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Effect of Corporate Governance on Tobin's Q in Nepalese Commercial Banks

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Abstract

This study examines the effect of corporate governance on Tobin's Q in Nepalese commercial banks. Return on assets and Tobin's Q are selected as the dependent variables. Similarly, board size, audit committee, gender diversity, board independence, institutional ownership and number of meetings are selected as the independent variables. This study is based on secondary data of 15 banks with 105 observations for the study period from 2015/16 to 2021/22. The data were collected from Banking and Financial statistics published by Nepal Rastra bank and the annual reports of respective banks. The correlation coefficients and regression models are estimated to test the significance and importance of corporate governance on Tobin's Q in Nepalese commercial banks.

The study revealed that board size has a positive impact on return on assets. It means that increase in board size leads to increase in return on assets. Similarly, board size has a negative impact on Tobin's Q. It means that increase in board size leads to decrease in Tobin's Q. Likewise, audit committee has a positive impact on return on assets. It shows that large the audit committee size, higher would be the return on assets. In addition, audit committee has a negative impact on Tobin's Q. It shows that large the audit committee size, lower would be the Tobin's Q. Moreover, this study showed gender diversity has a positive impact on return on assets and Tobin's Q. It means that increase in number of female directors in the board leads to increase in return on assets and Tobin's Q. Further, board independence has a positive impact on return on assets and Tobin's Q. It shows that higher the number of independent directors in the board, higher would be the return on assets and Tobin's Q. Likewise, institutional ownership has a positive impact on return on assets and Tobin's Q. It indicates that increase in institutional ownership leads to increase in return on assets and Tobin's Q. Similarly, number of meetings has a positive impact on return on assets and Tobin's Q. It indicates that increase in number of board meetings leads to increase in return on assets and Tobin's Q.

Keywords: Tobin's Q, return on assets, board size, audit committee, gender diversity, board independence, institutional ownership, number of meetings

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1. Introduction

Corporate governance is the process and structure that is used for directing and managing business' affairs in order to enhance business prosperity and corporate accountability with the ultimate objective (Mohamed *et al.,* 2016). Composition and activity of the board of directors refers to the structure and functioning of the governing body responsible for overseeing and guiding the strategic decisions and operations of an organization. This encompasses the individuals who constitute the board, their qualifications, diversity, and roles, as well as the processes and activities they engage in to exercise their oversight and strategic influences (Judge and Zeithaml, 1992). Effective corporate governance reduces the control rights shareholders confer on managers, increasing the probability that managers invest in positive net present value projects. Corporate governance (CG) also has tendency to affect the decision which are very long term in the organization. The fundamental objective of corporate governance is to enhance transparency and transparency enhance accountability along with growth. Firms' governance plays an important role in the probability of accounting frauds and firms which have a weak governance structure being more prone to accounting frauds (Berkman *et al.,* 2009). Corporate governance is a modern corporate management model which is believed to bring change for better bank management in facing current and future challenges marked by intense competition between banks in winning customer trust and developing bank business.

Good governance is an effort to protect the interests of stakeholders and improve compliance with applicable laws and regulations as well as ethical values that apply in general to the Islamic banking industry. Corporate governance is also part of a mechanism that aims to prove the performance of companies and financial institutions. According to Boudiab (2017), audit committee independence and meeting have a positive significant with the performance. However, the size of the audit committee has an insignificant relation with the performance. Lestari *et al.* (2021) examined the impact of extensible business reporting language (XBRL) adoption on financial reporting timeliness. The results revealed that extensible business reporting language adoption positively affects financial reporting timeliness. ROA is also used to evaluate the competence and operational performance of banks as it examines the profits generated from the assets invested by the bank (Goaied, 2008). The return on assets (ROA) compares income with total assets (equivalently, total liabilities and equity capital). It can be interpreted in two ways. First, it measures management's ability and efficiency in using the firm's assets to generate operating profits. Second, it reports the total return accruing to all providers of capital (debt and equity), independent of the source of capital (Nimer *et al.,* 2015). Return on assets is a ratio calculated by dividing the net income over total assets. ROA have been used in most of the studies for the measurement the profitability of the banks. ROA measures the profit earned per dollar of assets and reflect how well bank measurement uses the bank's real investment resource to generate profits (Naceur, 2002).

