requirements, and so there are many restrictions on their holding shares over the 5% standard (Kang, 2017).

As discussed above, Korean NPOs are strictly restricted in acquiring and holding stocks compared to 50% in Japan and 20% in the US and Canada. This is closely related to chaebols, and the socio-economic problem entailed in chaebol's ownership or governance structure is greater when compared to other countries (Kim, 2009). Unlike for-profit corporations, NPOs do not have shareholders, but in South Korea, familism and nepotism made it possible to control subsidiaries through NPOs belonging to chaebols (Jung, 2003). For example, Kumho Group, one of the chaebols in South Korea, established a cultural foundation and used it to maintain and strengthen the owner family's corporate group control by contributing shares of affiliates to it or directing it to purchase stocks (Lee, 2016b).

2.4 Hypothesis

A review of previous studies about the restrictions on NPO's shareholding is divided into two contrasting arguments; one that the restrictions should be strengthened and the other that it should be mitigated. Lee (2010) analysed the stock holdings and income structure of affiliates by NPOs belonging to chaebols and reported that their holdings had a great influence on the governance structure of chaebols and that they were also of low value as a financial resource for performing public services. Sin and Yoon (2015) compared and analysed the financial data of NPOs established by chaebols and other excellent NPOs and argued that they were appropriated as a means of tax avoidance rather than actively performing the original public service with a essential purpose of establishment. After analysing the stock holdings of affiliates, assets, and income structures of the NPOs established by chaebols, Lee (2016a) insisted on reinforcing the shareholding restrictions.

On the contrary, Kim and Roh (2007) argue that given financing is necessary to perform public service, NPOs holding stocks can obtain dividend income to smoothly financing public services. Kim and Jun (2012) argue that the current NPO's 5% shareholding restrictions should be mitigated, and Kim (2009) insisted on expanding it to 20% to revitalise the donation culture and secure stable financing. Park et al. (2004) argue that all restrictions on NPO's shareholding should be abolished and that only 1% of the holdings should be

[7] Act on Authorization of Public Interest Incorporated Associations and Public Interest Incorporated Foundations §5.
[8] Korean Inheritance Tax and Gift Tax Act §48.
[9] Korean Inheritance Tax and Gift Tax Act §16.

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allowed for a voting right to separate the contribution to NPOs from the management.

In summary, the former argues that the regulations on NPO's shareholding should be strengthened to prevent chaebols from becoming a holding company through NPO and the owner family's management rights from being inherited expediently. The latter claims that the restrictions should be mitigated for the sake of revitalising the donation culture (Kil, 2016; Kwak, 2015) and financing NPO's public services and suggests limiting voting rights for the holdings to minimize side effects (Kang, 2017; Park et al., 2004; Yoon, 2008), excluding NPO's affiliated persons from the appointment of executives (Kim and Roh, 2007), or enhancing transparency about NPO (Kim, 2009). Meanwhile, there is another argument that the restrictions on NPO's shareholding should be mitigated only for small and medium-sized NPOs because the restrictions on NPO's shareholding are related to chaebols (Kang, 2017; Kim and Jun, 2012).

While for-profit corporations consider profit-related financial information as important, NPO accounting should be centered on providing information on resource allocation and stewardship responsibility to carry out public services with a essential business (KASNPO §5; Lee, 2002). Donors and other NPO volunteers are interested in information on the performance of public services, that is, services provided by the NPO to check whether their donations are being appropriately used for their original purpose (Cherny et al., 1992; Choi, 2013). In the case of Korean chaebols, they can establish an NPO to fulfill corporate social responsibility (CSR) for sustainable growth and operate it to perform public services (Kwak, 2015). Furthermore, since the purpose of establishing an NPO is to contribute to the public interests of society, the shareholding regulations need to focus more on whether NPOs carry out public interest activities as intended (Lee, 2015), and it is necessary to continuously and professionally confirm this (Park et al. al., 2004). Therefore, it is critical to look at the shareholding restrictions from the viewpoint of how well general NPOs as well as chaebol-affiliated NPOs are performing public services.

