Business withdrawal, new entry and introduction of outside directors in Japanese manufacturing industry

Ryosuke Moriya

Table of Contents

Abstract

This paper examines the relationship between the proportion of outside directors and business withdrawals and new entries in the Japanese manufacturing industry during the 2010s. The results empirically confirmed that firms with a higher proportion of outside directors are more likely to either withdraw from an existing business or enter a new business in the following year. These findings suggests that the presence of outside directors may alleviate the pursuit of a "quiet life" caused by the inward-looking nature of CEOs and self-protective actions by business divisions, thereby promote business withdrawals and the new entries.

Ryosuke Moriya
Senior Researcher, Tokio Marine dR Co., Ltd. (Healthcare and Human Capital Management Division).
Received B.A. in Policy Management from Keio University and MBA from Hitotsubashi University Business School. He joined Tokio Marine dR in 2023 after joining the Japan Chamber of Commerce and Industry, where he worked in the Industrial Policy, General Affairs, and International Affairs Departments.
e-mail:ryosukem90@gmail.com

1. Introduction

The purpose of this study is to investigate whether the increasing proportion of outside directors has influenced managerial decisions regarding business withdrawal and new market entry in Japanese manufacturing firms during the 2010s, from the perspective of corporate governance.

One of the factors often cited as the reason for the low profitability of Japanese firms is the lack of optimization in their business portfolios[1]. Against this backdrop, significant changes in corporate governance occurred following the introduction of the Corporate Governance Code in 2015 by the Financial Services Agency and the Tokyo Stock Exchange. Under this code, listed companies were, in principle, required to appoint at least two independent outside directors. This paper empirically examines how the rise in proportion of outside directors following the introduction of the Corporate Governance Code affected business withdrawals and new entries, using data from securities reports and other sources.

Two main findings are presented. First, regarding business withdrawals, a higher ratio of outside directors is associated with an increased likelihood of withdrawal, and this effect is stronger in firms with a lower sales concentration across business segments. Second, for new market entry, a higher outside director ratio is associated with a greater likelihood of new entry, and this effect was stronger when the investment opportunities in existing businesses were limited. Based on the "quiet life" hypothesis (Inoue et al., 2018), which suggests that managers tend to avoid difficult decisions such as business exits and entries due to agency problems, these findings suggest that firms are less likely to withdraw segments with large revenues and firms with limited investment opportunities in current business are less likely to enter new markets.

This paper makes three main contributions. First, it highlights the influence of managerial attitudes and organizational culture on agency problems in Japanese manufacturing firms. It suggests that inward-looking managerial behavior may hinder exits from high-revenue segments, and that self-protecting behavior in business units may prevent firms with limited investment opportunities from entering new businesses. Second, it empirically confirms the relationship between the proportion of outside directors and corporate behavior. While previous studies have not consistently found a relationship between an increased number of outside directors and firm performance, this study suggests that outside directors may play a role in mitigating agency problems by monitoring management and thereby facilitating changes in business portfolios (e.g., withdrawals and new entries)[2]. Third, the paper presents an empirical method for identifying business exit and entry, focusing on changes in industry codes at the segment level. By tracking whether a previously assigned industry code disappears or a new code is assigned, the analysis reduces the potential bias caused by firms' discretionary manipulation of segment reporting.

The remainder of the paper is organized as follows. Section 2 reviews the relevant literature. Section 3 develops hypotheses based on prior studies. Section 4 describes the dataset, methodology, and empirical results. Section 5 concludes with a summary of findings and

[1] Ministry of Economy, Trade and Industry (METI). [2014], p. 38.

[2] For example, Morikawa [2019], using panel data from fiscal years 2009–2016, found no evidence of negative effects, but also reported no significant effects of an increase in outside directors on investment, risk-taking, or profitability.

implications for future research.

2. Literature Review

This study reviews two main areas of literature: (1) the impact of corporate governance on diversification strategies, and (2) the effects of diversification on firm value.

Regarding the influence of corporate governance on diversification, prior studies have taken two perspectives. One line of research argues that agency problems lead managers to pursue excessive diversification (e.g., Denis et al., 1997; Aggarwal and Samwick, 2003). Another line contends that agency problems may cause managers to reduce investments or avoid business withdrawals (e.g., Bertrand and Mullainathan, 2003; Ikeda et al., 2018). For example, Aggarwal and Samwick (2003) found that performance-based compensation was associated with a greater degree of diversification, suggesting the presence of common factors such as managerial traits underlying both performance-based compensation and increased diversification. Bertrand and Mullainathan (2003) showed that in U.S. states where anti-takeover laws weakened corporate governance, both new plant openings and old plant closures declined, indicating a managerial preference for a "quiet life." Ikeda et al. (2018) tested the quiet life hypothesis in Japan and found that firms with cross-shareholdings or stable shareholders were more likely to avoid difficult decisions such as large-scale investments or restructuring.