Independent directors are more likely to be vigilant in detecting and preventing earnings management practices. These practices are designed to artificially inflate or deflate earnings, and they can mislead investors about the true financial health of a company. Terjesen *et al.* (2009) revealed certain psychological traits often associated with women, such as empathy, sensitivity, and concern for the well-being of others, have been shown to translate into socially oriented behaviors. Moreover, Dezso and Ross (2012) found that women's propensity to adopt participative communication, democratic decision-making, and process-oriented work styles can foster stakeholder engagement and meet their expectations. Companies with more independent boards are often seen as being better governed and more transparent. This can enhance their reputation and make them more attractive to investors and customers. Similarly, Di Guo *et al.* (2019) stated that board gender diversity is associated with more extensive social and environmental reporting and a decrease in environmental lawsuits. Furthermore, Wang *et al.* (2018) stated that number of studies offer inconsistent results, reporting either weak statistically significant positive impact. Blose and Shieh (1997) found that there is a significant positive relation between Tobin's q-ratio and the magnitude of stock market reaction to capital investment announcements. Further, Perfect and Wiles (1994) showed that Tobin's q and the market value of firms divided by book value of assets (our proxy for the q ratio) are highly correlated. According to Erhardt *et al.* (2003), a minimum of three women directors is necessary to exert significant influence on board activities. Garcia and Martinez (2021) revealed that the critical mass of women directors required to trigger substantial changes in group culture and performance may differ depending on the company's size and stage of development. Smaller firms may experience a more pronounced impact from even a smaller number of women directors, while larger organizations might require a higher threshold for significant change.

Board independence can help to reduce agency costs, which are the costs that arise from the separation of ownership and control in corporations.

When managers control the day-to-day operations of a company, there is a risk that they will act in their own interests rather than in the best interests of shareholders. A more independent board can help to align the interests of managers and shareholders by ensuring that management is held accountable for its actions. According to Mohamed *et al.* (2016), board meeting is positively related to return on equity. Grove *et al.* (2011) revealed that the frequency of board meetings is positively associated with financial performance. According to Gafoor *et al.* (2018), board meeting is positively related to return on assets. Carter *et al.* (2015) stated that smaller boards might suffer from limited diversification, translating into higher workloads and potentially undermining their effectiveness. Adams *et al.* (2010) stated that independence is a commonly adopted measure for board structure, with its prominence arising from its role in effective board monitoring and alignment of firms' strategic policies with stakeholders' interests. Johari *et al.* (2008) indicated that the minimum composition of the independent director by the Malaysia Code of Corporate Governance is still not adequate enough to monitor the management. Kedia and Batra (2019) suggested that audit committees play a significant role in influencing the social responsibility disclosure practices of firms. Their monitoring and oversight functions provide assurance to stakeholders about the authenticity and transparency of environmental and social reports. Kent and Stewart (2008) showed that companies with greater audit committee effective in the responsibility of monitoring and reporting, so as to increase the disclosure of CSR. In addition, the audit committee meeting also showed that a meeting which is more often tending to find differences and improve the disclosure of CSR. Katmon *et al.* (2019) indicated that audit committee size will increase the quality of CSR because the management audit committee can help in providing information on, higher quality the audit committee meeting and have no influence on CSR. Mahdi and Abbes (2018) found that profitability of the bank (measured by ROA) is positively related to capital and also positively affects the bank liquidity. Similarly, Ehiedu (2014) stated that there is a significant positive correlation between current ratio and profitability as measured by return on assets (ROA).

In the context of Nepal, Rajbahak *et al.* (2014) showed that there is a significant impact of corporate governance on ROA as well as ROE in Nepalese commercial banks. The study also showed that board size, firm size and firm growth have positive and significant impact on return on assets but insignificant impact on return on equity. Similarly, Poudel and Hovey (2013) showed that bigger board and audit committee size and lower frequency of board meeting and lower proportion of institutional ownership led to better efficiency in the commercial banks. Goet (2022) examined the impact of many bank-specific characteristics on the financial performance of listed commercial banks in Nepal. The study discovered a link between board size, business size, foreign ownership and credit-to-deposit ratio with financial performance. Paudel and Hovey (2013) investigated the impact of corporate governance on efficiency of Nepalese commercial banks. The results showed that the foreign and institutional ownership have different influence on banks. Devkota *et al.* (2022) examined the impact of corporate governance and ownership structure on the performance of Nepalese commercial banks. The study also showed that board independence, government ownership, firm size, board size and firm age have positive impact on performance of banks. Likewise, Amatya *et al*. (2014) observed that better corporate governance leads to better financial performance. Corporate governance variables such as board size, board diligence, board independence, ownership structure and internal controls and control variables such as bank age, bank size, leverage, market return and capital adequacy ratio affect the banking performance (Lamichhane, 2018).