However, despite the importance of NPO's public service performance, most studies on the restrictions on NPO's shareholding have been conducted in the form of legal interpretations or case studies, and few studies have dealt with the performance of NPO's public services. Therefore, this study examines the regulations on NPO's shareholding and the performance of NPO's public services and establishes the following null hypothesis according to conflicting previous studies on the regulations on NPO's shareholding.

H: The regulations on NPO's shareholding will not affect the NPO's public service performance.

3. RESEARCH DESIGN

3.1 Sample Selection

The study collected and used publicly disclosed data on Korean NPOs to test the hypothesis. Korean NPOs with a total asset of 500 million Korean Won or more or with a total income and contributions of 300 million Korean Won or more are obligated to disclose settlement documents to the NTS's disclosure system from 2008[10].

This study collected the disclosed data on NPOs performing public services for

[10] Korean Inheritance Tax and Gift Tax Act §50.

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academic and scholarship in South Korea in 2015 using GuideStar Korea[11] and the NTS' disclosure system. Table 1 shows the Sample Selection in this study. In 2015, a total of 2,373 NPOs were performing public services for academic and scholarship. Among them, 316 NPOs were selected as the study sample for data analysis, excluding 153 NPOs with undisclosed financial statements in 2015, 1,880 NPOs without stock ownership and with undisclosed stock holdings, and 24 NPOs related to industry-academia cooperation allowed for stock ownership under the tax law[12].

TABLE 1. SAMPLE SELECTION

Criteria	Sample Size
Total Sample	2,373
Less NPOs with undisclosed financial statements	(153)
Less NPOs that do not hold stocks and whose stockholding details are not disclosed	(1,880)
Less NPOs related to industry-academia cooperation	(24)
Final Sample	316

3.2 Public Service Performance

Since the purpose of the NPO has nothing to do with the pursuit of profit, the resources and performance evaluation are fundamentally different from those of for-profit corporations (Bahn and Kim, 2007; Choi, 2013). While for-profit corporations provide financial information from the perspective of investors and creditors, the stakeholders of NPOs are interested in information on resource allocation and stewardship responsibility to perform public services (Lee, 2002).

KASNPO, established in 2017, explains this well: "The nonprofit organization accounting should provide useful information for decision-making of donors, members, creditors, and grantors so that these stakeholders can evaluate the services provided by the nonprofit organization and the likelihood of continuing to provide these services" (KASNPO §5).

It is crucial for a for-profit corporation to produce a single performance indicator (net income) by measuring performance. On the other hand, the information on service efforts and accomplishments of activities for essential business is important for a NPO[13]. In particular, NPOs spend business expenses while providing programs or services to perform public services. The program ratio, the ratio of public service expenses to total expenses, was widely used in previous studies as a performance variable of NPOs (Baber et al., 2001; Frumkin and Kim, 2001; Greenlee and Trussel, 2000; Jacobs and Marudas, 2009; Park et al., 2014; Tinkelman, 1999; Tinkelman and Mankaney, 2007; Trussel, 2003). Furthermore, the Charity Navigator, a private evaluation organization of the US NPO, uses the program ratio to measure financial performance and operational evaluation.

Donor groups are interested in the management status of their resources and the

[11] Since 2015, GuideStar Korea has been providing NPO information based on publicly disclosed data from the National Tax Service.

[12] Korean Inheritance Tax and Gift Tax Act §48.

[13] Commentary on Korean Accounting Standards for Not-for-profit Organizations. 2017. Korea Accounting Institute. 38p.

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services that NPOs actually provide (Cherny et al., 1992; Greenlee and Brown, 1999; Parsons, 2003), which can be identified through the program ratio. Furthermore, the program ratio has a significant impact on donations, an important resource for NPOs (Callen, 1994; Khanna et al., 1995; Marudas and Jacobs, 2004; Posnett and Sandler, 1989; Tinkelman, 1999).