This study focuses on the influence of outside directors as an element of corporate governance. While the proportion of outside directors is often found to have no direct relationship with firm performance (Adams et al., 2010), Duchin et al. (2010) demonstrated that an increase in outside directors improves performance in firms where the information acquisition costs are low. Other studies, such as Weisbach (1988) and Byrd and Hickman (1992), have shown that the presence of outside directors affects the likelihood of CEO turnover and the firm's response to takeover attempts.

The second area of literature concerns the effect of diversification on firm value. Numerous studies have reported that diversified firms tend to have lower valuations compared to focused firms—a phenomenon known as the diversification discount (e.g., Berger and Ofek, 1995; Lang and Stulz, 1994; Servaes, 1996). Rajan et al. (2000) attribute this discount to internal competition among divisions and their self-interested investment behavior, which may result in inefficient capital allocation to low-growth businesses. Campa and Kedia (2002) pointed out the endogeneity of the diversification decision, suggesting that firms tend to diversify in response to deteriorating business conditions. Hoechle et al. (2012) argued that the diversification discount can be partially explained by weak corporate governance.

This study develops hypotheses on business withdrawal and entry decisions based on the managerial agency problems highlighted by the quiet life hypothesis. It also investigates the

agency problems managers face considering inter-divisional competition and self-serving investment behavior described by Rajan et al. (2000).

3. Hypothesis Development

In product portfolio management, managers typically make decisions regarding business exit based on expected prospects and profitability[3]. Of course, monitoring of managers itself does not directly induce business withdrawal or entry. However, when corporate governance is weak and managers seek a "quiet life," they may refrain from making difficult decisions such as withdrawing from underperforming businesses or entering promising new markets. If monitoring by outside directors may mitigate such agency problems, firms will be more likely to make decisions about business withdrawal or entry into new markets.

Before proceeding further, it is important to clarify the dual meaning of "diversification." The term "diversification" can refer to two distinct ideas: (1) the state of operating multiple businesses across different areas (i.e., diversification as a corporate strategy), and (2) the act of entering a new business area (i.e., diversifying into a new business area). This paper empirically investigates how firms modify their business portfolios in the context of the former "diversification" through analysis of both withdrawals and new entries. At the same time, new market entry is analyzed in the context of the second sense of "diversifying".

First, I consider hypotheses related to business withdrawals. Rajan et al. (2000) argued that internal competition among divisions and the resulting allocation of corporate resources can lead firms to maintain investments in low-growth businesses. Managers with strong inward-looking tendencies may be influenced by such interdivisional dynamics, making it difficult to withdraw from existing businesses. In these cases, they may be more inclined to exit businesses with small sales—those with less internal political weight—while postponing exit from larger segments. However, if outside directors provide effective monitoring, managers may shift their focus to business profitability, growth potential, and accountability to shareholders, making exit decisions less dependent on segment size.

In practice, however, it is often difficult to obtain sales data for the exited business segments—except in the case of divestitures by M&A. Therefore, this study uses the Herfindahl-Hirschman Index (HHI) of segment-level sales as an alternative proxy for examining the relationship between withdrawals and segment sales. A high HHI indicates that sales are concentrated in a few segments, making it easier to exit smaller segments. In contrast, a low HHI implies more evenly distributed sales, generating strong internal resistance to any exit decision and thus less likely when managers

[3] For example, Numagami [2008] introduces Product Portfolio Management as a representative method of business portfolio management in diversified firms.

are inward-looking. In such cases, agency problems may be more severe, and the monitoring role of outside directors becomes more critical for a decision of business withdrawal.

Based on this consideration, I formulate the following hypotheses:

Hypothesis 1-1:
Firms with a higher proportion of outside directors are more likely to withdraw from existing businesses.

Hypothesis 1-2:
The effect of outside directors on business withdrawal is stronger when the sales concentration across segments is lower.

Next, I consider hypotheses related to new market entry. Referring again to Rajan et al. (2000), they assumed that divisional managers make investment decisions to maximize divisional benefits, rather than overall corporate performance. As a result, managers may invest not only in high-return projects but also in self-preserving ones, aiming to prevent reallocation of capital to other divisions.

