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Board Gender Diversity and Tax Avoidance in Pakistan: A Comparison of Shariah Compliant and Non-Shariah Compliant Firms

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Abstract

Corporate tax avoidance has emerged an important regulatory issue around the globe, where the issue seems to be more severe for developing countries like Pakistan due to poor regulatory and institutional controls. Literature on the determination of corporate tax avoidance highlights the role of board gender diversity to curtail corporate tax avoidance. Considering these notions, this study investigates whether board gender diversity could improve corporate tax avoidance or not. Considering data from 231 Shariah Compliant and 33 Non-Shariah Compliant firms for six years, this study find that board gender diversity has negative influence on the corporate tax avoidance for only Shariah Compliant firm in Pakistan, whereas variables of audit committee size, and board independence had a negative but weak influence on corporate tax avoidance in Non-Shariah Compliant firms of Pakistan. This study argues that improving gender diversity in the board of Shariah Compliant firms could force these firms to lower their tax avoidance.

Keywords: Gender Diversity, Tax Avoidance, Shariah Compliant, Non-Shariah Compliant.

INTRODUCTION

Tax avoidance has emerged a major issue in modern globalized world, where business activity is dominated by large multinational corporations (MNCs). Large MNCs like Amazon, Starbucks, Apple and the like employ various legal mechanisms to avoid paying their due share of taxes. Such large MNCs have more resources available at their disposal. Therefore, these firms can avail tax consultancies to avoid and evade taxes (Mitchell & Sikka, 2011; Zhang et al., 2022). MNCs also have access to offshore tax heavens, which plays an instrumental role in their tax evasions (Taylor & Richardson, 2015). Evidence suggests that MNCs opt to avoid taxes in both developed and developing countries around the globe (Cobham & Janský, 2018; Delgado et al., 2023; Crivelli et al., 2016; Sikka, 2018). Such tendencies of MNCs have become a cause of concern even in the most advanced economies like USA (Barrera & Bustamante, 2018). Desai and Dharmapala (2006) argued that tax avoidance could be complementary to managerial opportunism and rent extraction, particularly in firms with opaque disclosure mechanism. These notions suggest that managers are able to divert firm's resources for personal gains in the name of tax planning. Thus, rent extraction is masked as tax avoidance in the firms with lower-level transparency (Wang, 2011). Considering these notions, Luo et al. (2024) has noted that tax avoidance could cause the value of the firm to decline. In agency theory perspective, managers indulge in tax avoidance for private rent extraction. However, tax avoidance activities have potential to increase corporate risk. Christensen et al.

(2015) highlighted four types of risks associated with tax avoidance: tax risks, reputational risks, political risks, and other risks. Tax risks rate to the probability that regulators may force the firm to pay taxes, that were avoided in the first place, along with the fines the penalties. Wilson (2009) noted that these additional costs could be substantial. Secondly, tax avoidance may result in loss of reputation (Chen et al., 2014; Christensen et al., 2015), which may result in consumer backlash (Hanlon & Selmrod, 2009). Thirdly, public response on tax avoidance may force politicians to take some regulatory or legislative action, harming the firm's interests (Christensen et al., 2015). Lastly, other risks may also be materialized due to tax avoidance. This risk may include inability to the firm to transfer profits to home country (Christensen et al., 2015), greater probability of earnings management (Basheer et al.,2020), higher cost of capital (Lambert et al., 2007), and higher agency costs (Chen et al., 2014). Apart from these risks, tax evasion activities lead the firm to indulge in suboptimal growth decisions, where firms intentionally miss growth opportunities to remain small in size.

Such small size enables these firms to evade taxes and remain invisible in formal economy (Abdixhiku et al., 2017; Nur-Tegin, 2008). Lastly, firms evading taxes tend to divert resources in expensive activities like paying additional consultancy fees, establishing subsidiaries, and relocating to tax heavens (Selmord, 2007; Taylor et al., 2015). Thus, managers maybe extracting rent through tax avoidance activities, which might have costly implications for the firm and its value (Drake et al., 2019; Nebie 7 Cheng, 2023; Luo et al., 2024). Modern corporations are witnessing an increasing number of females in managerial and leadership roles (Gormley et al., 2023). Literature has argued that females in the board of directors are presumed to be more ethical (Ho et al., 2015), improve board oversight (Adam & Ferreira, 2009; Riguen et al., 2021), and are risk averse (Thee et al., 2020). Thus, presence of female director in the board is associated with lower levels of tax avoidance (Jarboui et al., 2020; Rhee et al., 2020). Considering these notions, this study investigates the role of tax disclosure and gender diversity in board on tax avoidance in large corporations.