According to the US tax law[14], private foundations have set a minimum amount to use 5% of the invested assets for public services. This US tax standard was used in previous studies as a performance variable of NPOs. Kim and Choi (2014) used it as a performance indicator in a study on expenditures of Korean NPOs providing scholarship services, and Kim (2015) studied the financial characteristics of US scholarships.

3.3 Hypotheses Testing Model

The estimated empirical model in this study is designed to evaluate the relationship between the regulations on NPO's shareholding and the performance of NPO's public services:

$$NPOPER_{i\cdot t} = \beta_0 + \beta_1 SEC5_{i\cdot t} + \beta_2 SEC10_{i\cdot t} + \beta_3 SEC20_{i\cdot t} + \sum \beta_k CONTROLs_{i\cdot t} + \varepsilon_{i\cdot t}$$

where i = nonprofit organization, t = fiscal year.

The main independent variables of interest in this study are those related to the restrictions on NPO's shareholding, and SEC5, SEC10, and SEC20 are used according to tax regulations (Korea, the United States, Canada) and prior research. In Korean tax law, NPOs are allowed to hold only 5% of voting stock, and previous studies support this regulation based on the cases of the NPO's misuse of shareholding (Lee, 2010; Lee, 2016a). On the other hand, there is also an argument that the 5% ownership restriction should be mitigated to revitalise the donation culture and secure stable financing for NPOs (Kim and Jun, 2012). Meanwhile, South Korea allows NPOs to hold up to 10% if specific legal requirements are met (Conscientious Public Service Corporations), and the United States and Canada allow NPOs to hold up to 20%; the previous studies in South Korea support this for the activation of NPOs (Kim, 2009; Lee, 2015).

NPOPER is a dependent variable representing public service performance, and PSR1, PSR2, USTAX, and PRSCORE are used according to the previous research; PSR1 is the ratio of public service expenses divided by total expenses (Baber et al., 2001; Bhattacharya and Tinkelman, 2009; Harris et al., 2015; Okten and Weisbrod, 2000; Tinkelman and Mankaney, 2007); PSR2 is the ratio of (public service expenses minus administrative and fundraising expenses) divided by total expenses (Sin and Yoon, 2015); USTAX is the ratio of public service expenses divided by investment assets, and US tax law requires it to exceed 5%; and PSSCORE is a variable measured by dividing the ratio of public service expenses divided by total revenues (Kirk and Nolan, 2010; Choi, 2013) [15] and PSR2 into quartile groups and then scaling these groups and USTAX between 0-1, respectively.

The empirical model includes ASSET, REV, GOVERN, and GRANT variables to control the influence of other factors on the NPO's public service performance. ASSET and REV are variables that take the natural logarithm of each of the NPO's total assets and total revenues. NPOs with a large asset size mean that they have a large number of donated assets,

[14] IRC §4942 (e).

[15] Kirk and Nolan (2010) and Choi (2013) used the ratio of administrative expenses divided by total revenues as an indicator of NPO's performance, and this study adapted it to set research variables.

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and they must more actively carry out public interest activities with such large funds (Lee and Choi, 2018); the scale of revenues also affects public service expenditures.

NPOs can also face an agency problem (Glaeser, 2003; Harris et al., 2015; Jegers, 2009). Since NPOs do not have owners and do not distribute profits to their members, their managers may have a motive to pursue their self-interests (Olson, 2000), which may affect the public service performance of NPOs (Harris et al., 2015). In South Korea, there are incentives to pursue the private interests of the founder, including individuals and families, due to the influence of familism, nepotism, and collectivism (Jung, 2003). Taking this into account, GOVERN is included as a control variable of governance structure. Grants are the primary source of funding for NPOs, and GRANT is set as a control variable to consider the role of grantors to monitor the public service activities of NPOs (Khanna and Sandler, 2000).