The above discussion shows that empirical evidences vary greatly across the studies on effect of corporate governance on Tobin's Q in commercial bank. Though there are above mentioned empirical evidences in the context of other countries and in Nepal, no such findings using more recent data exist in the context of Nepal. Therefore, in order to support one view or the other, this study has been conducted.

The main purpose of the study is to analyze effect of corporate governance on Tobin's Q in Nepalese commercial banks. Specifically, it examines the relationship of board size, audit committee, gender diversity, board independence, institutional ownership and number of meetings with return on assets and Tobin's Q in Nepalese commercial banks.

The remainder of this study is organized as follows. Section two describes the sample, data and methodology. Section three presents the empirical results and the final sections draws the conclusion.

2. Methodological aspects

The study is based on the secondary data which were gathered from 15 commercial banks for the period from 2015/16-2021/22, leading to a total of 105 observations. The study employed stratified sampling method. The main sources of data include Banking and Financial Statistics published by Nepal Rastra Bank, reports published by Ministry of Finance and annual report of respective banks. This study is based on descriptive as well as causal comparative research designs. Table 1 shows the list of commercial banks selected for the study along with the study period and number of observations.

Table 1

List of banks selected for the study along with study period and number of observations

S. No.	Name of Commercial Bank	Study Period	Observations
1	Nabil Bank Limited	2014/15 - 2020/21	7
2	Standard Chartered Bank Nepal Limited	2015/16 - 2021/22	7
3	Himalayan Bank Limited	2015/16 - 2021/22	7
4	Nepal SBI Bank Limited	2015/16 - 2021/22	7
5	Everest Bank Limited	2015/16 - 2021/22	7
6	Prime Commercial Bank Limited	2015/16 - 2021/22	7
7	Sanima Bank Limited	2015/16 - 2021/22	7
8	Machhapuchchhre Bank Limited	2015/16 - 2021/22	7
9	NIC Asia Bank Limited	2015/16 - 2021/22	7
10	Rastriya Banijya Bank Limited	2015/16 - 2021/22	7
11	Nepal Bank Limited	2015/16 - 2021/22	7
12	Agricultural Development Bank Limited	2015/16 - 2021/22	7
13	NMB Bank Limited	2014/15 - 2020/21	7
14	Mega Bank Nepal Limited	2015/16 - 2020/22	7
15	Nepal Investment Bank Limited	2015/16 - 2020/22	7
Total Observations			**105**

Thus, the study is based on 105 observations.

The model

The model estimated in this study assumes that the bank's Tobin's Q depends on corporate governance mechanism. The dependent variables selected for the study are return on assets and Tobin's Q. Similarly, the selected independent variables are board size, audit committee, gender diversity, board independence, institutional ownership and number of meetings. Therefore, the model takes the following form:

$$ROA = \beta_0 + \beta_1 BS + \beta_2 AC + \beta_3 GD + \beta_4 BI + \beta_5 IOW + \beta_6 NM + e$$

$$TQ = \beta_0 + \beta_1 BS + \beta_2 AC + \beta_3 GD + \beta_4 BI + \beta_5 IOW + \beta_6 NM + e$$

Where,

ROA= Return on assets as measured by the ratio of net income to total assets, in percentage.

TQ= Tobin's Q as measured by the market value to total assets.

BS= Board size as measured by the number of board members, in numbers.

AC= Audit committee as measured by the number of audit members, in numbers.

GD= Gender diversity as measured by the number of female directors in the board of directors, in numbers.

BI= Board independence as measured by the number of independent directors on the board, in numbers.

IOW= Institutional ownership as measured by ownership hold by institution, in percentage.

NM = Numbers of meetings, in numbers.

The following section describes the independent variables used in this study along with hypothesis formulation.

