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The role of local sourcing and new analytical method to
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How MNEs deal with bribe requests from local government:

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Abstract

When a multinational enterprise's subsidiary (MNEs) faces bribe requests from local government officials, MNEs find themselves often caught in a dilemma with home country values. While some qualitative studies find that MNEs build legitimacy against unofficial pressure from government officials, no qualitative study analyzes this phenomenon. Therefore, existing studies have not provided a sufficient empirical basis for whether unofficial pressure affects MNEs' legitimacy-building activity. To fill this research gap, our study analyzes the relationship between bribe requests, which is one of the popular government pressures, and local sourcing, which is one of the MNEs' legitimacy-building activities by showing their contribution to local development. As a result, we find MNEs increase their local sourcing when receiving bribe requests. Furthermore, this study tests the validity of bribe requests from government officials as an instrumental variable to understand the causal effect of local sourcing on a subsidiary's performance. While existing studies have clarified the relationship between local sourcing and subsidiary performance, they often face problems in analyzing the causal effect. This study estimates the causal effect between them by using bribe requests from government officials as an instrumental variable and confirms a positive causal effect between them.

Keywords: legitimacy, MNEs, bribe, local sourcing, subsidiary performance

1 Introduction

Since local stakeholders tend to consider multinational enterprises (MNEs) with different value systems would be harmful to the local community, stakeholders exert various pressures on the MNEs to behave in a manner consistent with local values. This pressure is called institutional pressure (Kostova, 1999; Xu & Shenkar, 2002). To overcome institutional pressure, MNEs need to show the adaptation for different value systems of the host country by appealing for their contribution to the local economy (Gao et al., 2017; Hillman & Wan, 2005), such as doing donations and building public infrastructures (Stevens & Newenham-Kahindi, 2021), and local sourcing (Charpin, Powell, & Roth, 2021; Oki & Kawai, 2022; Wu & Jia, 2018). We call these activities legitimacy-building activities.

Despite the effectiveness of legitimacy-building activities, it is controversial whether MNEs take legitimacy-building activities against institutional pressure from the local government. While some quantitative studies find that pressure from the local government has no significant influence on social responsibility (Park & Ghauri, 2015; Reimann et al., 2012), a recent qualitative study (Stevens & Newenham-Kahindi, 2021) states that government and business have unofficial connections and MNEs build legitimacy from unofficial pressure from local government. According to Stevens and Newenham-Kahindi (2021), when MNEs are asked to pay a bribe, instead of paying the bribe, MNEs try to build their popular acceptance and strengthen their bargaining power to reduce pressures to engage in corruption. However, there is no quantitative study that investigates the relationship between unofficial pressure from government officials and legitimacy-building activities. Therefore, existing studies have not provided a sufficient empirical basis for whether unofficial pressure affects MNEs' legitimacy-building activity. To fill this research gap, our study analyzes legitimacy-building activities against unofficial pressure from the government. As a legitimacy-building activity, we focus on local sourcing, by which MNEs show their contribution to the development of the local economy (Charpin, Powell, & Roth, 2021; Oki & Kawai, 2022; Wu & Jia, 2018). Also, as an unofficial pressure from the government, we use the bribe request from government officials.

Furthermore, this study shows the validity of bribe requests from government officials as an instrumental variable to understand the causal effect of local sourcing on a subsidiary's performance. While existing studies have clarified the relationship between local sourcing and performance, they often face problems in analyzing

the causal effect. This study estimates the causal effect between them by using bribe requests from government officials as an instrumental variable and confirms a positive causal effect between them.

We use 231 to 384 firm-level data for MNEs that have expanded into the former Soviet Union countries since 1993. This context provides an ideal setting for this research. First, the difference in policies among countries was smaller than in other regions. Second, since many multinational companies moved into the region during this period, it is possible to compare a relatively large sample of firms. Third, due to the political disarray, bribe request was prevalent in this area and age.