4. RESULTS

4.1 Descriptive Statistics

Table 2 provides a summary of the descriptive statistics for main variables in this study. PSR1 has an average of about 0.822, meaning that the NPOs in the research sample use an average of 82.2% of their total expenses for public services, which indicates the financial characteristics of NPOs (Choi, 2013). GuideStar Korea's GSK1.0 (2015)[16] assigns the highest score if PSR1 is 0.9 or higher when evaluating the NPO's efficiency indicator. USTAX averaged about 0.34, with 108 NPOs in the sample meeting the public service standard required by U.S. tax laws. SEC5 averaged about 0.46, indicating that 148 out of the 316 NPOs in the sample owned stocks with more than 5%. In addition, the average of SEC20 was 0.16, showing 51 NPOs in the sample exceeded the US and Canadian shareholding restrictions (20%). Meanwhile, NPOs whose founders are national government agencies, local governments, and local communities accounted for 10.1% of the total sample (n=32).

4.2 Correlation Analysis

Table 3 presents the results of analysing correlations between main variables. SEC5 shows a positive correlation with PSR1 and PSR2, but the coefficients are not statistically significant. SEC5 and SEC10 show a significant and positive correlation with USTAX and PRSCORE, while SEC20 shows a significant and negative correlation with PSR2. Meanwhile, ASSET shows a significant and negative correlation with PSR1, PSR2, and PRSCORE. GOVERN shows a significant and positive correlation with USTAX and PRSCORE; and GRANT shows the same result.

[16] http://www.guidestar.or.kr/guide/gskindex_layout.asp.

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TABLE 2. DESCRIPTIVE STATISTICS

Variable	Mean	Std. Dev.	Q1	Median	Q3
PSR1	0.8218	0.296	0.7239	1	1
PSR2	0.7201	0.3281	0.4955	0.8593	0.9976
USTAX	0.3418	0.4751	0	0	1
PRSCORE	1.6003	0.6941	1	1.5	2
SEC5	0.4684	0.4998	0	0	1
SEC10	0.269	0.4441	0	0	1
SEC20	0.1614	0.3685	0	0	0
ASSET	15.934	1.6854	14.7016	15.5463	16.9504
REV	13.0153	2.5873	11.4882	12.6597	14.3243
GOVERN	0.1013	0.3022	0	0	0
GRANT	0.0094	0.0636	0	0	0

1) This table shows the descriptive statistics of the variables used in our analyses.
2) See Appendix A for variable definitions.

4.3 Main Results

Table 4 presents the results of multivariate and logistic regression analyses to test the hypothesis. SEC5 turned out to have a significant and positive relationship with PSR1 and PSR2 at the 5%-10% significance level. SEC10 had a significant and positive relationship with USTAX and PRSCORE at the 5% significance level. Meanwhile, SEC20 had a significant but negative association with all public service performance variables at the 1%-10% significance level. The governance variable GOVERN turned out to have a significant and positive relationship with PSR1 and USTAX at the 10% level and PRSCORE at the 1% level[17].

The results show that the NPO groups holding 5% or more and 10% or more performed their public services better. South Korea strictly regulates NPOs' shareholding at 5%, and many previous studies argue that this regulation should be mitigated (Kang, 2017; Kim and Jun, 2012; Park et al., 2004; Yoon, 2008). Kim (2009) argues that NPO's shareholding should be expanded to 20%. These results imply that South Korea needs to loosen the restrictions on NPO's shareholding to some extent, like in the US and Canadian regulations, considering the NPO's public service performance.

[17] Although not shown in the table, the study was conducted by adding interaction variables (GOVERN x SEC) to the research model to examine the moderating effect of governance on performance in the SEC. As a result of the study, some performance variables in SEC10 showed a significant positive relationship and SEC20 showed a significant negative relationship to all performance variables, but the interaction variables were not statistically significant.