If a division happens to have strong investment opportunities, such self-preserving investments may appear to be effective investments. In contrast, when such investments are made in divisions with limited opportunities, they can lead to inefficient allocations to low-growth businesses. Moreover, if key divisions with large revenues suffer from declining investment opportunities and continue making self-preserving investments, this results in inefficient and low-profit outcomes. Such self-preserving behavior can hinder the firm's ability to invest in promising new businesses, even though allocating capital to high-growth new areas is essential for ensuring future profitability when major businesses face limited opportunities.

This discussion assumes that managers do not fully control divisional investment decisions; however, increased monitoring by outside directors may enhance managerial oversight of divisional investments. If this occurs, managers can get greater control over divisional decisions and the firm may be more likely to invest in high-return opportunities, including M&A or new business development. Therefore, a higher proportion of outside directors may indirectly lead to more active business entry through enhanced managerial monitoring of business divisions.

To assess the scale of existing investment opportunities, I use Tobin’s Q, under the assumption that firms with recognized investment opportunities receive higher market valuations. Accordingly, Tobin’s Q is used as a proxy for the magnitude of investment opportunities.

Based on this logic, I formulate the following hypotheses:

Hypothesis 2-1:

Firms with a higher proportion of outside directors are more likely to enter new business areas.

Hypothesis 2-2:

The effect of outside directors on new market entry is stronger when Tobin's Q is lower.

4. Empirical Analysis

4.1 Data Construction

To test the hypotheses, I constructed a panel dataset of 15,425 firm-year observations covering 1,484 Japanese manufacturing firms[4] over 11 fiscal years from FY2010 to FY2020[5] (April 2010 to March 2021)[6].

The data were compiled and processed using multiple sources: *NIKKEI Financial Quest* and the *NEEDS-Cges; Corporate Governance Evaluation System* provided by Nikkei Inc., *SPEEDA* by Uzabase Inc., and *eol* by Pronexus Inc. Business withdrawal and new market entry (diversifying) indicators were created by the author, based on decrease or increase of the variety of industry categories (NEEDS sector codes) at the business segment level.

The variables used in the analysis are summarized in **Table 1**, and the descriptive statistics for each variable are presented in **Table 2**. Correlation coefficients among the variables are shown in the appendix (Appendix Table 1, p. 14). Although the Herfindahl-Hirschman Index (HHI) of segment-level sales is highly correlated with the diversification indicator (correlation = -0.69), the main results remained robust even when the diversification variable was excluded from the analysis.

4.2 Estimation Method: PROBIT Model

To test Hypotheses 1 and 2, I estimate the determinants of business withdrawal and new entry using a PROBIT model. The estimation equations are as follows:

Hypotheses 1-1 and 1-2 (Business withdrawal in the following fiscal year):

$$Withdrawal_{i,t+1}=\alpha_0+\alpha_1 Ratio\ of\ outside\ directors_{i,t}+\alpha_2 HHI\ of\ segment\ earning_{i,t}$$
$$+\alpha_3 Interaction\ of\ outside\ directors\ and\ HHI\ of\ segment_{i,t}$$
$$+\alpha_4 Control\ variables_{i,t}+\alpha_5 Industry\ dummies+\alpha_6 Year\ dummies+\varepsilon_{i,t}$$

Note: The variables HHI of segment earning and the interaction term are included only in

[4] Since investment and divestment behaviors are likely to differ between manufacturing and non-manufacturing firms, managerial and divisional decisions regarding business withdrawal and new entry may also differ; hence, this study focuses exclusively on manufacturing firms.

[5] When conducting the analysis in this study, the available data from NIKKEI FinancialQUEST covered fiscal year 2010 onward. In addition, since this period includes the years before and after the 2015 corporate governance reform, the analysis is limited to fiscal years 2010 and later.

[6] For comparability across firms and fiscal years, firms or years with a fiscal period other than 12 months are excluded.

Hypothesis 1-2.

Hypotheses 2-1 and 2-2 (New entry in the following fiscal year):

$$Diversifying_{i,t+1}=\alpha_0+\alpha_1 Ratio\ of\ outside\ directors_{i,t}+\alpha_2 Tobin's\ q_{i,t}$$
$$+\alpha_3 Interaction\ of\ outside\ directors\ and\ Tobin's\ q_{i,t}$$
$$+\alpha_4 Control\ variables_{i,t}+\alpha_5 Industry\ dummies+\alpha_6 Year\ dummies+\varepsilon_{i,t}$$

Note: The variables Tobin's q and the interaction term are included only in Hypothesis 2-2.