Our paper has two contributions. First, we show that MNEs build legitimacy against unofficial pressure from governments. While existing studies have not provided a sufficient empirical basis for whether unofficial pressure affects MNEs' legitimacy-building activity, this paper shows that subsidiaries that are requested to pay bribes have higher local sourcing rates than others. Second, this study reveals that the exogenous variable of bribe requests is useful as an instrumental variable of local sourcing. In analyzing the relationship between legitimacy-building activities and corporate performance, seeking causal relationships has been important (Lahouel et al., 2019) but few studies estimate the causal effect. This provides important implications for future research on the causal relationship between local sourcing and performance.

2 Theory and hypothesis

2.1 Pressure from local government and legitimacy-building activities

While some quantitative studies (Park & Ghauri, 2015; Reimann et al., 2012) show that there is no significant relationship between pressure from the government and the legitimacy building of MNEs, recent qualitative studies (Elg et al., 2017; Salmi & Heikkilä, 2015; Stevens & Newenham-Kahindi, 2021) find that unofficial engagement has an influence of building legitimacy activities of MNEs. Stevens and Newenham-Kahindi (2021) show that when MNEs receive unofficial demands from local governments, apart from accepting or rejecting them, they take steps to increase their voice by building legitimacy. Salmi and Heikkilä (2015) research the relationship between MNEs and government officials in Russia and finds that MNEs exchange information and engage in legitimacy-building with government officials through a variety of formal and informal channels. This behavior is also confirmed by Elg et al. (2017), which states

that to control the uncertainty created by government involvement in business, and to show that they are contributing to society, companies engage in legitimacy-building activities.

This inconsistency of quantitative studies and qualitative studies results from the no attention of qualitative studies to the unofficial pressure from the government. This study investigates the relationship between unofficial pressure and the legitimacy-building behavior of MNEs. To examine whether MNEs build legitimacy in response to unofficial government pressure, we use two key indicators. First, as a measure of pressure from the local government, we use the bribe request from government officials. This indicator not only represents the unofficial pressure from the government but has a relationship with legitimacy-building activities. [Stevens and Newenham-Kahindi \(2021\)](#) prove that “as a response to the bribe request, activities such as infrastructure investments, knowledge transfer, or high-profile summits are deployed as alternatives to bribery.” ([Stevens & Newenham-Kahindi, 2021](#), p287). Second, as a Legitimacy building activity, we focus on the local sourcing rate. By enhancing local sourcing, MNEs can show their contribution to the development of the local economy ([Charpin, Powell, & Roth, 2021](#); [Oki & Kawai, 2022](#); [Wu & Jia, 2018](#)). Therefore, we consider local sourcing as a means of legitimacy-building.

Assuming the results of existing studies ([Charpin, Powell, & Roth, 2021](#); [Oki & Kawai, 2022](#); [Wu & Jia, 2018](#)), the bribe requests from government officials should enhance the local sourcing rate. Therefore, we make the following hypotheses.

Hypothesis 1 : *After receiving bribe requests from government officials, MNEs increase local sourcing rate.*

2.2 Effectiveness of bribe requests from local government officials as an instrumental variable

Legitimacy-building activities are a means to enhance corporate performance ([Young & Makhija, 2014](#)). Therefore, if it turns out that MNEs take legitimacy-building activities in response to bribe demands, it is necessary to investigate the relationship between local sourcing and performance. At this point, since the reverse causality problem between legitimacy-building activities and company performance ([Lahouel et al., 2019](#)) exists, we need to estimate causality, not correlation. [Liu et al. \(2021\)](#) conduct a panel Granger causality test to verify the reverse causality issue and find that a two-way causal relationship is confirmed

between the degree of social contribution activities and corporate performance. Therefore, it is necessary to address the issue of reverse causality in this study as well.