Board size

Adam (2003) found a statistically significant positive relationship between board size and performance. However, larger board of directors is harmful to firms' performance (Switzer and Tang, 2009). Larger boards are more likely to have a greater diversity of perspectives and expertise. This can help the board to make more informed decisions, which can lead to improved financial performance. Additionally, larger boards may be more effective in monitoring management's activities and preventing opportunistic behavior, which can also lead to improved ROA. Arora (2012) found that board directors' size has a positive impact on firms' performance. Huther (1997) revealed a negative board size effect on firm performance. Likewise, Eisenberg *et al.* (1998) found a negative relationship between board size and firm valuation for a sample of small Finnish firms. Based on it, this study develops the following hypothesis:

H_1: There is a positive relationship between board size and return on assets.

H_1: There is a positive relationship between board size and Tobin's Q.

Board independence

Nguyen *et al.* (2017) revealed that independent directors have an overall negative effect on firm operating performance. Similarly, Switzer and Tang (2009) found that degree of board independence positively correlates with firms' performance. Independent directors are more likely to be objective and unbiased in their oversight of management. They are less likely to be beholden to management or influenced by personal relationships. This allows them to provide more effective monitoring of management's activities and hold management accountable for its performance. Likewise, Chatterjee (2011) found that board independence insignificantly impacts all types of companies. Further, Agrawal and Knoeber (1996) found that there is a positive association between firms' value and board directors. There is a low positive association between board composition and financial performance (Rhoades *et al.,* 2017). Based on it, this study develops the following hypothesis:

H_2: There is a positive relationship between board independence and return on assets.

H_2: There is a positive relationship between board independence and Tobin's Q.

Numbers of meetings

Johl *et al.* (2015) stated that board meetings have a diverse impact on firms' performance. Vafeas (1999) stated that more frequent meetings allow the board to more effectively monitor management's activities, make more informed decisions, and hold management accountable for its performance. Additionally, more frequent meetings can help to foster a more engaged and cohesive board, which can lead to better governance and improved performance. Furthermore, Laksmana (2008) argued that board meetings allow the directors to share more information and viewpoints, improving the decision-making process and ensure legitimacy of all stakeholder expectations in a dynamic business environment. Conger *et al.* (1998) concluded that a high frequency of meetings allows the directors better oversight of firm operations and is beneficial to shareholders, so the number of meetings is an important resource in improving the effectiveness of a board. Based on it, this study develops the following hypothesis:

H_3: There is a positive relationship between numbers of meetings and return on assets.

H_3: There is a positive relationship between numbers of meetings and Tobin's Q.

Audit committee

Kajola (2008) revealed that there is no relation between audit committee's size and firm performance. Kedia and Batra (2019) revealed that audit committees hold a substantial role in shaping firms' social responsibility disclosure practices. They are pivotal in monitoring and overseeing environmental and social reporting authenticity, thus assuring stakeholders of transparency. The efficacy of audit committees in driving corporate social responsibility (CSR) reporting has gained prominence. Audit committee members must be qualified holders and have the experience in the field of auditing (Aldamen *et al.,* 2012). The study found that small audit committee size that consists of well-experienced members and financial expertise have positive impact on firms' performance. Based on it, this study develops the following hypothesis:

H_4: There is a positive relationship between audit committee and return on assets.

H_4: There is a positive relationship between audit committee and Tobin's Q.

Institutional ownership

Filsaraei and Mogaddham (2016) stated that institutional ownership reduces the financial distress. Davis (2003) showed that institutional investors enhance financial system stability although they may sporadically exacerbate market volatility or liquidity problems. Mizuno (2010) found that there is not a statistically significant difference between institutional investors' shareholdings and firm performance. Institutional ownership has positive significant effect on firm performance (Fazlzadeh *et al.,* 2011). Based on it, this study develops the following hypothesis:

H_5: There is a negative relationship between institutional ownership and return on assets.

H_5: There is a negative relationship between institutional ownership and Tobin's Q.