Table 1. Variables and Definitions

Variables	Definition / Description
(Dependent Variables)	
Withdrawal	Dummy variable indicating business withdrawal. Equals 1 if the variety of NEEDS industry classification codes decreases by one or more at the segment level.
Diversifying	Dummy variable indicating new business entry. Equals 1 if the variety of NEEDS industry classification codes increases by one or more at the segment level.
(Independent Variables)	
Ratio of outside directors	Proportion of outside directors (Number of outside directors ÷ Total number of board members).
HHI of segment earning	Herfindahl-Hirschman Index (HHI) of sales across business segments. Used only in the analysis of business withdrawal.
Interaction of outside directors and HHI of segment	Interaction term between the ratio of outside directors and HHI of segment sales (mean-centered). Used only in the analysis of business withdrawal.
Tobin q	Tobin's Q. Used only in the analysis of new business entry.
Interaction of outside directors and Tobin q	Interaction term between the ratio of outside directors and Tobin's Q (mean-centered). Used only in the analysis of new business entry.
(Control Variables)	
Log of total sales	Natural logarithm of total sales.
ROA	Return on Assets (winsorized at the top and bottom 2%). ROA values for years *t*, *t–1*, and *t–2* are included to reflect time lag in decision-making.
Investment / total sales	Capital expenditure-to-sales ratio.
Leverage	Interest-bearing debt ratio (values below 0 and above 3.0 are replaced with 3.0).
D	Dummy variable indicating diversification. Equals 1 if the firm has three or more segment-level industry codes.
CEO turnover within 3 years	Dummy variable indicating CEO turnover within the past three years.
Sales in foreign countries	Ratio of overseas sales to total sales.

Note: For *ROA*, in order to avoid distortion of the analysis results due to outliers, I applied winsorization using the winsor command in Stata, which replaces outliers beyond a specified range with the nearest value within that range. For *ROA*, values in the upper and lower 2% tail were winsorized. For *Leverage*, firms with a negative interest-bearing debt ratio are considered to have liabilities exceeding total assets, implying an extremely large amount of debt.

Source: Compiled by the author (hereafter the same).

Table 2: Descriptive Statistics

Variable Name	Obs.	Mean	Median	Std. Dev.	Min	Max
Ratio of outside directors (%)	15,074	22.584	22.222	16.123	0.000	88.889
Log of total sales	15,407	10.578	10.433	1.806	0.000	17.224
ROA (%)	15,070	2.807	3.060	4.593	-15.610	12.350
Investment ／ total sales (%)	15,425	6.662	4.063	9.407	0.004	50.000
Leverage (%)	15,425	47.655	24.449	63.339	0.000	300.000
D	15,425	0.527	1.000	0.499	0.000	1.000
CEO turnover within 3 years	13,761	0.364	0.000	0.481	0.000	1.000
HHI of segment earning	15,218	0.716	0.730	0.265	0.100	1.000
Sales in foreign countries (%)	15,425	26.218	19.110	27.134	0.000	100.000
Tobin q	15,103	1.146	0.930	1.229	0.261	36.085
Withdrawal	15,425	0.030	0.000	0.171	0.000	1.000
Diversifying	15,425	0.030	0.000	0.172	0.000	1.000
Number of Segment Industry Codes	15,425	3.331	3.000	2.692	1.000	29.000

Interaction terms are introduced to capture conditional effects between explanatory variables. When an interaction term is statistically significant, the marginal effect of one variable on the dependent variable varies depending on the level of the other variable. For instance, if the interaction between the ratio of outside directors and the segment HHI is significant in Hypothesis 1-2, then changes in segment HHI alter the effect of the outside director ratio on the probability of business withdrawal.

Among the control variables, ROA is included for three consecutive years (t, t−1, and t−2) following Campa and Kedia (2002), to account for the time lag between deteriorating performance and corporate decision-making regarding withdrawal or new entry. Additionally, CEO turnover is controlled for, as newly appointed CEOs may have stronger incentives to differentiate themselves from prior management by initiating business withdrawals or entering new markets. CEO turnover is captured by a dummy variable that equals one 1 if a turnover change occurred within the past three years. Furthermore, the ratio of overseas sales is included as a control variable, since firms with a low exposure to international overseas markets may exhibit different diversification behaviors within their domestic markets.