Theory and Hypotheses Development

Tax avoidance

Early studies on tax avoidance were concentrated on the individuals and their tendencies to evade tax (Selmrod & Yitzhaki, 2002). Rice (1992), for the very first time, empirically analysed tax behaviour of corporations. They found early evidence of association of profitability with tax behaviour, where managers may resort to tax non-compliance on falling short to meet earning expectations. Subsequently, tax avoidance was described within theoretical framework of agency theory. Originally, agency theory describes conflict of interest between managers and shareholders of the firm, where managers being agents of shareholder may make wasteful decisions that are not consistent with the larger interests of the shareholders. The theory describes that managers are indulged in opportunistic behaviour, where they try to seek private benefits by sacrificing value of the firm (Jensen & Meckling, 1976). Rhee et al. (2020) argued that there could be two perspectives of agency view of tax avoidance. Under first view, managers act as agents to the shareholders, where managers indulge in tax avoidance to benefit shareholders and increase their wealth. Under second view, managers use tax avoidance to extort personal benefits. This view argues that although managers are able to use tax avoidance to reduce cash outflow in the short run, such behaviour has negative implications for sustainability of the firm in the long run. Under this view, tax avoidance increases the risk of litigation, whereas reputation of the firm may also be compromised as a consequence. Thus, managers may show off their performance in the short run, firm has to pay for this agency cost in the long run. Desai and Dharmapala (2007) highlighted that tax avoidance may stem as a complimentary decision for managerial diversion to seek self-interest. Thus, managers interested in opportunistic tax extraction may pursue tax avoidance strategies for self-serving interests (Desai et al., 2007). Thus, under this view tax avoidance may only benefit managers, while compromising long run sustainability of the corporate firm. Considering this notion, reducing tax avoidance could be beneficial to mitigate agency cost and improve long term sustainability of the firm. Literature has argued that transparency could mitigate tax avoidance (Dutt et al., 2019; Hoopes et al., 2018; Sikka, 2018). Subsequently, it has also been argued that proportion of females on the board has a significant impact on tax planning behaviour of managers (Rhee et al., 2020). Srinidhi et al. (2011) found that female presence on the board improves earning quality in corporate firms, while Groom (2009) argued that presence of females in the board enhances monitoring ability of the board in corporate firms. Considering these notions if could be argued that female presence on the board of directors could play its part to mitigate agency conflict and also reduce tax avoidance. Thus, this study considers the role of female director as an enhancer of impact of tax disclosure.

Gender diversity and tax avoidance

There has been an increasing trend to employee females in board of directors of large corporations worldwide. It has also been found that female directors play an instrumental role in improving monitoring mechanism (Adam & Ferreira, 2009; Groom, 2009; Srinidi et al., 2011). Riguen et al. (2021) premised that female directors are more conscious about the audit process. Thus, it could be argued that presence of females on the board mitigate agency conflict in corporate firms. Previous studies have argued that women are more risk averse and exhibit a more conservative behaviour compared to men (Rhee et al., 2020). Further, Kastlunger et al. (2010) have argued that women depict a relatively higher compliance to tax obligations compared to men.

Previously, Fallan (1999) argued that women board presence results in enhancement of spiritual value of the firm. Such firms are expected to comply with ethical behaviour and avoid tax avoidance. Francis et al (2014) also depicted that female CFO show lower levels of tax aggression compared to their male counterparts. Jarboui et al. (2020) also noted that board gender diversity is associated with long term sustainability of businesses. Considering these notions, it could be argued that women have a more ethical and sustainable behaviour compared to men, leading them to influence the board to avoid dubious practices, such like tax avoidance. There has been consistent evidence where women presence on the board was associated with lower levels of corporate tax avoidance.