Furthermore, some studies do not avoid the problem of missing variables. An example is the country of origin. The geographic distance between the country of origin and the country of destination is expected to affect both firm performance [Hutzschenreuter, Kleindienst, and Lange \(2014\)](#) and local sourcing rates. Nevertheless, [Halaszovich and Lundan \(2016\)](#) uses the variable that indicates the extent of an obstacle to transporting goods, supplies, and inputs, which can affect the company's performance through the channel of distance from the home country. This mechanism has a strong effect on the countries of the former Soviet republics. Compared to other countries and regions, many of the countries of the former Soviet Union are located inland, increasing the need for transportation by other means than just ships. Therefore, the transportation distance is correlated with the obstacles to transportation and the exclusion constraint is not satisfied. Therefore, the reason [Halaszovich and Lundan \(2016\)](#) find no significant causal relationship in the former Soviet Union countries can be explained not only by the small sample size but by missing variable bias.

To overcome these issues, we can use an instrumental variable that is correlated with local sourcing but is uncorrelated with other firm characteristics that affect firm performance. The instrumental variable method has two important benefits. First, the instrumental variable method is useful to address reverse causality issues. ([ULL, 2021](#)) Second, the instrumental variable (IV) method gives us consistent estimates even though local sourcing is measured with error. If the instruments are also uncorrelated with the measurement error in local sourcing that arises from the interviewee's state rough value, then unlike OLS estimation, IV yields consistent estimates.

We assume that the variable of bribe requests from officials is useful as an instrumental variable. The reason is that bribe requests are an exogenous variable to the subsidiary's decision-making and MNEs is thought to build legitimacy against bribe demands ([Stevens & Newenham-Kahindi, 2021](#)). Following the existing studies ([Halaszovich & Lundan, 2016](#); [Joseph Li, Chen, & Yang, 2016](#); [Oki & Kawai, 2022](#)), we set the following hypotheses.

Hypothesis 2: *When we use bribe requests from government officials as an instrumental variable, local sourcing has a causal effect on ROS.*

3 Method

3.1 Data and sample

To test our research hypothesis, we target companies that established subsidiaries in former Soviet Union countries between 1993 and 2005. This context provides an ideal setting for our research questions in three ways. First, at this age and place, a lot of MNEs entered this area. After the Soviet Union collapsed in 1991, foreign multinationals began to take an interest in entering the market. By the mid-1990s, as the economic situation stabilized, the former Soviet Union countries began to develop legal systems and implement aggressive policies to attract foreign investment. As the economic situation stabilized in the mid-1990s, the former Soviet Union countries began to develop legal systems and implement aggressive policies to attract foreign investment. Host countries sought the management resources and network participation of companies from developed countries, and companies entered through FDI in search of lower production costs and increased demand for their products. Consequently, many MNEs have established themselves in the region. Second, Policies toward manufacturing multinationals were similar. While there were differences in policies among countries in the agricultural sector, there were tiny policy differences regarding the manufacturing industry, since all countries actively promoted the entry of manufacturers into the manufacturing sector. It can be inferred in the case of the manufacturing industry in the former Soviet Union, the extent of such policies was smaller than in other regions. Third, in this age and place, with the collapse of the former Soviet government, the payment of salaries to officials began to fall behind and demands for bribes from officials increased (Sanyal & Samanta, 2017).

We use public data from a firm-level survey conducted in countries in former Soviet republics in 2005. Although data were collected over multiple years, we used the 2005 data because we determined that this year had the largest sample of MNCs and would improve the accuracy of the analysis. This data was obtained from the world bank's *enterprise surveys* which aimed at collecting data from key manufacturing and service sectors in every region of the world. This survey uses standard survey instruments and a uniform sampling methodology to minimize measurement error. We limited the sample to subsidiaries that had been in operation for less than 12 years since the wide range of operation years ranging from 1 year to 320 brings endogeneity issues. Especially, the traits of MNEs change dramatically before and after 1993. Because the former Soviet Union countries began attracting more MNEs after 1993 (Javorcik, 2004), the nationalities

and risk preferences of firms that entered before and after 1993 may differ significantly. After narrowing down the data, the final sample is 231 to 384 subsidiary-level data.

