



Cost Stickiness, Firm's Dividend Payouts, and Family Ownership

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Citation: "Ali, R., ur Rehman, R. & Amin, A. (2023). Cost Stickiness and The Likelihood of Dividend Payouts." *Lahore Journal of Economics*, 27(1), 117–133.
<https://doi.org/10.35536/lje.2022.v27.i1.a5>

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Abstract: Our study enriches the growing literature on cost stickiness in the context of an emerging economy. The study examines the relationship between cost stickiness and dividend payout behavior in Pakistan, and the possibility of their being a moderating role of family ownership. Empirically, we employed 4,567 firm-year observations of non-financial firms listed on the Pakistan Stock Exchange, over the period 2006-2021, and used ordinary least squares regression method to test our hypotheses. Additionally, we used generalized method of moments techniques (GMM) to test the robustness of our results. Using the lens of agency theory, we find that cost stickiness is associated with higher dividend payouts. Further, family ownership moderates the relationship between cost stickiness and dividend payout. Overall, our results support cost stickiness in our sample of firms and a positive correlation of family ownership with dividend payout.

Keywords: Cost stickiness; dividend payout; agency theory.

JEL Classification: G32.

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1. Introduction

Numerous studies have examined the behavior of firm costs in response to changes in the level of business activity. Initially viewing the relationship as linear, researchers later posited a non-linear response of costs and further highlighted a fundamental asymmetry: costs fall less with a fall in sales in comparison to their rise with the equivalent increase in sales. Reasons for this cost stickiness include legal, social and personnel policy reasons, as well as firm and operating policy, and psychological and agency-related reasons (Ibrahim et al., 2021). In a similar vein, Chen et al. (2012) noted that empire-building incentivizes managers to employ new resources rapidly in case of an increase in activity but then release resources slowly in case of a fall in activity. In this case, managers tend to grow the firm beyond its optimal size in order to build their empires, resulting in agency conflict. Since costs are directly related to the firm's profitability, therefore, cost stickiness will subsequently influence dividend policy. In this way, empire-building on the part of managers if it leads to cost stickiness may be an important corporate governance issue.

Dividend policies of firms, and the determinants, have received considerable attention in literature. It impacts firm value under imperfect information conditions (Miller & Modigliani, 1961). In a similar vein, agency literature considers dividend policy to be an important mechanism in terms of mitigating agency conflicts (Kanojia & Bhatia, 2021). Dividend distributions reduce the cash flow available at the disposal of managers to spend as they wish. Moreover, the inclusion of external debt in capital structure, in order to meet dividend payments, attracts external monitoring agencies, which can further mitigate agency conflicts. Accordingly, He et al. (2020) considered dividend payouts as an important strategic decision that has its roots in corporate governance as well as being connected to the cost behavior of a firm. Surprisingly, despite its importance in creating firm value and its influence on investor wealth, relatively few studies have examined cost stickiness and its influence on dividend payout. Recently, He et al. (2020) examined this relationship in the context of American non-financial listed firms. Our study is similar to He et al. (2020), as we examine the same relationship – our study differs from theirs, however, on at least two grounds.

First, while the authors used the sample period of 1978-2016, our sample period is relatively more recent, covering the years 2016 to 2021, which include the impacts of COVID-19. Second, He et al. (2020) examined this relationship in context of a developed country, in this case the United States of America. Governance literature distinguishes developed markets from the emerging markets due to different types of agency conflicts affecting each. According to Armitage et al. (2017), principal-agent conflict is mainly found in developed countries due to the presence of many smaller shareholders, as compared to the concentration of shareholders in emerging markets. Thus, principal-principal conflict is more visible in emerging markets. Further, the regulatory framework in the emerging markets is relatively weaker, offering less protection to investors. Less stringent regulations will tend to motivate controlling shareholders toward a personal agenda that includes engaging in dubious related party transactions that tend to exploit minority shareholders. Thus, the results reported in the context of developed countries cannot be generalized to the emerging markets due to different institutional settings. Overall, we are of the view that the results may be difference in a developing country context and that there exists a significant gap as to the role of cost stickiness on the dividend payout decisions in the context of an emerging economy, which this study attempts to address.