Hoseini et al. (2019) showed consistent evidence that women presence on the board results in lower levels of corporate tax avoidance, where such relationship was stronger for large corporations. Richardson et al. (2016) also documented lower tax aggression in firms having higher board gender diversity. Lenis et al. (2017) also noted same for sample of US corporations. Jarboui et al. (2020) noted that increase in number of women in the board reduces risk of tax avoidance, and improves sustainability prospects of a corporate firm. Rhee et al. (2020) generally related lower levels of tax avoidance to higher levels of corporate sustainability. Likewise, Widuri et al. (2020) supported the same negative implications of board gender diversity for tax avoidance and positive for sustainability performance of firm. Conflicting evidence was found by Chang et al. (2019), who noted that tax avoidance behaviour of men and women CEOs was alike in China. These findings are in contract with the findings of developed countries in the West. Considering these notions, a non-directional hypothesis was specified with regard to relationship of gender with tax avoidance.

H_1. Board gender diversity has a significant impact on tax avoidance.

Research Methodology

Model of the study

Following theoretical premises explained and proposed in this study, this study uses tax avoidance as dependent variables, while tax disclosure and board gender diversity were considered as explanatory variables. Further, this study also includes interaction term of tax disclosure and board gender diversity in the model to sought out moderating impact of board gender diversity for the relationship between tax disclosure and tax avoidance. Lastly, firm size is also included in the model as control variable to account for size differentials. Thus, following the empirical model estimated in this study:

$$TAX_{it} = ß_o + ß_1\ GEND_{it} + ß_2\ ROA_{it} + ß_3\ SZ_{it} + ß_4\ LEV_{it} + ß_5\ BSZ_{it} + ß_6\ BIND_{it} + ß_7\ AUDITC_{it} + ß_8\ AUDITQ_{it} + ß_9\ Tax_{it-1} + \mu_{it}$$

Where

TAX_{it} = Tax avoidance of i firm at t time

$GEND_{it}$ = Board gender diversity of i firm at t time

ROA_{it} = Return on assets of i firm at t time

SZ_{it} = Firm size of i firm at t time

LEV_{it} = Leverage of i firm at t time

BSZ_{it} = Board size of i firm at t time

$BIND_{it}$ = Board independence of i firm at t time

$AUDITC_{it}$ = Audit Committee of i firm at t time

$AUDITQ_{it}$ = Audit Quality of i firm at t time

TAX_{it-1} = Lag of tax avoidance of i firm

μ_{it} = Error term of i firm at t time

Variable measurements

This study measures variables in accordance with the established literature on the topic. Firstly, dependent variable of the study is tax avoidance, which is measured through effective tax rate: ratio of total tax expense to earning before tax. This is widely used measure of tax avoidance (Jarboui et al., 2020; Basheer et al., 2018; Widuri et al., 2020). Board gender diversity was measured by ratio of female directors to total directors. This is also a widely used measure of board gender diversity (Chen et al., 2013; Khan et al., 2018; Jarboui et al., 2020; Widuri et al., 2020). In order to improve estimation specification, control variables were also included in the model.

We took natural log of total assets to measure firm size. Return on assets to measure profitability, debt to assets ratio to represent leverage, total number of people on board to proxy board size, ratio of independent directors to total number of directors on the board, total members of audit committee to represent audit committee size, and dummy variable taking value of 1, if external auditor of firm is in big 5 audit firms. Such inclusion is widely used in previous studies to improve estimation of the model. (Chen et al., 2013; Henry et al., 2016; Basheer et al., 2017; Lanis et al., 2017).

Sample selection and data sources

The data for the study was obtained from secondary sources, whereby each corporation listed in any stock market is mandated to disclose its financial information to public. Financial statements of corporations were obtained from their website to obtain data pertaining to board and audit characteristics. Further, data related to tax avoidance and control variables was obtained from balance sheet analysis of joint stock companies report, published by state bank of Pakistan each year. Financial firms were excluded from the analysis because of their heterogeneous nature of affairs. Further, financial firms work under a tighter regulatory framework, which makes their disclosure and reporting requirements different from non-financial firms. Data from only one country was used because of cross country differences in tax regimes, legislative frameworks, and taxation practices (Hassanet al.,2019). Thus, data was collected from. Non-financial firms listed in Pakistan Stock Exchange (PSX). Non-Financial firms were again segregated into two categories i.e. Shariah Compliant (SC) firms and Non Shariah Compliant (NC) firms. NC firms employee more debt and have a different risk structure compared to SC firms. Firms with missing data on the tax rate were excluded from the sample. This screening process ensured that the data being used for analysis is consistent and free from any externalities. After the screening, final sample of the study was composed of 33 NC firms with 165 firm-year observations, and 221 SC firms with 1155 observations across six years.