3.2 Variables

All variables used are in Table 1. In equation (1), the dependent variable is *local sourcing rate*, which is a percentage of goods of domestic origin among inputs used in production and an instrumental variable is *Request for bribe*, which is a dummy variable that takes 1 if a gift or informal request is made and otherwise takes 0. In equation(2), the dependent variable is the return on sales(*ROS*), which is often used in previous studies. (Chan, Isobe, & Makino, 2008; Li & Sun, 2017; Oki & Kawai, 2022) That is because ROS is preferable to ROA (return on assets) as the measurement of a subsidiary's performance in that ROS is robust to the host country difference unrelated to the research (Chan, Isobe, & Makino, 2008).

The control variables are as follows. The subsidiary level control variables are *dummy*, *experience*, and *rate of domestic market sales*. *Dummy* takes 0 when the foreign ownership ratio is below 95% and above 5%, and 1 when the foreign ownership ratio is above 95%. The threshold value of the foreign ownership ratio varies widely across papers. In this paper, the boundary is drawn at the point where the foreign ownership ratio is 95%, but for robustness checks, the boundary is also drawn at 90% (Chang, Chung, & Jungbien Moon, 2013; Gaur & Lu,2007). Although some subsidiaries in the previous literature set the threshold at 99% (Javorcik, 2004), this study uses a threshold of 95% because Laprade & Poracchia (2012) state that in European countries except Italy, a significant shareholder is a shareholder who owns at least 5% of the company's shares. Therefore, in this study, we use 95% as a threshold but as a robustness check, we use 90%. *Experience* is the value of how long the company has been in the host country. The reason for adding *rate of domestic market sales* is that they have a correlation with the quality of components required. And we also controlled firm size. The industry-level control variable is *Industry dummy*, which controls for industry factors such as product characteristics that cannot be fully measured by the control variables. Finally, we add *Obstacles to get license*, *Informal gift payment*, and *Corruption level of court system* as control variables. Country-level control variables are *EU dummy*, *tariff rate*, and *GDP*. The reason for adding these variables is that participation in the EU and tariff rates affect the cost of import costs, and GDP is related to the level of technology in the local industry and affects the quality of parts from local suppliers.

Table 1: Variable name

Variable name		Definition
<i>Local sourcing rate</i>		Percentage of goods of domestic origin among inputs used in production
<i>Predicted local sourcing rate</i>		Value of local sourcing rate estimated by model1
<i>ROS</i>		The value of profit divided by sales
<i>Request for bribe</i>	Dummy	Dummy variable that takes 1 if a gift or informal request is made
<i>WOS dummy</i>	Dummy	A dummy variable that takes the value 0 when the foreign ownership ratio is below 95% and above 5%, and 1 when the foreign ownership ratio is above 95%.
<i>Share of equity</i>		Percentage owned by foreign capital.
<i>Experience</i>	Log	A value indicating the number of years between the firm's establishment and the year in which the survey was conducted.
<i>Tariff rate</i>		the weighted average of effectively applied rates for all products subject to tariffs calculated for all traded goods.
<i>Firm size</i>	Log	net book value of machinery vehicles, and equipment in last fiscal year
<i>Host country GDP</i>		gross domestic product divided by midyear population
<i>% of national sales</i>		percentage of sales for domestic market
<i>EU Dummy</i>	Dummy	Dummy variable that takes 1 if the host country of the subsidiary belongs to EU.
<i>Obstacles to get license</i>		Obstacle to the current operations, business licensing and permits
<i>Informal gift payment</i>		The degree of non-corruption of court
<i>Corruption level of court system</i>		% of contract value av. firm pays in informal gifts to government to secure contract.