4.3 Estimation Results

The results of the analysis for **Hypotheses 1-1 and 1-2** are presented in **Table 3**. The coefficient on the Ratio of outside directors is positive and statistically significant with respect to the business withdrawal dummy, consistent with **Hypothesis 1-1**. This finding suggests that increased monitoring by outside directors is associated with a higher likelihood of business withdrawal, implying that managers tend to postpone withdrawal decisions without such corporate governance mechanism. The pseudo R-squared for the model is 0.113, which is comparable to prior studies.

In model (3), the interaction term between the Ratio of outside directors and the HHI of segment earnings is negatively significant, indicating that as the segment sales concentration (HHI) decreases, the effect of the outside director ratio on the likelihood of business withdrawal becomes stronger. This result supports **Hypothesis 1-2**.

To check the robustness of the findings, I conducted alternative specifications. I replaced the diversification dummy (D) with the total number of segments, and also employed a TOBIT model using the proportion of segments withdrawn as the dependent variable. In both cases, the results remained consistent with the main findings (Appendix Tables 2 and 3, pp. 15-16). However, when applying a fixed-effects model to control firm-specific unobserved heterogeneity, the results became statistically insignificant (Appendix Table 4, p. 17). This result suggests the possibility that unobservable firm-specific characteristics may be influencing the withdrawal decision, and the governance effect may not be entirely isolated, but managers with low segment-sales concentration may have tendencies to avoid withdrawal decisions from existing businesses.

Although not shown in Table 3, the marginal effects from model (1) indicate that a one-percentage-point increase in the ratio of outside directors raises the probability of business withdrawal by 0.05 percentage points. Given that the average probability of business withdrawal during the sample period is 3.33%, this corresponds to a 1.5% relative increase in withdrawal likelihood.

Table 3. PROBIT Model Estimation Results for Withdrawal in the Following Year

	Withdrawal (next year) Model(1)		Withdrawal (next year) Model(2)		Withdrawal (next year) Model(3)	
VARIABLES	Coefficient	T-statistic	Coefficient	T-statistic	Coefficient	T-statistic
Ratio of outside directors	0.008***	4.062	0.009***	4.315	0.006***	2.738
HHI of segment earning			-0.122	-0.848	-0.065	-0.445
Interaction term of outside directors and HHI of segment earning					-0.023***	-3.303
ROA	-0.011	-1.388	-0.008	-1.013	-0.009	-1.057
ROA (1 lag)	0.001	0.154	-0.002	-0.215	-0.002	-0.188
ROA (2 lag)	-0.021***	-2.759	-0.018**	-2.333	-0.018**	-2.229
Log of total sales	0.069***	3.837	0.064***	3.391	0.057***	3
Investment ／ total sales	0.001	0.281	0.002	0.486	0.002	0.549
Leverage	0	0.343	0	0.574	0	0.651
D	0.706***	9.896	0.728***	8.202	0.729***	8.241
CEO turnover within 3 years	0.148***	2.682	0.134**	2.367	0.130**	2.294
Sales in foreign countries	0.001	1.132	0.001	1.157	0.002	1.232
Year dummies	Yes		Yes		Yes	
Industry dummies	Yes		Yes		Yes	
Constant	-3.902***	-15.96	-3.796***	-12.3	-3.714***	-11.95

Observations	10,219	10,105	10,105
R-squared	0.113	0.119	0.124

Notes: ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

The results for **Hypotheses 2-1 and 2-2** are presented in **Table 4**. There is a positive and statistically significant correlation between the ratio of outside directors and the diversifying (new entry) dummy variable, consistent with **Hypothesis 2-1**. This suggests that as the proportion of outside directors and the degree of managerial monitoring increase, firms are more likely to engage in new business entry, and also suggests that managers tend to postpone or avoid such decisions under lower monitoring. The model's pseudo R-squared is 0.065, which is lower than the result for withdrawal, but the former study of Campa and Kedia (2002), who analyzed determinants of diversification, reported an R-squared of 0.08, indicating that this value is within a reasonable range.

From the results of Model (3), the interaction term between the ratio of outside directors and Tobin's q is negatively significant with new entry. This implies that when Tobin's q is low (i.e., investment opportunities are limited), the impact of outside directors' ratio on new entry becomes stronger. This finding aligns with **Hypothesis 2-2**.