Our study extends, as well as makes a number of new contributions to, the extant literature in a number of ways. First, unlike static signal models that consider the firm's financial health as a key determinant of dividend policy, we provide empirical evidence of the relationship between cost stickiness and dividend payout. As such, our findings imply that current dividend payments by firms are not only dependent on availability of funds, but also on their expectancy of maintaining the same level of dividends in the future despite declines in future earnings due to cost stickiness. Our results are interesting in comparison with those of prior studies (e.g., He et al., 2020; Baker et al., 2016) in this context. Second, we extend the research work of He et al. (2020) by examining the relationship between cost stickiness and dividend payout in an emerging economy, as the results obtained in the context of developed economy, USA, cannot be generalized to an emerging market. Finally, our study adds to the family business literature by highlighting the role of family owners in reducing cost stickiness behavior of firms. In this way, we add to the family business literature in context of an emerging economy.

The rest of the study proceeds in the following manner. Section two presents the literature review and hypothesis development. Section three presents research methodology. Section four provides results and discussion. Section five presents the conclusion of the study.

2. Literature Review and Hypotheses Development

2.1 Agency Theory

According to agency theory, the separation of ownership and control between shareholders and managers gives rise to agency conflicts (Jensen & Meckling, 1976), the main reason being the divergence of interests between the two parties due to high information asymmetries. The problem, therefore, arises with this mode of corporate ownership is that managers do not always make decisions that are in the best interest of the principal, resulting in the loss of wealth for shareholders. For instance, while shareholders may prefer the maximization of wealth in the long-run by undertaking high return-seeking long-term projects, the managers, in contrast, may focus on short-run profits (short-termism) in order to maximize their personal objectives, such as high salaries and bonuses.

The solution to the agency problem, therefore, lies in the supervision and control of the company's management (Huu Nguyen et al., 2020). From the cost stickiness perspective, Chen et al. (2012) noted that managers with "empire-building" incentives induct new resources more rapidly with the increase in business activity. On the contrary, in case of a shrinkage in operations, they only retire the slack resources slowly. Such cost adjustments lead to creation of empires and result in sticky cost behavior.

Moreover, in firms with sticky costs, the asymmetric responses of firms to negative shocks results in a massive decline in firm earnings as compared to firms with less sticky costs (Chung et al., 2019). Thus, the reduction in cost stickiness is desirable to maximize the shareholders' value. Similarly, agency theory considers dividend distribution as an important aspect of governance mechanism that mitigates the agency conflict. In this perspective, the availability of free cash flows results in managers spending on the personal benefits instead of maximizing the shareholder's wealth (Jensen, 1986). The payment of dividends, by restricting the availability of free cash flows at the disposal of managers, helps resolve the agency problem. Moreover, the distribution of dividends using external funds (in case internal funds are not sufficient) results in the intense monitoring of debt providers, which serves as an additional governance mechanism

reducing agency conflicts. Overall, we consider agency theory to be an important framework to examine agency conflict in our model.

2.3 *Cost stickiness and Dividend Payout*

The non-linear relationship between costs and activity level has been widely debated in the literature. For instance, in the earlier studies, Malcom (1991) suggested that many overheads costs do not change in proportion to business activity levels. Similarly, Anderson et al. (2003) highlighted that the increase in cost with respect to increases in activity exceeds the decrease in cost when there is a decrease in activity levels. Since the influence of costs are mainly related to the earnings of the firm and firm value, this phenomenon attracted the attention of the scholars of corporate governance. Using the framework of agency theory, Chung et al. (2019) explained that managers who are more prone to “empire building”, waste firms’ resources to expand the firm beyond optimal levels and exhibit more cost sticky behavior, with the aim of gaining power and compensation. Thus, the empire building behavior of managers may lead to more cost stickiness and drain firm resources.

According to He et al. (2020), the firm’s reported earnings are key drivers of firm’s dividend policy. Evidently, higher sticky costs will result in an extra financial burden on a firm’s cash flow and will negatively influence the firm’s payout decisions. The authors provide empirical evidence of lower dividend payouts in firms with higher sticky costs. Consistently, they argue that those firms with stickier costs will have lower dividend payouts for at least two reasons. First, the stickier costs result in less availability of cash to distribute as dividends. A shrinkage in operations due to negative economic shocks and higher sticky costs leads to the less payouts by the firm. Second, firms with higher sticky costs will find it difficult to sustain higher levels of dividend distribution in the future. Therefore, in order to avoid future dividend cuts that may shock the investors and result in a loss of firm value, such firms strive to pay lower dividends in the current period, in order to avoid a dividend cut in the future. Thus, we hypothesize that:

H1: *Firms with stickier costs will have lower dividend payouts*

2.4 *Moderating Role of Family Ownership*

The relationship between the family firm and dividend payout can also be examined under the framework of agency theory. From agency theory’s point of view, the dispersion of ownership gives rise to principal-

agent conflict due to higher information asymmetry resulting in the expropriation of the minority shareholders. The presence of large shareholders, such as family owners, is considered an important governance mechanism that reduces this conflict. However, the presence of block holders results in another kind of conflict, principal-principal conflict that arises due to the expropriation of minority shareholders by the large shareholders to achieve private goals and the family's own agenda.