Gender diversity

Yasser (2012) showed that to bring global economy back on track women and diverse companies contribute more because of women are more risk- averse. Similarly, Torchia *et al.* (2011) indicated that the ability of women to influence board decision seems to increase with their numbers particularly for boards with more than one woman or three women. Terjesen *et al.* (2016) found that firms with more female directors have higher firm performance by market (Tobin's Q) and accounting (return on assets) measures. Similarly, Belaounia *et al.* (2020) concluded that firms with higher female board representation exhibit higher overall performance, less earnings management and less excessive risk taking in which all three relations are stronger in countries with greater gender equality. Likewise, Likewise, Green and Homroy (2018) demonstrated a robust positive effect of female board representation on firm performance. Based on it, this study develops the following hypothesis:

H_6: There is a positive relationship between gender diversity and return on assets.

H_6: There is a positive relationship between gender diversity and Tobin's Q.

3. Results and discussion

Descriptive statistics

Table 2 presents the descriptive statistics of selected dependent and independent variables during the period 2015/16-2021/22.

Table 2

Descriptive statistics

This table shows the descriptive statistics of dependent and independent variables of 15 Nepalese commercial banks for the study period 2015/16-2021/22. The dependent variables are ROA (Return on assets as measured by the ratio of net income to total assets, in percentage) and TQ (Tobin's Q as measured by the market value to total assets). The independent variables are BS (Board size as measured by the number of board members, in numbers), BI (Board independence as measured by the number of independent directors on the board, in numbers), NM (Numbers of meetings, in numbers), AC (Audit committee as measured by the number of audit members, in numbers), IOW (Institutional ownership as measured by ownership hold by institution, in percentage) and GD (Gender diversity as measured by the number of female directors in the board of directors, in numbers).

Variables	Minimum	Maximum	Mean	S.D.
ROA	0.00	2.21	0.39	0.68
TQ	0.00	1.35	0.47	0.03
BS	5.00	11.00	7.52	1.35
BI	0.00	1.00	0.47	0.50
NM	5.00	11.00	6.84	1.06
AC	1.00	5.00	3.27	0.79
IOW	0.23	17.990	1.06	0.24
GD	0.00	2.00	0.58	0.55

Correlation analysis

Having indicated the descriptive statistics, Pearson's correlation coefficients are computed and the results are presented in Table 3.

Table 3

Pearson's correlation coefficients matrix

This table shows the bivariate Pearson's correlation coefficients of dependent and independent variables of 15 Nepalese banks for the study period 2015/16-2021/22. The dependent variables are ROA (Return on assets as measured by the ratio of net income to total assets, in percentage) and TQ Tobin's Q as measured by the market value to total assets). The independent variables are BS (Board size as measured by the number of board members, in numbers), BI (Board independence as measured by the number of independent directors on the board, in numbers), NM (Numbers of meetings, in numbers), AC (Audit committee as measured by the number of audit members, in numbers), IOW (Institutional ownership as measured by ownership hold by institution, in percentage) and GD (Gender diversity as measured by the number of female directors in the board of directors, in numbers).

Variables	ROA	TQ	BS	BI	NM	AC	IOW	GD
ROA	1							
TQ	0.511**	1						
BS	0.311**	-0.060	1					
BI	0.643**	0.020	0.325**	1				
NM	0.164*	0.070	0.032**	0.125**	1			
AC	0.071	-0.112	0.251**	0.284**	0.283**	1		
IOW	0.081	0.032	-0.009**	-0.049**	-0.172**	-0.618**	1	
GD	0.597**	0.191*	0.012**	0.324**	0.262**	0.131**	0.036**	1

Note: The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent levels respectively.

Table 3 shows that board size has a positive relationship with return on assets. It means that increase in board size leads to increase in return on assets. Likewise, board independence has a positive relationship with return on assets. It means that increase in independent directors leads to increase in return on assets. Further, this study shows that there is a positive relationship between numbers of meetings and return on assets. It means that increase in numbers of board meetings leads to increase in return on assets. In addition, audit committee size has a positive relationship with return on assets. It means that increase in audit committee leads to increase in return on assets. Furthermore, there is a positive relationship between institutional ownership return on assets. It indicates that increase in institutional ownership leads to increase in return on assets. Similarly, gender diversity has a positive relationship with return on assets. It implies that increase in female board directors in the board leads to increase in return on assets.