4 Estimation

4.1 Bribe request and local sourcing

The dependent variable z_i denotes the *local sourcing rate* obtained by firm i . *local sourcing rate* takes values between 0 and 100. Because they are censored at the endpoints, we use the Tobit model. In this model, we estimate the local sourcing rate after adding the instrumental variables.

$$z_i = \pi_0 + \pi_i \text{birbe} + x_i \theta + \alpha_i + v_i \quad (1)$$

4.2 Estimating Causal effect of local sourcing on ROS by instrumental variable method

IV method requires two important assumptions. first, there must be a sufficient correlation between IV and local sourcing rate variable. Second, the exclusion restriction must be satisfied. The first assumption is confirmed in Equation (1). The second issue is addressed by a robustness check by adding the control variable.

The estimating equation for the first step is the same as Equation (1). And to test Hypothesis 2, we use *Predicted local sourcing rate* as a second-stage explanation variable. In the second model, I estimated the causal effect of local sourcing on the company's performance.

$$y_i = \beta_0 + \beta_1 \hat{z}_i + x_i \theta + \alpha_i + u_i \quad (2)$$

5 Result

Table 2 provides descriptive statistics of our sample. Table 3 reports the correlation matrix for the variable.

We start our analysis by estimating a Tobit regression of the choice of local sourcing. Table 4 reports the results with positive and significant ($p < 0.01$) indicating that MNEs choose high local sourcing rates when they are asked to pay the bribe. In Column (1) the threshold between Wholly owned subsidiaries (WOs) and Joint venture subsidiaries (JVs) are 90% and in Column (2) the threshold is 95%.

Table 2: Basic statistics

<i>Variable</i>	Obs	Mean	Std.Dev	Min	Max
<i>Local sourcing rate</i>	465	48.22796	41.86663	0	100
<i>Predicted local sourcing rate</i>	293	48.45912	49.54546	-94.0895	165.6615
<i>ROS</i>	281	0.922593	0.035311	0.680663	0.991257
<i>Request for bribe</i>	423	0.515366	0.500356	0	1
<i>Skilled labor rate</i>	399	0.785538	0.296123	0	1
<i>WOS dummy</i>	478	0.535565	0.499256	0	1
<i>Share of equity</i>	478	79.72385	24.51276	10	100
<i>Experience</i>	478	1.754642	0.253028	1.386294	2.079442
<i>Tariff rate</i>	460	5.062804	3.184193	0.6	12.77
<i>Firm size</i>	466	3.75066	1.586975	0.693147	7.948032
<i>Host country GDP</i>	478	8220.231	5654.103	715.8657	27595.6
<i>% of national sales</i>	478	74.15272	36.90284	0	100
<i>EU Dummy</i>	478	0.131799	0.338627	0	1
<i>Capital intensity</i>	207	9.43631	1.43603	4.366153	13.13774
<i>Obstacles to get license</i>	458	1.124454	1.04589	0	3
<i>Informal gift payment</i>	389	1.766581	3.93734	0	20
<i>Corruption level of court system</i>	435	2.68046	0.993741	1	4

Table 3: Correlation matrix

	Local sourcing rate	ROS	Request for bribe	WOS dummy	Share of equity	Experience	Tariff rate	Firm size	Host country GDP	% of national sales	EU Dummy	Obstacles to get license	Informal gift payment	Corruption level of court system
Local sourcing rate	1													
ROS	0.0497	1												
Request for bribe	0.1247	-0.0723	1											
WOS dummy	-0.0819	-0.013	-0.025	1										
Share of equity	-0.0884	-0.025	-0.0721	0.9007	1									
Experience	0.0156	0.0675	0.022	0.034	0.008	1								
Tariff rate	0.1119	0.0064	0.1548	-0.15	-0.1491	-0.0568	1							
Firm size	0.1553	0.1834	0.008	0.0176	0.0215	0.0224	0.0739	1						
Host country GDP	0.0066	-0.0057	-0.1828	0.1218	0.1516	-0.0368	-0.3993	-0.1153	1					
% of national sales	0.0041	-0.0341	0.107	0.0079	0.0062	0.1209	0.1238	-0.3092	-0.0514	1				
EU Dummy	0.0322	0.0013	-0.1331	-0.0007	0.0195	-0.0293	-0.3373	0.0288	0.2737	-0.086	1			
Obstacles to get license	0.0353	-0.0416	0.1083	-0.1083	-0.0868	0.0117	-0.0016	0.0493	-0.0408	-0.0654	0.0552	1		
Informal gift payment	-0.0133	0.0029	0.2336	-0.0402	-0.019	-0.0017	0.0579	-0.1321	-0.0461	0.0813	-0.1282	0.2093	1	
Corruption level of court system	0.0351	-0.0487	-0.0875	0.0157	0.0303	0.0064	-0.1184	0.1539	0.0931	-0.0333	0.1208	-0.0493	-0.1047	1