According to La Porta et al. (2000), listed firms in Asia are mainly characterized by the presence of large shareholders and are mostly family owned and controlled. In this scenario, Shleifer and Vishney (1986) argued that the presence of family owners improves firm value due to intense monitoring and low information asymmetry, the main reason being the desire for a strong firm reputation and an increase in the firm's wealth. In a similar vein, Pindado et al. (2012) highlighted that family firms pay higher dividends than non-family firms. Similarly, Setia-Atmaja, L. (2010) also reported higher dividend distribution in family firms in the case of Australia. On the flip side, the existence of principal-principal conflict has also been highlighted by researchers. For instance, Hwang et al. (2013) argued that in order to retain firm resources within the family, Korean family firms pay less dividends. Similar results were reported by Chen et al. (2012) in case of China and Gugler (2003) in case of Austria.

Higher dividend payouts in family firms can be expected as the progeny of family owners with minority equity holdings may have strong desire for the dividend to increase their personal wealth. The higher dividend distribution, therefore, result in more income for these owners (Yoshikawa & Rasheed, 2010). Moreover, from a cost stickiness perspective, the presence of family owners is associated with intense monitoring of management, restricting the divergent behavior of managers and leading to less cost stickiness. The empirical literature examining the relationship between family firms and dividend payouts has reported mixed results. For instance, Yoshikawa and Rasheed (2010) examined the linkage between family businesses and dividend payouts in Japanese listed firms and found higher dividend payouts in family owned and controlled firms. Similar results were reported by Carney and Gedajlovic (2002) in the case of Hong Kong. On the contrary, Setiawan et al. (2016) found lower dividend payouts in family owned and controlled firms in Indonesia.

Summarizing the discussion, we argue that the family firms distribute more dividends to gain higher firm reputation in the equity market and to increase their own and personal wealth of the descendants.

Moreover, due to their monitoring of management their presence tends to alter the relationship between cost stickiness and dividends payouts. We, therefore, hypothesize that:

H2: *The presence of family owners has a significant effect on the relationship between stickier cost and the dividend payout*

3. Research Methodology

3.1 Sample Description

Following Amin et al. (2022), the data for the study was gathered from the annual reports of the firms available on website of Pakistan Stock exchange and on the website of the respective firms. The sample was based on the non-financial listed firms over the period 2006-2021. Our reason for selection of this period was the non-availability of complete data prior to 2006. Financial firms were excluded because these firms operate under separate regulatory frameworks and have different financial characteristics. After exclusion of financial firms and firms with missing observations, our final sample comprises of unbalanced panel data with 4567 firm-year observations. The sample selection procedure is depicted in Table 1.

Table 1: Sample Description

Sample selection procedure	
Initial observations of all listed firms for the period 2006 to 2021	9570
Less: Firm observations of financial firms	2641
Less: number of firm-year with missing observations	2362
Final sample	4567

Note: The table reports the sample selection procedure used in the study.

3.2 Variable Measurement

In order to measure our independent variable, cost stickiness, we follow Chung et al. (2019). Consistently, we consider cost stickiness as “the difference between the rate of the cost decrease in recent quarters with decreasing sales and the corresponding rate of cost increase in recent quarters with increasing sales”:

$$W_{S_{i,t}} = \log \left(\frac{\Delta Costs_{i,t}}{\Delta Sales_{i,t}} \right)_{i,\theta} - \log \left(\frac{\Delta Costs_{i,t}}{\Delta Sales_{i,t}} \right)_{i,\phi} \quad (1)$$

where θ is the most recent of the last four quarters with a decrease in sales, and ϕ is the most recent of the last four quarters with an increase in sales. Additionally, $Sales_{i,t} = \Delta Sales_{i,t} - \Delta Sales_{i,t-1}$ and

$$\Delta Costs_{i,t} = (Sales_{i,t} - Earnings_{i,t}) - (Sales_{i,t-1} - Earnings_{i,t-1}),$$