To check the robustness of the findings, I replaced the diversification dummy (D) with the total number of segments and also employed a TOBIT model using the proportion of newly entered segments as the dependent variable. In both cases, the results remained consistent with the main findings (Appendix Tables 2 and 3, pp. 15-16). However, when applying a fixed-effects model to control firm-specific unobserved heterogeneity, the results became statistically insignificant (Appendix Table 4, p. 17). This result suggests the possibility that unobservable firm-specific characteristics may be influencing the decision, and the governance effect may not be entirely isolated, but also indicates that firms with limited investment opportunities in existing business segments may find it difficult to enter new businesses, potentially due to self-preserving investment behavior by business units.

In Model (1), the analysis shows that a one-percentage-point increase in the ratio of outside directors raises the probability of new entry by 0.03 percentage points. Given the average new entry probability of 3.37% during the sample period, this corresponds to an increase of approximately 0.9%.

Table 4. PROBIT Model Estimation Results for New Entry (Diversification) in the Following Year

	Diversifying(next year) Model(1)		Diversifying(next year) Model(2)		Diversifying(next year) Model(3)	
VARIABLES	Coefficient	T-statistic	Coefficient	T-statistic	Coefficient	T-statistic
Ratio of outside directors	0.005**	2.289	0.005**	2.306	0.005**	2.357
Tobin q			-0.004	-0.133	0.018	0.546
Interaction term of outside directors and Tobin q					-0.006**	-2.185
ROA	-0.012	-1.598	-0.011	-1.581	-0.012*	-1.676
ROA (1 lag)	-0.015*	-1.836	-0.015*	-1.833	-0.015*	-1.936
ROA (2 lag)	-0.004	-0.553	-0.004	-0.568	-0.004	-0.533
Log of total sales	0.042**	2.352	0.042**	2.333	0.041**	2.284
Investment ／ total sales	0.007**	2.369	0.007**	2.367	0.007**	2.427
Leverage	0	0.515	0	0.547	0	0.375
D	0.335***	5.75	0.335***	5.742	0.332***	5.691
CEO turnover within 3 years	0.095*	1.773	0.094*	1.764	0.092*	1.722
Sales in foreign countries	-0.005***	-3.672	-0.005***	-3.658	-0.004***	-3.589
Year dummies	Yes		Yes		Yes	
Industry dummies	Yes		Yes		Yes	
Constant	-3.563***	-13.04	-3.56***	-12.87	-3.577***	-12.88
Observations	10,219		10,215		10,215	
R-squared	0.065		0.065		0.067	

Notes: ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

5. Conclusion

This paper examines the impact of an increasing proportion of outside directors on Japanese manufacturing firms' withdrawal from existing segments and their entry into new business areas. The main findings regarding business withdrawal are summarized as follows. **Hypothesis 1-1** was empirically supported, indicating that firms with a higher proportion of outside directors are more likely to withdraw from business segments in the subsequent year. **Hypothesis 1-2** was also supported, showing that the effect of outside directors on withdrawal is stronger when sales concentration across segments is lower. These results suggest that, in Japanese manufacturing companies, managers tend to avoid withdrawal from existing segments, especially those with a large share of sales.

Regarding new business entry, the findings are summarized as follows. **Hypothesis 2-1** was empirically supported, showing that firms with a higher ratio of outside directors are more likely to enter new business segments in the subsequent year. **Hypothesis 2-2** was also supported, demonstrating that the effect of outside directors on new entry is stronger when the investment opportunities in existing businesses are limited. These findings imply that managers in Japanese

manufacturing firms, particularly those with limited investment opportunities in existing segments, may be reluctant to enter new businesses.

These results are consistent with the "quiet life" hypothesis proposed by Bertrand and Mullainathan (2003) and Ikeda et al. (2018), which suggests that managers tend to avoid making difficult strategic decisions such as business withdrawal or new entry. The analysis further suggests that managerial inward orientation and protective behavior of business divisions—reflected by difficulties in withdrawing from high-sales segments and reluctance to enter new businesses when investment opportunities are limited—may be linked to agency problems in firms. This implies that managerial attitudes and organizational culture may play significant roles in agency problems.

Although this study focused on the agency problems of Japanese firms and their relation to business withdrawal and new entry, future research should examine whether changes in business portfolios ultimately improve profitability and firm value. Additionally, while this paper emphasized the ratio of outside directors, other corporate governance mechanisms—such as shareholder composition and executive compensation—remain unexplored. Further empirical and practical research is needed to deepen our understanding of agency problems in corporate management and the governance mechanisms designed to mitigate them.