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TABLE 3. CORRELATION MATRIX

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1)PSR1	1										
(2)PSR2	0.81256	1									
	<.0001										
(3)USTAX	0.16539	0.11343	1								
	0.0035	0.046									
(4)PRSCORE	0.60446	0.61304	0.76066	1							
	<.0001	<.0001	<.0001								
(5)SEC5	0.08298	0.05363	0.09918	0.10016	1						
	0.145	0.3467	0.0783	0.0788							
(6)SEC10	-0.00985	-0.03429	0.1497	0.09808	0.64629	1					
	0.8629	0.5475	0.0077	0.0852	<.0001						
(7)SEC20	-0.08233	-0.11944	0.0466	-0.0363	0.4674	0.7232	1				
	0.1481	0.0356	0.409	0.525	<.0001	<.0001					
(8)ASSET	-0.17846	-0.19857	0.04281	-0.14626	0.11832	0.15977	0.18455	1			
	0.0016	0.0004	0.4483	0.01	0.0355	0.0044	0.001				
(9)REV	-0.23282	-0.19867	0.36428	0.02435	0.08427	0.13069	0.11637	0.78658	1		
	<.0001	0.0004	<.0001	0.6699	0.135	0.0201	0.0387	<.0001			
(10)GOVERN	-0.02441	-0.0695	0.26679	0.16546	0.08435	0.15122	0.1949	0.35574	0.43297	1	
	0.6685	0.2224	<.0001	0.0035	0.1346	0.0071	0.0005	<.0001	<.0001		
(11)GRANT	0.006	-0.00707	0.11511	0.09633	-0.10439	-0.05097	-0.01971	0.00343	0.05307	0.16894	1
	0.9164	0.9015	0.0412	0.091	0.0642	0.3672	0.7275	0.9516	0.3478	0.0026	

1) This table shows Pearson correlation coefficients with p-values below.
2) See Appendix A for variable definitions.

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TABLE 4. NPO'S SHAREHOLDING RESTRICTION AND PUBLIC SERVICE PERFORMANCE

Dep.var.	(1) OLS PSR1	(2) OLS PSR2	(3) Logit USTAX	(4) OLS PRSCORE
Intercept	1.16***	1.196***	-5.036***	3.336***
	(6.74)	(6.31)	(33.85)	(8.54)
SEC5	0.09**	0.085*	0.109	0.121
	(2.11)	(1.8)	(0.1)	(1.25)
SEC10	0.02	0.035	1.022**	0.303**
	(0.33)	(0.52)	(4.71)	(2.19)
SEC20	-0.126*	-0.146**	-1.15**	-0.396***
	(-1.94)	(-2.03)	(-5.12)	(-2.69)
ASSET	0.007	-0.005		-0.181***
	(0.43)	(-0.27)		(-4.93)
REV	-0.037***	-0.033**	0.31***	0.079***
	(-3.24)	(-2.59)	(22.84)	(3.01)
GOVERN	0.115*	0.07	0.867*	0.444***
	(1.82)	(1.00)	(3.19)	(3.09)
GRANT	0.075	0.035	3.393	0.735
	(0.29)	(0.12)	(2.28)	(1.24)
Pseudo(Adj) R^2	0.0676	0.0651	0.169	0.1248
Observations	309	309	315	309

1) ***, ** and * denote statistical significance at 1%, 5%, and 10% level, respectively.
2) See Appendix A for variable definitions.

4.4 Supplemental Analyses

4.4.1 Dividend and Public Service Performance

The continuous inflow of external resources is necessary for NPOs to perform public services. Like for-profit corporations, diversification of revenue structure plays a vital role for NPO's fiscal soundness (Tuckman and Chang, 1991) and positively affects NPO's public service performance (Berrett and Holliday, 2018). NPOs holding shares can earn dividend income to use as a substantial financial resource to fund their public services (Kim and Roh, 2007).