On the other hand, the result also shows that board size has a negative relationship with Tobin's Q. It means that increase in board size leads to decrease in Tobin's Q. Likewise, board independence has a positive relationship with Tobin's Q. It means that increase in independent directors leads to increase in Tobin's Q. Further, this study shows that there is a positive relationship between Numbers of meetings and Tobin's Q. It means that increase in Numbers of meetings leads to increase in Tobin's Q. In addition, audit committee size has a negative relationship with Tobin's Q. It means that increase in audit committee leads to decrease in Tobin's Q. Furthermore, there is a positive relationship between Institutional ownership Tobin's Q. It indicates that increase in Institutional ownership leads to increase in Tobin's Q. Similarly, Gender diversity has a positive relationship with Tobin's Q. It implies that increase in female board directors in the board leads to increase in Tobin's Q.

Regression analysis

Having indicated the Pearson's correlation coefficients, the regression analysis has been carried out and results are presented in Table 4 and Table 5. More specifically, Table 5 shows the regression results of board size, audit committee, gender diversity, board independence, institutional ownership and number of meetings with return on assets and Tobin's Q in Nepalese commercial banks.

Table 4

Estimated regression results are of board size, audit committee, gender diversity, board independence, institutional ownership and number of meetings on return on assets

The results are based on panel data of 15 Nepalese commercial banks with 105 observations for period 2015/16-2021/22 by using linear regression model. The model is ROA = $\beta_0 + \beta_1$ BS+ β_2AC+ β_3GD+ β_4BI + β_5IOW + β_6NM +e where dependent variable is ROA (Return on assets as measured by the ratio of net income to total assets, in percentage). The independent variables are BS (Board size as measured by the number of board members, in numbers), BI (Board independence as measured by the number of independent directors on the board, in numbers), NM (Numbers of meetings, in numbers), AC (Audit committee as measured by the number of audit members, in numbers), IOW (Institutional ownership as measured by ownership hold by institution, in percentage) and GD (Gender diversity as measured by the number of female directors in the board of directors, in numbers).

Model	Intercept	Regression coefficients of						Adj. R_bar^2	SEE	F-value
		BS	BI	NM	AC	IOW	GD			
1	0.9671 (0.022)	0.199 (0.003)						0.088	0.650	11.006
2	0.197 (0.001)		0.027 (0.006)					0.007	0.524	72.638
3	0.427 (0.000)			0.450 (0.094)				0.317	0.675	2.836
4	0.445 (0.000)				0.097 (0.482)**			0.605	0.682	0.527
5	0.429 (0.000)					0.002 (0.437) **		0.473	0.682	0.673
6	0.018 (0.808)						0.903 (0.026)	0.350	0.549	56.942
7	0.302 (0.382)	0.078 (0.129)	0.025 (0.001)	0.257 (0.219)				0.417	0.520	25.785
8	0.492 (0.179)	0.090 (0.081)	0.026 (0.001)	0.148 (0.500)	0.172 (0.131)			0.424	0.516	20.170
9	-0.323 (0.438)	0.081 (0.122)	0.025 (0.001)	0.262 (0.311)	0.067 (0.714)	0.003 (0.399)		0.423	0.517	16.234
10	0.587 (0.099)	0.096 (0.032)	0.018 (0.001)	0.091 (0.676)	0.073 (0.617)	0.004 (0.204)	0.677 (0.002)	0.590	0.436	25.895

Notes:

i. Figures in parenthesis are t-values.

ii. The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent level respectively.

iii. Return on asset is the dependent variable.

Table 4 shows that the beta coefficients for board size are positive with return on assets. It indicates that board size has a positive impact on return on assets. This finding is consistent with the findings of Adam (2003). Further, the beta coefficients for board independence are positive with return on assets. It indicates that board independence has a positive impact on return on assets. This finding is similar to the findings of Switzer and Tang (2009). Similarly, the beta coefficients for numbers of meetings are positive with return on assets. It indicates that numbers of meetings have a positive impact on return on assets. This finding is consistent with the findings of Conger *et al.* (1998). Moreover, the beta coefficients for audit committee are positive with return on assets. It indicates that audit committee has a positive impact on return on assets. This finding is similar to the findings of Chatterjee (2011). Likewise, the beta coefficients for gender diversity are positive with return on assets. It indicates that gender diversity has a positive impact on return on assets. This finding is inconsistent with the findings of Terjesen *et al.* (2016).

Table 5 shows the eestimated regression results of board size, audit committee, gender diversity, board independence, institutional ownership and number of meetings on Tobin's Q in Nepalese commercial banks.