Analysis procedure

Firstly, descriptive statistics of the variables included in the study are provided. After that correlation analysis is conducted to see correlations between variables. Lastly, panel data estimation is provided to test hypothesis using fixed effect estimation technique to find the results.

RESULTS

Variable description

Table 1 provides descriptive statistics for the variables of the study. Tax rate for the shariah compliant (SC) firms was higher .25 (SD = 1.41), compared to non-shariah compliant (NC) firms (mean = .15, SD = 0.68). Subsequently, gender diversity for both of the cohorts of the firms averaged at 0.12, where standard deviation for SC firms was a bit lower (SD = 0.12), compared to NC firms (SD = 0.15). After that average ROA was 4.41 (SD = 10.16) for SC firms, whereas the average ROA was negative (mean = -4.91, SD = 21.55) for NC firms. Likewise, average size of SC firms was also a bit higher (mean = 15.79, SD = 1.70), compared to the average size of NC firms (mean = 14.17, SD = 1.81). Subsequently, leverage averaged at 0.58 (SD = 0.30) in SC firms, and at 1.12 (SD = 1.03) in NC firms. Board size averaged 8.01 (SD = 1.36) in SC firms, and 7.34 (SD = 0.77) in NC firms. After that board independence yielded mean of 0.23 (SD = 0.12) for SC, and 0.19 (SD = 0.13) for NC firms. Size of audit committee averaged 3.47 (SD = 0.73) for SC firms and 3.2 (SD = 0.55) for NC firms. Lastly, audit quality averaged .49 (SD =

0.50) for SC firms, and 0.21 (SD = 0.41) for NC firms. Overall, tax rate, profitability, board size, board independence, and audit quality were higher for SC firms, whereas leverage was higher for NC firms. Gender diversity was almost same for both cohorts of corporate firms in Pakistan.

Table 1.
Variable Description

	TAX	GEND	ROA	SZ	LEV	BSZ	BIND	AUDITC	AUDITQ
Shariah Compliant (SC) Firms									
Mean	0.25	0.12	4.41	15.79	0.58	8.01	0.23	3.47	0.49
Median	0.25	0.13	3.76	15.76	0.56	7.00	0.22	3.00	0.00
Maximum	26.75	0.75	70.26	20.68	2.60	14.00	0.75	7.00	1.00
Minimum	-17.47	0.00	-95.04	8.44	0.01	6.00	0.00	2.00	0.00
Std. Dev.	1.41	0.12	10.16	1.70	0.30	1.36	0.12	0.73	0.50
Non-Shariah Compliant (NC) Firms									
	TAX	GEND	ROA	SZ	LEV	BSZ	BIND	AUDITC	AUDITQ
Mean	0.15	0.12	-4.91	14.17	1.12	7.34	0.19	3.20	0.21
Median	0.07	0.12	-5.31	14.23	0.84	7.00	0.14	3.00	0.00
Maximum	5.03	0.63	130.01	18.39	6.30	12.00	0.71	5.00	1.00
Minimum	-3.00	0.00	-156.68	9.91	0.00	6.00	0.00	2.00	0.00
Std. Dev.	0.68	0.15	21.55	1.81	1.03	0.77	0.13	0.55	0.41

Correlation analysis

Table 2 provides correlation matrix for the variables considered in this study. Firstly, for the SC firms, variable of tax avoidance had significance and negative correlation with leverage (r = -0.051, p<.10), and board independence (r = -0.057, p<.01). independent variable of board gender diversity had a significant and negative correlation with firm size (r = -0.191, p<.01), leverage (r = -0.050, p<.10), board size (r = -0.115, p<.05), audit committee (r = -0.089, p<.01), and audit quality (r = -0.136, p<.01). Further, return on assets had positive and significant influence on the variables of firm size (r = 0.257, p<.01), board size (r = 0.173, p<.01), board independence (r = 0.073, p<.01), audit committee (r = 0.220, p<.01), and audit quality (r = 0.281, p<.01); and a negative correlation with leverage (r = -0.329, p<.01).