Table 5 presents NPO's public service performance considering dividend income from shareholding. Panel A is the result of multivariate regression and logistic regression analyses with the DIVR variable included in the model, which is the ratio of dividend income to total income. SEC5 had a significant and positive relationship with PSR1 at the 10% significance level, and SEC10 had a significant and positive relationship with USTAX and PRSCORE at the 5% significance level. DIVR had a significant and positive relationship with PSR2 at the 5% significance level. Meanwhile, SEC20 had a significant but negative association with all public service performance variables at the 5%-10% level. These results are similar to those of

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the main analysis presented earlier. Panel B is the result of analysing the top 50% of DIVR samples. SEC10 had a significant and positive relationship with USTAX and PRSCORE at the 1% and 10% significance levels, respectively, while SEC20 turned out to have a significant but negative relationship with PSR1, USTAX, and PRSCORE at the 5%-10% significance level. The results show the necessity to mitigate the restrictions on NPO's shareholding to some extent, considering the financing through dividend income as well as the performance of NPO's public services.

TABLE 5. NPO'S SHAREHOLDING RESTRICTION, DIVIDEND, AND PUBLIC SERVICE PERFORMANCE

[Panel A] Additional Variable: DIVR

	(1)	(2)	(3)	(4)
Dep.var.	**OLS**	**OLS**	**Logit**	**OLS**
	PSR1	**PSR2**	**USTAX**	**PRSCORE**
Intercept	1.169***	1.221***	-4.927***	3.357***
	(6.79)	(6.48)	(32.2)	(8.58)
SEC5	0.084*	0.071	0.169	0.108
	(1.97)	(1.5)	(0.23)	(1.11)
SEC10	0.02	0.034	1.032**	0.302**
	(0.32)	(0.51)	(4.78)	(2.18)
SEC20	-0.119*	-0.128*	-1.218**	-0.381**
	(-1.82)	(-1.79)	(-5.65)	(-2.57)
DIVR	0.06	0.149**	-0.589	0.129
	(1.03)	(2.32)	(-1.41)	(0.96)
ASSET	0.005	-0.01		-0.186***
	(0.29)	(-0.58)		(-5.02)
REV	-0.036***	-0.03**	0.309***	0.081***
	(-3.12)	(-2.35)	(22.65)	(3.1)
GOVERN	0.126*	0.096	0.775	0.466***
	(1.96)	(1.36)	(2.48)	(3.21)
GRANT	0.083	0.055	3.271	0.752
	(0.32)	(0.19)	(2.13)	(1.27)
Pseudo(Adj) R^2	0.0677	0.0785	0.1729	0.1246
Observations	309	309	315	309

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[Panel B] DIVR Top 50% Group

	(1)	(2)	(3)	(4)
Dep.var.	OLS	OLS	Logit	OLS
	PSR1	PSR2	USTAX	PRSCORE
Intercept	1.208***	1.134***	-4.906***	3.33***
	(4.62)	(4.11)	(10.46)	(5.81)
SEC5	0.056	0.067	-0.404	0.045
	(0.87)	(0.98)	(0.52)	(0.31)
SEC10	0.068	0.048	1.868***	0.369*
	(0.72)	(0.49)	(6.86)	(1.79)
SEC20	-0.191*	-0.167	-1.246*	-0.492**
	(-1.93)	(-1.6)	(-2.99)	(-2.27)
ASSET	0.025	0.01		-0.207***
	(1.00)	(0.36)		(-3.73)
REV	-0.065***	-0.047**	0.281**	0.106**
	(-3.00)	(-2.04)	(6.47)	(2.21)
GOVERN	0.26*	0.068	0.733*	0.629**
	(1.84)	(0.45)	(0.46)	(2.03)
GRANT	-0.336	-0.03	1.22	-0.144
	(-0.69)	(-0.06)	(0.12)	(-0.13)
Pseudo(Adj) R^2	0.0661	0.0349	0.1267	0.1144
Observations	156	156	158	156

1) ***, ** and * denote statistical significance at 1%, 5%, and 10% level, respectively.
2) See Appendix A for variable definitions.