where *Earnings* denotes income before extraordinary items. Hence, $W_{S_{i,t}}$ is the difference in the cost function slope between the two most recent quarters, from quarter $t - 3$ through quarter t , such that sales decrease in one quarter and increase in the other. If costs are sticky, meaning that they increase more when the activity level rises than they decrease when it falls by an equivalent amount, then the measure has a negative value. A lower value of W_S indicates stickier cost behavior: a negative (positive) value of W_S means that managers are less (more) likely to respond to sales decreases by reducing costs than they are to increase costs when sales increase. We compute the annual average of quarterly W_S for firm i at the end of fiscal year t based on the W_S of the prior four quarters. This average quarterly cost stickiness is our measure of the degree of cost stickiness over the fiscal year."

Similarly, consistent with Miller et al. (2021), we measure our dependent variable, dividend payout, as the ratio of dividends distributed at time t to the total assets of the firm at time $t-1$. Thus, a dividend payment in 2021 is related to total assets as of 2020. Cash dividend paid during the year divided by the net profit after tax. In order to measure our moderator, family ownership, following Purkayastha et al. (2019), a firm was considered a family firm (*FAM_FM*) if the main shareholder of a firm is a family or an individual and owns more than 20 percent of the equity. For family ownership, a dummy variable was used which represents 1 if the firm is a family firm, whereas, 0 represents non-family firm (*NF_FM*). Finally, following He et al. (2020), we employed leverage, Tobin's Q , cash holding, and asset tangibility as control variables to control for the firm characteristics. Table 2 summarizes the nature, symbols, and measurement of all the variables used in the study.

Table 2: Variable Description and Measurement

Nature	Variable	Symbol	Measure
Dependent variable	Dividend payout	<i>DIV</i>	Ratio of dividends distributed at time <i>t</i> to the total assets of the firm at time <i>t-1</i>
Independent variable	Cost stickiness	<i>W_S</i>	$\log \left(\frac{\Delta Costs_{i,t}}{\Delta Costs_{i,t}} \right)_{i,\theta} - \log \left(\frac{\Delta Costs_{i,t}}{\Delta Costs_{i,t}} \right)_{i,\emptyset}$
Moderator	Family ownership	<i>FAM_FM</i>	Dummy variable which represents 1 if the firm is a family firm, 0 otherwise.
Control variables	Leverage	<i>LEV</i>	Total debt divided by total assets
	TOBIN's Q	<i>TOBIN_Q</i>	Market value of assets divided by book value of assets
	Cash holding	<i>CH</i>	Net operating cash flows divided by total assets
	Asset Tangibility	<i>TANG</i>	Property, plant, and equipment divided by total assets
	Firm size	<i>F_SIZE</i>	Log of total assets
	Return on assets	<i>ROA</i>	Net profit divided by total assets

Source: Authors. Note: The table shows the nature, symbol and measurement of all the variables used in the study.

3.3 Econometric Model

In order to test the hypotheses, we develop the following two regression models:

$$\begin{aligned}
 Dividendpayout_{i,t} = & \alpha + \beta_1 Coststickiness_{i,t} + \beta_m LEV_{i,t} + \\
 & \beta_n TOBIN_{Q_{i,t}} + \beta_o CH_{i,t} + \beta_p TANG_{i,t} + \\
 & \beta_q F_{i,t} + \beta_r ROA_{i,t} + \\
 & \sum_{v=1}^{33} \beta_{(i,v)} Industrydummy_{i,t} + \\
 & \sum_{w=1}^{13} \beta_{(y,w)} yeardummy_{i,t} + \varepsilon_{i,t} \quad (Model 1)
 \end{aligned}$$

$$\begin{aligned}
 Dividendpayout_{i,t} = & \alpha + \beta_j Coststickiness_{i,t} + \\
 & \beta_k Familyownership_{i,t} + \beta_l Coststickiness_{i,t} * \\
 & familyownership_{i,t} + \beta_m LEV_{i,t} + \\
 & \beta_n TOBIN_{Q_{i,t}} + \beta_o CH_{i,t} + \beta_p TANG_{i,t} + \\
 & \beta_q F_{i,t} + \beta_r ROA_{i,t} + \\
 & \sum_{v=1}^{33} \beta_{(i,v)} Industrydummy_{i,t} + \\
 & \sum_{w=1}^{13} \beta_{(y,w)} yeardummy_{i,t} + \varepsilon_{i,t} \quad (Model 2)
 \end{aligned}$$

Whereas, α represents intercept of the model which reflects the constant value of the model; *Dividend payout* is our dependent variable; *Cost stickiness* is our main explanatory variable of interest; *Family ownership* is the moderator: leverage (*LEV*), TOBIN's Q (*TOBIN_Q*), cash holding (*CH*), asset tangibility (*TANG*), firm size (*F_SIZE*), and return on assets (*ROA*)

are the control variables; β_j to β_z represents regression coefficients of independent variables, control variables, industry dummy, and year dummy; and, ε is the error term.