Table 4: Tobit estimate

VARIABLES	(1) Local sourcing rate	(3) Local sourcing rate
<i>Request for bribe</i>	21.95*** (7.983)	21.32*** (7.965)
<i>WOs dummy</i>	-20.03 (17.96)	-5.559 (16.19)
<i>Share of equity</i>	-0.0229 (0.362)	-0.288 (0.329)
<i>Experience</i>	3.521 (15.61)	2.878 (15.62)
<i>Firm size</i>	9.205*** (2.792)	9.210*** (2.796)
<i>Tariff rate</i>	2.784* (1.421)	2.888** (1.424)
<i>Host country GDP</i>	0.00153* (0.000785)	0.00156** (0.000785)
<i>% of national sales</i>	-0.0497 (0.117)	-0.0438 (0.117)
<i>EUdummy</i>	29.56** (12.38)	29.48** (12.40)
<i>Constant</i>	-28.39 (41.12)	-14.57 (40.54)
<i>Industry Dummy</i>	yes	yes
Threshold	90	95
Observations	384	384

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Also, this strong relationship with *Request for bribe* and *local sourcing rate* imply that *Request for bribe* is useful for meeting the relevance assumption of the IV method. Of the control variables, *Tariff rate* has a positive and significant ($p<0.05$) correlation with *Local sourcing rate*, implying that when tariffs are high, the cost of importing materials increases, so materials are procured domestically. The *Host country GDP* is positive and significant ($p<0.05$) implying that materials from economically developed countries are of high quality and readily available to MNEs. The *EU dummy* is positive and significant ($p<0.05$), which is beyond our expectations. It's possible to explain that accession to the EU has made it easier to procure locally, as many MNEs have moved in from Western countries.

The result of hypothesis 2 is in Table 5. In columns (1) and (2), the coefficient of *Predicted local sourcing rate* is positive and significant ($p < 0.01$), indicating that local sourcing has a positive causal effect on ROS. Since this study follows the definition by Laprade & Poracchia (2012), we use 95% threshold point since this model. In column (2) of Table 5, there is no control variable below $p < 0.05$ significance.

Table5: Second stage estimation

VARIABLES	(1) ROS	(2) ROS
<i>Predicted local sourcing rate</i>	0.000232*** (7.44e-05)	0.000233*** (7.42e-05)
<i>WOs dummy</i>	0.00383 (0.0107)	0.00934 (0.00960)
<i>Share of equity</i>	2.49e-05 (0.000213)	-6.87e-05 (0.000195)
<i>Experience</i>	0.00683 (0.00909)	0.00611 (0.00912)
<i>Firm size</i>	0.000872 (0.00193)	0.000890 (0.00193)
<i>Tariff rate</i>	-0.00144 (0.000878)	-0.00135 (0.000881)
<i>Host country GDP</i>	-3.82e-07 (4.55e-07)	-3.62e-07 (4.54e-07)
<i>% of national sales</i>	-4.65e-05 (6.83e-05)	-4.73e-05 (6.83e-05)
<i>EUdummy</i>	-0.00615 (0.00727)	-0.00613 (0.00725)
<i>Constant</i>	0.909*** (0.0232)	0.914*** (0.0231)
<i>Industry Dummy</i>	yes	yes
<i>Threshold</i>	90	95
<i>Observations</i>	231	231
<i>R-squared</i>	0.120	0.123

Standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

5.1 Robustness check

As a robustness check, we confirm the exclusion restriction of IV by adding three control variables. First, the existence of a bribe demand can change the operation cost. When a bribe demand is made and companies accept the demand, a bribe payment occurs. The payment of a bribe may reduce a firm's investment in production equipment, etc., and thus reduce its profit per employee. Therefore, we include *Informal gift payment* as a control variable. Second, it is also conceivable that the government office would speed up its administrative procedures in return for paying a bribe. [Salmi and Heikkilä \(2015\)](#) indicate that Multinational companies are connected through various channels not only to the officials in charge of inspections but also to the officials in charge of licensing. Therefore, factors such as more demands for bribes may be correlated with connections to the licensing officials and may affect the time it takes for a company to obtain approval for a license. Therefore, we included *obstacles to obtaining a license* as a new control variable. Moreover, the degree of corruption in the society to which the MNEs belongs has more variations than at the national level. Corruption levels on a local basis may affect bribe demands and corporate performance. Therefore, we used the subsidiary-level control variable *corruption level of court system* as the degree of local-level corruption. The result is in the supplemental Table 6. This result shows that the coefficient of the *Predicted local sourcing rate* is positive and significant ($p < 0.05$). Though the significance level has decreased from $p < 0.01$ to $p < 0.05$, this can be explained by the decrease in sample size. And when it comes to control variables, no coefficient is significant at 0.05% point, which imply that *bribe request from government officials* meets the assumption of exclusion restriction.

Table 6: Robustness check

VARIABLES	(1) ROS	(2) ROS
Predicted local sourcing rate	0.000209** (8.55e-05)	0.000207** (8.63e-05)
WOS dummy	0.0176 (0.0130)	0.0188 (0.0117)
Share of equity	-0.000175 (0.000261)	-0.000188 (0.000237)
Experience	0.0112 (0.0114)	0.00991 (0.0115)
Tariff rate	-0.00186 (0.00135)	-0.00188 (0.00135)
Host country GDP	8.98e-08 (5.47e-07)	8.07e-08 (5.46e-07)
% of national sales	2.09e-05 (9.05e-05)	1.38e-05 (9.05e-05)
EU Dummy	-0.0110 (0.00901)	-0.0105 (0.00894)
Firm size	0.00230 (0.00238)	0.00242 (0.00238)
Obstacles to get license	0.000993 (0.000783)	0.00105 (0.000783)
Informal gift payment	-0.00541* (0.00286)	-0.00551* (0.00286)
Corruption level of court system	-0.00404 (0.00313)	-0.00418 (0.00313)
Constant	0.911*** (0.0317)	0.915*** (0.0319)
Industry Dummy	yes	yes
Threshold	90	95
Observations	164	164
R-squared	0.191	0.195