Variable of size also had a negative correlation with leverage (r = -0.062, p<.05); and positive relationship with board size (r = 0.310, p<.01), board independence (r = 0.088, p<.01), audit committee (r = 0.318, p<.01), and audit quality (r = 0.432, p<.01). After that leverage has a negative and significant relationship with board size (r = -0.049, p<.10), audit committee (r = -0.142, p<.01), and audit quality (r = -0.172, p<.01). Considering the variable of board size, it had a positive and significant correlation with both audit committee (r = 0.484, p<.01), and audit quality (r = 0.253, p<.01). Lastly, board independence only had a positive and significant correlation with audit quality (r = 0.090, p<.01), and audit committee also had a positive and significant correlation with audit quality (r = 0.281, p<.01).

Overall, tax avoidance only showed significant and negative correlation with variables of leverage and board independence. Further, there was no evidence of a strong correlation (r > 0.80) among independent variables for SC firms, ruling out the issue of multicollinearity.

Table 2.
Correlation analysis

	TAX	GEND	ROA	SZ	LEV	BSZ	BIND	AUDITC
Shariah Complaint (SC) Firms								
GEND	-0.010							
ROA	0.017	-0.030						
SZ	-0.002	-0.191***	0.257***					
LEV	-0.051*	-0.050*	-0.329***	-0.062**				
BSZ	-0.022	-0.115**	0.173***	0.310***	-0.049*			
BIND	-0.057**	0.012	0.073***	0.088***	-0.001	0.029		
AUDITC	0.013	-0.089***	0.220***	0.318***	-0.142***	0.484***	0.031	
AUDITQ	-0.038	-0.136***	0.281***	0.432***	-0.172***	0.253***	0.090***	0.281***
Non-Shariah Complaint (NC) Firms								
	TAX	GEND	ROA	SZ	LEV	BSZ	BIND	AUDITC
GEND	-0.095							
ROA	0.088	0.059						
SZ	0.087	0.053	0.201***					
LEV	-0.067	-0.054*	-0.157**	-0.168**				
BSZ	0.019	0.134*	0.291***	0.361***	-0.159**			
BIND	-0.081	-0.052	0.063	0.172**	-0.178**	0.092		
AUDITC	0.015	0.062	0.219***	0.443***	-0.202***	0.652***	0.079	
AUDITQ	0.078	-0.050	0.332***	0.461***	-0.323***	0.376***	0.373***	0.515***

Considering the correlation between variable in NC segment, tax avoidance did not have any significant correlation with any of the independent variables. Subsequently, board gender diversity has a weak negative relationship with leverage (r = -0.054, p<.10), and weak positive interrelationship with board size (r = 0.134, p<.10). Variable of ROA had positive correlations with firm size (r = 0.201, p<.01), board size (r = 0.291, p<.01), audit committee (r = 0.219, p<.01), and audit quality (r = 0.332, p<.01). ROA also had a negative correlation with leverage (r = --0.157, p<.0.05). After that firm size had a significant negative correlation with leverage (r= -0.168, p<.01); and positive correlation with board size (r = 0.361, p<.01), board independence (r = 0.172, p<.05), audit committee (r = , p<.01), and audit quality (r = 0.461, p<.01). Subsequently, leverage had negative and significant influence on board size (r =-0.159, p<.05), board independence (r = -0.178, p<.05), audit committee (r = -0.202, p<.01), and audit quality (r = -0.323, p<.01).

Next independent variable i.e. board size had positive and significant influence on audit committee (r = 0.652, p<.01), and audit quality (r = 0.376, p<.01). After that, board independence had a significant and positive influence on audit quality (r = 0.373, p<.01). Lastly, audit committee also had a positive and significant influence on audit quality (r = 0.515, p<.01). Overall, tax avoidance in NC segment of corporate firm did not have any correlation with variables included in the study. Further, all independent variables had lower than strong correlation (r > 0.80) with each other, implying no multicollinearity in the data of NC segment.