4. Results and Discussion

4.1 Descriptive Statistics

Table 3 shows the descriptive statistics of the variables used in the study. The table reflects number of observations (N), mean (Mean), standard deviation (SD), minimum (min) and maximum (max) of the variables. The table shows mean of *W_S* as 0.091 with minimum value of -0.217 and maximum value of 0.597. As a negative value reflects cost stickiness behavior, the positive value of the mean depicts that cost stickiness is on average less present in our sample of firms. However, the statistics show significant variance between the firms which is consistent with Chung et al. (2019). Further, on average the dividend payout ratio in our sample firms is 22 percent, but not all firms pay dividends. The mean of *FAM_FM* shows that on average the 61 percent of our sample firms are under family ownership.

Table 3: Descriptive Statistics

Variable	N	Mean	SD	Min	Max
<i>W_S</i>	4567	0.091	0.022	-0.217	0.597
<i>DIV</i>	4567	0.221	0.017	0.000	0.387
<i>FAM_FM</i>	4567	0.612	0.071	0.000	1.000
<i>LEV</i>	4567	0.210	0.086	0.010	0.510
<i>TOBIN_Q</i>	4567	0.565	0.049	0.000	3.822
<i>CH</i>	4567	0.205	0.087	0.019	0.706
<i>TANG</i>	4567	0.126	0.018	-0.217	0.507
<i>F_SIZE</i>	4567	22.877	0.017	19.032	26.556
<i>ROA</i>	4567	6.957	0.081	-28.510	36.140

Source: Authors' calculations. Note: The table shows the number of observations (N), mean (Mean), standard deviation (SD), minimum (Min) and maximum (Max) of all the variables used in the study.

4.2 Pearson Correlation

The Pearson correlation of all the variables is reported in Table 4. The table shows negative correlation between *W_S* and *DIV* (-0.022**) significant at 5% level of significance. The result goes against our original argument that cost stickiness reduces the dividend payout. We also found a negative correlation between *W_S* and *FAM_FM* (-0.079***), which implies that family ownership increases cost stickiness behavior of the

firm. Finally, positive correlation was found between *DIV* and *FAM_FM* (0.033*), which shows that the presence of family owners is associated with higher dividend payout. According to Gujarati (2016), if the correlation coefficient exceeds 0.8, then there is a threat of multicollinearity. In all the cases, the coefficient was well below 0.8, hence the problem of multicollinearity does not exist in our data.

Table 4: Pearson Correlation

Variable	W_S	DIV	FAM_FM	LEV	TOBIN_Q	CH	TANG	F_SIZE	ROA
W_S	1								
DIV	-0.022**	1							
FAM_FM	-0.079***	0.033*	1						
LEV	0.012	0.024	-0.011	1					
TOBIN_Q	-0.162**	-0.007	-0.060***	0.014	1				
CH	-0.027	-0.004	0.004	-0.059***	-0.040**	1			
TANG	-0.073***	-0.015	0.023	-0.039**	-0.063***	0.031*	1		
F_SIZE	0.056***	-0.002	-0.031*	0.119***	0.020	-0.025	-0.026	1	
ROA	-0.064***	0.018	0.039**	-0.051***	-0.114***	0.035*	0.755***	0.003	1

Source: Authors' calculations. Note: The table shows the Pearson correlation of all the variables used in the study.

4.3 Ordinary Least Squares Regression

In order to test our hypotheses, following Amin et al. (2022), we run ordinary least squares regression using model 1 and model 2. Model 1 was used to determine the direct effects of cost stickiness on dividend payout, whereas, the model 2 was used to test for the moderation effect of family ownership. The results obtained in both the cases are depicted in table 5. Under hypothesis H1 we hypothesize that higher cost stickiness is associated with lower dividend payouts of the firm. We argued that cost stickiness leaves the firm with little margin for the payment of dividends and therefore, less dividend payout is expected in such firms. We obtain results which go against our original hypothesis H1 as we found negative regression coefficient -0.061*** significant at 1% level of significance. Empirically, our results are in contrast to those found by He et al. (2020) who found lower dividend payouts in firms with higher cost stickiness.