Standard errors in parentheses

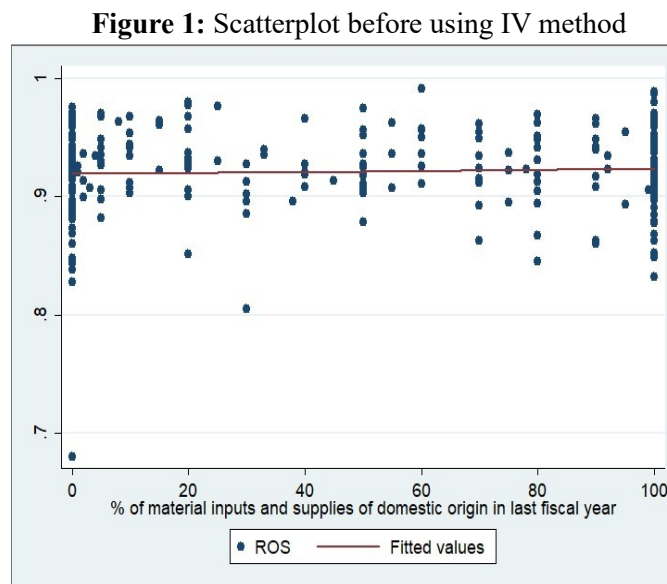
<0.01, ** p<0.05, * p<0.1

6 Discussion and conclusion

To understand MNE's legitimacy-building activity against bribe requests and its causal effect on ROS, we use MNE's subsidiary-level data in the former Soviet Union republics and find two important things. First, we find that MNEs enhance local sourcing rates when they receive bribe demands from local government officials. This implies that when MNEs receive unofficial requests from the government, they choose a way

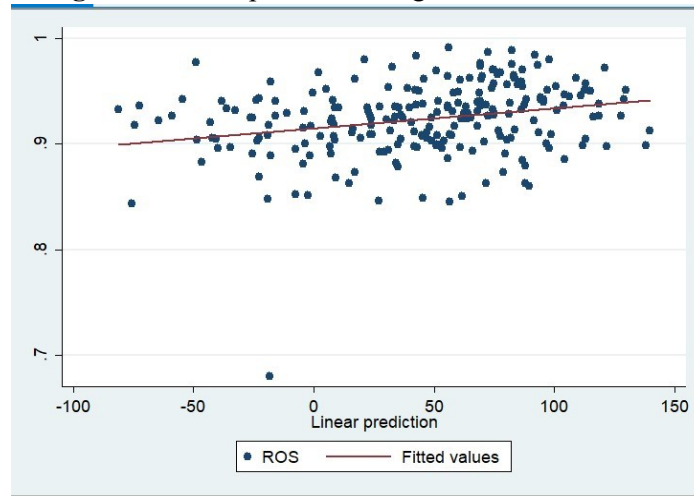
that will not undermine the legitimacy of their home countries and deflect pressure from host countries. Second, this study shows the validity of bribe requests from government officials as an instrumental variable to understand the causal effect of local sourcing on a subsidiary's performance. While existing studies have clarified the relationship between local sourcing and performance, they often face problems in analyzing the causal effect. This study estimates the causal effect between them by using bribe requests from government officials as an instrumental variable and confirms a positive causal effect between them.

This paper has two contributions. The first is for the international business literature. While some qualitative research finds that MNEs build legitimacy using means unrelated to paying bribes, no qualitative study analyzes this phenomenon. Our study analyzes the relationship between bribe requests and legitimacy-building activities. And the results show the external validity of a recent qualitative study (Stevens & Newenham-Kahindi, 2021). The second is about the analysis method. We show that the instrumental variable is a useful way to analyze the relationship between local sourcing and performance. When we perform multiple regression analysis, Figure 1 is obtained, while when the instrumental variable method was used, Figure 2 is obtained. By making causal inferences explicitly in this way, we show that we can obtain these accurate results.



Note: A comparison of local sourcing rates and profit per employee before using the instrumental variable.

Figure 2: Scatterplot after using IV method



Note: A comparison of local sourcing rates and profit per employee after using the Instrumental variable.

6.1 Limitation and Future Research

This paper has several limitations. First, the data on the bribe request and local sourcing were obtained at the same time. In accordance with prior research (Elg et al., 2017; Salmi & Heikkilä, 2015; Stevens & Newenham-Kahindi, 2021), we know bribes affect legitimacy-building behavior, but we have not completely ruled out the possibility of reverse causality. Therefore, further analysis, such as panel data analysis is needed.

Also, this paper does not analyze boundary conditions. However, the relationship between unofficial pressure from local government and legitimacy-building activity, and the causal effect of local sourcing may vary depending on the boundary conditions. For example, when it comes to the relationship between local sourcing and performance, an existing study shows the importance of boundary conditions (Oki & Kawai, 2022). Therefore, future research should be conducted to find a moderator for each of them. In this case, it would be advantageous to use bribe requests from the local government as an instrumental variable.

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