Regression estimation

This study sought to estimate the influence of board gender diversity on tax avoidance of non-financial corporations of Pakistan. Non-financial corporations were further divided into two segments i.e. Shariah Compliant (SC) firms and Non Shariah Compliant (NC) firms, and separate estimations were done for each segment. Table 3 provides estimation results for both segments. Considering SC firm, variable of gender diversity was found to have a negative and significant (β = -1.667, p<.05) influence on tax avoidance, leading us to conclude that gender diversity in the board could be used to deal with tax avoidance in SC firms of Pakistan. Apart from the gender diversity, it was also noted that leverage also had a negative and significant impact (β = -0.832, p<.05) on tax avoidance. Lastly, lag of tax variable also had a negative and significant (β = -1., p<.01), implying that each year a firm paid higher taxes, it tends to lower the tax in subsequent years. The estimated model was also good fit (F = 203.90, p<.01), and explained 26.79% of variance in tax avoidance. Overall, board gender has a negative impact on tax avoidance for SC firms in Pakistan.

Considering the NC firms, board gender diversity did not have any impact on the tax avoidance of NC firms. Subsequently, variable of board independence had a negative and somewhat significant impact on tax avoidance (β = -1.471, p<.10). After that audit committee size also had a negative and somewhat significant influence on the tax avoidance in NC sector (β = -0.338, p<.10). Lastly, lag of tax variable also yielded a significant and negative influence on the tax avoidance variable (β = -0.206, p<.05). Overall, only audit committee size and board independence had some influence on tax avoidance, whereas board gender diversity did not influence tax avoidance in NC segment of non-financial firms of Pakistan.

Table 3.
Estimation results

	Shariah Compliant (SC) Firms		Non-Shariah Compliant (NC) Firms	
Variable	Coefficients	t-stat	Coefficients	t-stat
C	-2.118	-0.75	-0.074	-0.02
GEND	-1.667**	-2.39	0.582	0.70
ROA	-0.002	-0.31	0.000	0.14
SZ	0.161	0.88	0.053	0.23
LEV	-0.832**	-2.31	-0.077	-0.42
BSZ	0.060	0.75	0.133	0.97
BIND	0.403	0.76	-1.471*	-1.85
AUDITC	-0.009	-0.07	-0.388*	-1.80
AUDITQ	-0.067	-0.32	0.267	0.70
TAX(-1)	-0.115***	-4.29	-0.206**	-2.55
R-squared	0.2679		0.3188	
Adjusted R-squared	0.0766		0.0917	
F-statistic	1.40***		1.40*	
Durbin-Watson stat	2.45		2.01	
Chi-Sq. Statistic	203.90***		28.73***	
Model	Fixed Effect		Fixed Effect	

DISCUSSION AND CONCLUSIONS

Tax avoidance has become a common disease in the world, which has raised many concerns for policymakers and ethical investors. Tax avoidance not only has macroeconomic implications (Johnson et al., 2000), but also causes inefficiencies at firm levels (Selmord, 2007; Taylor et al., 2015). Thus, curbing tax avoidance has become a policy and governance issue in the global economy. Literature have suggested that presence of females in the board of directors improves board oversight and tax compliance of the corporate firms (Jarboui et al., 2020; Rhee et al., 2020). This study used panel data from 264 non-financial corporate firms from Pakistan to study the impact of board gender diversity on tax avoidance in Shariah Compliant and Non-Shariah Compliant firms. The study found that board gender diversity and leverage were negative predictors of tax avoidance in Shariah Compliant firms. On the other hand, board independence and audit committee size had a weak influence on tax avoidance in Non-Shariah Compliant firms. Thus, it was concluded that by increasing the number of females in the board could mitigate tax avoidance in Shariah Compliant firms of Pakistan.

This study has implications for both investors and policy makers. Considering an effective role of board gender diversity, investors could lobby and chose to increase female directors on the board and increase debt financing in Shariah Compliant firms to mitigate tax avoidance. Whereas other board a audit characteristics could be focused by the investors in Non Shariah Compliant firms. This study calls for further research in the area of tax related disclosure to understand nature and scope of tax avoidance to develop and implement a viable framework for valuable information dissemination on tax compliance behavior of corporate firm in the world. Lastly, we acknowledge certain limitations of the study. The study is based on limited number of observations from Non-Shariah Compliant firms, as number of such firms in smaller compared to Shariah Compliant firms in Pakistan. This needs further investigation on Non-Shariah Compliant firms by considering a wider and cross-country sample.

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