4.4.2 NPO affiliated with Chaebol and Public Service Performance

The strict restrictions on NPO's shareholding in South Korea are related to chaebols (Kang, 2017; Kim, 2009; Lee, 2010; Lee, 2016a), and Kim and Jun (2012) suggest differentiating the regulations on shareholding between NPOs established by chaebols and other general NPOs.

Table 6 presents the result of an analysis excluding chaebol-affiliated NPOs. SEC5 turned out to have a significant and positive relationship with PSR1 at the 5% significance level, and SEC10 had a significant and positive relationship with USTAX and PRSCORE at the 10% significance level. Meanwhile, SEC20 had a significant but negative association with all public service performance variables at the 5% significance level. The result is similar to those of the main analysis. The result of another analysis with a dummy variable of being NPOs belong to chaebols in the model is not presented here, but it is also similar to that shown in Table 6.

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TABLE 6. NPO AFFILIATED WITH CHAEBOL AND PUBLIC SERVICE PERFORMANCE

Dep.var.	(1) OLS PSR1	(2) OLS PSR2	(3) Logit USTAX	(4) OLS PRSCORE
Intercept	1.065***	1.149***	-6.038***	3.127***
	(5.92)	(5.71)	(37.28)	(7.45)
SEC5	0.077**	0.077	-0.007	0.098
	(1.8)	(1.61)	(0)	(0.98)
SEC10	0.03	0.043	0.849*	0.261*
	(0.5)	(0.62)	(2.97)	(1.83)
SEC20	-0.15**	-0.173**	-1.154**	-0.389**
	(-2.28)	(-2.34)	(-4.43)	(-2.53)
ASSET	0.013	-0.000[18]		-0.17***
	(0.81)	(-0)		(-4.4)
REV	-0.037***	-0.035***	0.401***	0.083***
	(-3.15)	(-2.65)	(27.48)	(3.03)
GOVERN	0.102	0.076	0.624	0.403***
	(1.59)	(1.05)	(1.48)	(2.69)
GRANT	0.066	0.03	3.228	0.698
	(0.26)	(0.11)	(2.01)	(1.17)
Pseudo(Adj) R^2	0.0534	0.0601	0.1945	0.1035
Observations	286	286	292	286

1) ***, ** and * denote statistical significance at 1%, 5%, and 10% level, respectively.
2) See Appendix A for variable definitions.

4.4.3 Small NPO and Public Service Performance

Unlike large NPOs, small NPOs may have difficulty financing their public services, proposing a need to ease the regulations on shareholding for their smooth operation (Kang, 2017). TABLE 7 shows the result of analysing the public service performance of small NPOs holding stocks. For the analysis, the entire sample was divided into three quartiles according to the asset size, and subgroups were entered into the model. SEC5 turned out to have a significant and positive relationship with PSR1, USTAX, and PRSCORE at the 5%-10% significance level. SEC20 had a negative association with major public service performance variables, but the relationship was not statistically significant, unlike the main analysis results.

[18] -0.0000023

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TABLE 7. SMALL NPO AND PUBLIC SERVICE PERFORMANCE

	(1)	(2)	(3)	(4)
Dep.var.	**OLS**	**OLS**	**Logit**	**OLS**
	PSR1	**PSR2**	**USTAX**	**PRSCORE**
Intercept	1.436***	1.459***	-15.19***	1.314***
	(8.04)	(6.73)	(21.3)	(2.64)
SEC5	0.11*	0.082	1.033*	0.323**
	(1.87)	(1.14)	(2.72)	(1.96)
SEC10	-0.047	-0.042	-0.203	0.013
	(-0.54)	(-0.4)	(0.06)	(0.06)
SEC20	-0.075	-0.109	-0.589	-0.217
	(-0.74)	(-0.88)	(-0.29)	(-0.76)
REV	-0.051***	-0.06***	1.26***	0.032
	(-3.26)	(-3.13)	(19.94)	(0.72)
GOVERN	-0.594**	-0.488	8.145	-0.325
	(-2.43)	(-1.65)	(0)	(-0.48)
GRANT	0.045	-0.033	2.025	0.593
	(0.17)	(0.1)	(0.48)	(0.8)
Pseudo(Adj) R^2	0.186	0.1229	0.3204	0.0046
Observations	102	102	104	102

1) ***, ** and * denote statistical significance at 1%, 5%, and 10% level, respectively.
2) See Appendix A for variable definitions.