Acknowledgement

I would like to express my sincere gratitude to Professor Yukihiro Yasuda of Hitotsubashi University and the two anonymous referees for their invaluable advice and comments in the preparation of this paper.

References

Ministry of Economy, Trade and Industry [METI] (2014). *Project Report on Building a Sustainable Growth-Oriented Relationship between Companies and Investors (Ito Report)*. Retrieved from https://www.meti.go.jp/policy/economy/keiei_innovation/kigyoukaikei/pdf/itoreport.pdf (in Japanese)

Council of Experts Concerning the Corporate Governance Code (2015). *Preface to the Draft Corporate Governance Code*. Retrieved from https://www.fsa.go.jp/news/26/sonota/20141217-4/01.pdf (in Japanese)

Numagami, M. (2008). *Wakariyasui marketing senryaku (Revised edition)* [Easy-to-Understand Marketing Strategy, New Edition]. Yuhikaku (in Japanese).

Morikawa, M. (2019). *Shagai torishimariyaku to tōshi kōdō, keiei seika* [Outside Directors, Investment Behavior, and Management Performance]. Discussion Paper, RIETI (in Japanese).

Adams, R. B., Hermalin, B. E., & Weisbach, M. S. (2010). “The role of boards of directors in corporate governance: A conceptual framework and survey.” *Journal of Economic Literature*, 48(1), 58–107.

Aggarwal, R. K., & Samwick, A. A. (2003). “Why do managers diversify their firms? Agency reconsidered.” *The Journal of Finance*, 58(1), 71–118.

Berger, P. G., & Ofek, E. (1995). “Diversification’s effect on firm value.” *Journal of Financial Economics*, 37, 39–65.

Bertrand, M., & Mullainathan, S. (2003). “Enjoying the quiet life? Corporate governance and managerial preferences.” *The Journal of Political Economy*, 111(5), 1043–1075.

Byrd, J., & Hickman, K. (1992). “Do outside directors monitor managers? Evidence from tender offer bids.” *Journal of Financial Economics*, 32, 195–221.

Campa, J. M., & Kedia, S. (2002). “Explaining the diversification discount.” *The Journal of Finance*, 57(4), 1731–1762.

Denis, D. J., Denis, D. K., & Sarin, A. (1997). “Agency problems, equity ownership, and corporate diversification.” *The Journal of Finance*, 52(1), 135–160.

Duchin, R., Matsusaka, J. G., & Ozbas, O. (2010). “When are outside directors effective?” *Journal of Financial Economics*, 96(2), 195–214.

Hoechle, D., Schmid, M., Walter, I., & Yermack, D. (2012). “How much of the diversification discount can be explained by poor corporate governance?” *Journal of Financial Economics*, 103(3), 41–60.

Ikeda, N., Inoue, K., & Watanabe, S. (2018). “Enjoying the quiet life: Corporate decision-making by entrenched managers.” *Journal of the Japanese and International Economies*, 47(1), 55–69.

Lang, L. H. P., & Stulz, R. M. (1994). “Tobin’s q, corporate diversification, and firm performance.” *The Journal of Political Economy*, 102(6), 1248–1280.

Rajan, R., Servaes, H., & Zingales, L. (2000). “The cost of diversity: The diversification discount and inefficient investment.” *The Journal of Finance*, 55(1), 35–80.

Servaes, H. (1996). “The value of diversification during the conglomerate merger wave.” *The Journal of Finance*, 51(4), 1201–1225.

Weisbach, M. S. (1988). “Outside directors and CEO turnover.” *Journal of Financial Economics*, 20, 431–460.

Appendix

Appendix Table 1. Correlation Matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) Ratio of outside directors	1											
(2) Log of total sales	0.122	1										
(3) ROA	0.001	0.242	1									
(4) Investment / total sales	0.087	-0.165	-0.143	1								
(5) Leverage	-0.032	0.031	-0.291	0.014	1							
(6) D	0.028	0.287	-0.001	-0.034	0.084	1						
(7) CEO turnover within 3 years	0.034	0.149	-0.017	-0.028	0.05	0.068	1					
(8) HHI of segment earning	-0.033	-0.311	-0.008	0.023	-0.083	-0.694	-0.082	1				
(9) Sales in foreign countries	0.165	0.327	0.068	0.087	0.02	-0.003	0.041	-0.047	1			
(10) Tobin q	0.159	-0.117	0.001	0.171	-0.013	-0.075	-0.057	0.061	0.097	1		
(11) Withdrawal	0.043	0.088	-0.021	0.021	0.04	0.072	0.038	-0.066	0.043	0.002	1	
(12) Diversifying	0.028	0.043	-0.03	0.017	0.036	0.148	0.008	-0.117	-0.008	-0.014	0.234	1