Table 5

Estimated regression results of board size, audit committee, gender diversity, board independence, institutional ownership and number of meetings on Tobin's Q

The results are based on panel data of 15 Nepalese commercial banks with 105 observations for period 2015/16-2021/22 by using linear regression model. The model is TQ = $\beta_0 + \beta_1$ BS+ β_2 AC+ β_3 GD+ β_4 BI + β_5 IOW + β_6 NM +e where dependent variable is TQ (Tobin's Q as measured by the market value to total assets). The independent variables are BS (Board size as measured by the number of board members, in numbers), BI (Board independence as measured by the number of independent directors on the board, in numbers), NM (Numbers of meetings, in numbers), AC (Audit committee as measured by the number of audit members, in numbers), IOW (Institutional ownership as measured by ownership hold by institution, in percentage) and GD (Gender diversity as measured by the number of female directors in the board of directors, in numbers).

Model	Intercept	Regression coefficients of						Adj. R_bar^2	SEE	F-value
		BS	BI	NM	AC	IOW	GD			
1	16.131 (6.246)**	-0.256 (0.688)						0.004	4.333	0.473
2	10.608 (0.855)		4.26 (0.304)					0.008	4.340	0.092
3	14.25 (7.924)**			0.04 (0.072)				0.009	4.342	0.005
4	14.672 (31.528)**				-1.07 (1.211)			0.004	4.315	1.467
5	14.046 (16.13)**					0.015 (0.426)		0.007	4.339	0.181
6	16.073 (18.09)**						2.104 (2.127)*	0.029	4.261	4.523
7	11.704 (0.934)	-0.268 (0.713)	5.092 (0.361)					0.012	4.350	0.301
8	14.421 (8.011)**			0.081 (0.145)	-1.078 (1.213)			0.004	4.333	0.738
9	15.679 (13.676)**					0.019 (0.546)	2.133 (2.147)*	0.023	4.273	2.397
10	16.932 (1.291)	-0.416 (1.078)	1.77 (0.123)	0.119 (0.206)	-1.339 (1.485)	0.03 (0.861)	2.430 (2.386)**	0.019	4.283	1.377

Notes:

i. Figures in parenthesis are t-values.

ii. The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent level respectively.

iii. Tobin's Q is the dependent variable.

Table 5 shows that the beta coefficients for board size are negative with Tobin's Q. It indicates that board size has a negative impact on Tobin's Q. This finding is consistent with the findings of Huther (1997). Further, the beta coefficients for board independence are positive with Tobin's Q. It indicates that board independence has a positive impact on Tobin's Q. This finding is similar to the findings of Agrawal and Knoeber (1996). Similarly, the beta coefficients for numbers of meetings are positive with Tobin's Q. It indicates that numbers of meetings have a positive impact on Tobin's Q. This finding is consistent with the findings of Laksmana (2008). Moreover, the beta coefficients for audit committee are negative with Tobin's Q. It indicates that audit committee has a negative impact on Tobin's Q. This finding contradicts with the findings of Kajola (2008). Likewise, the beta coefficients for gender diversity are positive with Tobin's Q. it indicates that gender diversity has a positive impact on Tobin's Q. This finding is inconsistent with the findings of Belaounia *et al.* (2020).

4. Summary and conclusion

Tobin's q ratio is extensively used in the financial literature as a proxy for future investment opportunities. Tobin's q ratio is used to determine the relationship between diversification and firm performance. Corporate governance can be defined as the process and structure that is used for directing and managing business' affairs in order to enhance business prosperity and corporate accountability with the ultimate objective

This study attempts to analyse the effect of corporate governance on Tobin's Q in Nepalese commercial banks. The study is based on secondary data of 15 banks with 105 observations for the period from 2015/16-2021/22.

The study showed that gender diversity, board independence, institutional ownership and number of meetings have positive impact on return on assets and Tobin's Q. Similarly, board size and audit committee have a negative impact on Tobin's Q. The study concluded that audit committee followed by institutional ownership is the most influencing factor that explains the changes in return on assets in Nepalese commercial banks. Likewise, the study concluded that gender diversity followed by numbers of meetings is the most dominant factor that explains the changes in Tobin's Q in Nepalese commercial banks.

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