5. CONCLUSION

Social interests in NPOs are increasing, and so are their role and importance. As NPOs play a public role, the government is also actively supporting them. The restrictions on NPO's shareholding vary from country to country, and the regulations in South Korea are stringent. Since NPOs are established to contribute to society's public interests, the restrictions on their shareholding need to be examined from the viewpoint of public service performance.

This study empirically analysed the association of the regulations on NPO's shareholding with the performance of NPO's public services. The results show that the NPO groups holding 5% or more and 10% or more have a significant and positive relationship with their public service performance. The results support the argument that South Korea, where NPO's shareholding is strictly limited to 5%, should mitigate the regulations (Kang, 2017; Kim and Jun, 2012; Kim and Roh, 2007; Park et al., 2004). Meanwhile, the group holding more than 20% has a significant but negative relationship with their public service performance. The United States and Canada allow NPO' shareholding up to 20%, and Kim (2009) argues that NPO's shareholding should be expanded to 20%.

An additional analysis that considers dividend income and NPO's affiliation with chaebols reveals the same results as the main analysis. Another analysis with small NPOs shows that the NPO group holding more than 20% has a negative relationship with public service performance, but the relationship is not statistically significant.

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The limitations of this study are as follows. First, this study was conducted on NPOs engaged in academic and scholarship services. Therefore, it would be hard to apply the findings to NPOs that perform other public services such as social welfare, medical care, and education; more extensive research is needed by securing data to represent various types of public services in the future. Second, this study suggested public service performance variables based on previous studies, but there is a possibility of measurement errors due to the characteristics of NPOs. In the future, more detailed research is needed on measuring NPO's performance to increase the validity of the model.

The contributions of this study are as follows. First, previous studies on the restrictions on NPO's shareholding were mostly legal interpretations or case studies. This study has significance as the first empirical study about the restrictions on NPO's shareholding and the performance of NPO's public services in South Korea. Second, unlike the United States and Canada, South Korea strictly regulates NPO' shareholding. However, the results of this study, which showed a positive effect of the NPO groups with excess holdings on the performance of NPO's public services, provide a practical implication for the NPO-related supervisory authorities and policymakers to mitigate the regulations on NPO's shareholding.

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Appendix A: Variable Definitions

Variable	Definition
SEC5	An indicator that equals 1 if an organization holds more than 5% of shares in the same corporation; otherwise 0.
SEC10	An indicator that equals 1 if an organization holds more than 10% of shares in the same corporation; otherwise 0.
SEC20	An indicator that equals 1 if an organization holds more than 20% of shares in the same corporation; otherwise 0.
PSR1	Public service expenses [Service expenses used for essential business (i.e. academy·scholarship)] divided by total expenses.
PSR2	(Public service expenses - administrative and fundraising expenses) divided by total expenses.
USTAX	An indicator that equals 1 if a organization has a U.S tax standard(public service expenses divided by investment assets) of 5% or more; otherwise 0.
PRSCORE	Total score, which aggregates all the value of USTAX, SCORE1, SCORE2. - SCORE1: A variable scaled between 0-1 after dividing PSR2 into quartile groups. - SCORE2 : A variable scaled between 0-1 after dividing PSREV(public service expenses divided by total revenues) into quartile groups.
ASSET	Natural logarithm of 1 plus total assets, denominated by KRW 1 thousand.
REV	Natural logarithm of 1 plus total revenues, denominated by KRW 1 thousand.
GOVERN	An indicator that equals 1 if a organization is established by the national government agencies or local governments or local communities; otherwise 0.
GRANT	Grants divided by total revenues.
DIVR	Dividend incomes divided by total revenues.

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