Appendix Table 2. TOBIT Model Results for the Proportions of Segment Exits and New Entries in the Subsequent Fiscal Year

	Rate of withdrawn segment (next year) Model(4)		Rate of diversified segment (next year) Model(5)	
	Coefficient	T-statistic	Coefficient	T-statistic
Ratio of outside directors	0.008***	3.112	0.013***	2.593
HHI of segment earning	0.045	0.276		
Interaction term of outside directors and HHI of segment earning	-0.018**	-2.383		
Tobin q			0.026	0.322
Interaction term of outside directors and Tobin q			-0.015**	-2.182
ROA	-0.009	-0.989	-0.03*	-1.7
ROA (1 lag)	0.002	0.214	-0.032*	-1.663
ROA (2 lag)	-0.022**	-2.477	-0.004	-0.198
Log of total sales	0.054**	2.524	0.086*	1.933
Investment / total sales	0.004	0.937	0.019***	2.627
Leverage	0	0.697	0	0.299
D	0.755***	7.284	0.463***	3.206
CEO turnover within 3 years	0.167***	2.622	0.201	1.519
Sales in foreign countries	0.002	1.139	-0.011***	-3.543
Year dummies	Yes		Yes	
Industry dummies	Yes		Yes	
Constant	-4.137***	-10.25	-8.389***	-10.61
Observations	10,105		10,215	
R-squared	0.0985		0.0431	

Notes: ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Appendix Table 7. PROBIT Model Results for the Likelihood of Segment Exits and New Entries in the Subsequent Fiscal Year

	Withdrawal (next year) Model(6)		Diversification (next year) Model(7)	
	Coefficient	T-statistic	Coefficient	T-statistic
Ratio of outside directors	0.007***	3.113	0.005**	2.234
HHI of segment earning	0.738***	4.141		
Interaction term of outside directors and HHI of segment earning	-0.015**	-2.315		
Tobin q			0.01	0.294
Interaction term of outside directors and Tobin q			-0.006**	-2.176
ROA	-0.005	-0.644	-0.01	-1.442
ROA (1 lag)	0	-0.021	-0.015*	-1.849
ROA (2 lag)	-0.015**	-1.989	-0.004	-0.548
Log of total sales	0.026	1.304	0.024	1.288
Investment / total sales	0.001	0.306	0.007**	2.191
Leverage	0.001	1.143	0	0.531
number of segments	0.337***	11.6	0.126***	6.808
CEO turnover within 3 years	0.128**	2.233	0.092*	1.717
Sales in foreign countries	0.001	1.093	-0.005***	-3.736
Year dummies	Yes		Yes	
Industry dummies	Yes		Yes	
Constant	-4.402***	-13.52	-3.502***	-12.6
Observations	10,105		10,215	
R-squared	0.147		0.0713	

Notes: ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Appendix Table 8. Fixed-Effects Model Results of Multiple Regression Analysis on Segment Exit and Entry in the Subsequent Fiscal Year

	Withdrawal (next year) Model(8)		Diversification (next year) Model(9)	
	Coefficient	T-statistic	Coefficient	T-statistic
Ratio of outside directors	0	1.017	0	0.218
HHI of segment earning	-0.189***	-5.798		
Interaction term of outside directors and HHI of segment earning	0	-0.401		
Tobin q			0.002	0.736
Interaction term of outside directors and Tobin q			0	-0.781
ROA	-0.001	-1.067	0.001	0.789
ROA (1 lag)	0	0.092	-0.001	-1.386
ROA (2 lag)	-0.001	-0.955	0.001	1.127
Log of total sales	-0.002	-0.183	-0.02*	-1.661
Investment / total sales	0	-0.307	0	-0.175
Leverage	0	0.031	0	0.402
D	0.14***	9.588	-0.19***	-13.7
CEO turnover within 3 years	0.005	1.306	0.004	0.99
Sales in foreign countries	0	-0.346	0	0.659
Year dummies	Yes		Yes	
Industry dummies	No		No	
Constant	0.088	0.716	0.303**	2.449
Observations	10,105		10,215	
R-squared	0.026		0.027	

Notes: ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.