Similarly, under hypothesis H2, we hypothesize that the presence of family owners alters the relationship between stickier cost and dividend payout. We argue that in the presence of persistent monitoring of family owners the impact cost stickiness on dividend payouts changes. Our hypothesis H2 was not supported, however, as we found an insignificant coefficient on the moderation term 2.021. On the other hand, consistent with

Yoshikawa and Rasheed (2010), our analysis shows a positive and statistically significant association between dividend payouts and family ownership 1.058; however, the findings indicate that family ownership does not moderate the relationship between cost stickiness and dividend payout.

Table 5: OLS-Cost Stickiness, Family Ownership and Dividend Payout

Variables	DIV	DIV
<i>W_S</i>	-0.061*** (0.021)	-0.065*** (0.011)
<i>FAM_FM</i>		1.058*** (0.022)
<i>W_S*FAM_FM</i>		2.021 (2.244)
<i>LEV</i>	0.036 (0.044)	0.031 (0.044)
<i>TOBIN_Q</i>	0.018 (0.037)	0.021 (0.037)
<i>CH</i>	-0.011 (0.012)	-0.007 (0.014)
<i>TANG</i>	-0.841*** (0.016)	-0.833*** (0.015)
<i>F_SIZE</i>	0.043 (0.032)	0.043 (0.031)
<i>ROA</i>	0.009 (0.007)	0.008 (0.007)
Constant	15.225*** (0.717)	18.161*** (0.701)
Observations	4567	4567
Year effect	Included	Included
Industry effect	Included	Included
R-square	0.33	0.32

Source: Authors' calculations. Note: The table shows the ordinary least squares regression of cost stickiness, family ownership and dividend payout. *, **, *** indicates significance at 10%, 5%, and 1% level of significance. Standard errors are reported in parentheses.

4.5 Robustness

4.5.1 Generalized Method of Moments

Although ordinary least squares regression results show support for our hypotheses, however, the results may be endogenous due to unobserved heterogeneity and simultaneity. According to Owusu-Gyaopong (1986), ordinary least squares regression is unable to capture complex and dynamic relationships and unable to solve the problem of unobserved heterogeneity and simultaneity, which may lead to biased results. Therefore, we used two-step GMM for the robustness check as it is commonly used for endogeneity

problems (Abad et al., 2017). The GMM estimations of model 1 and model 2 are shown in Table 6. The signs of the coefficients were in conformity with our earlier obtained results. However with GMM, the moderation term (which was positive but statistically insignificant with OLS) now shows a significant moderation of family ownership on the relationship between cost stickiness and dividend payouts. It is notable that the p-value of the Hansen J test and Arellano-Bond (AR 2) test are insignificant, which shows the validity of our model. The Hansen J test ensures the validity of instruments whereas the Arellano-Bond test indicates that model does not suffer from second order autocorrelation.

Table 6: GMM-Cost Stickiness, Family Ownership and Dividend Payout

Variables	DIV	
<i>LAG_DIV</i>	0.421*** (0.026)	0.337*** (0.021)
<i>W_S</i>	-0.115*** (0.047)	-0.161*** (0.014)
<i>FAM_FM</i>		0.217*** (0.011)
<i>W_S*FAM_FM</i>		1.119*** (0.030)
<i>LEV</i>	0.074 (0.049)	0.075 (0.049)
<i>TOBIN_Q</i>	0.015 (0.074)	0.014 (0.075)
<i>CH</i>	0.001 (0.011)	0.001 (0.011)
<i>TANG</i>	0.620*** (0.003)	0.512*** (0.008)
<i>F_SIZE</i>	0.004 (0.037)	0.011 (0.036)
<i>ROA</i>	0.018 (0.008)	0.011 (0.007)
Constant	15.021 (16.076)	14.310 (16.259)
Observations	4,260	4,260
Controls	Included	Included
Year effect	Included	Included
Industry effect	Included	Included
Number of instruments	130	130
Hansen j test p value	0.274	0.395
AR (2) p value	0.516	0.610

Source: Authors' calculations. Note: The table shows the generalized method of moments estimation of cost stickiness, family ownership and dividend payout. *, **, *** indicates significance at 10%, 5% and 1% level of significance. Standard errors are reported in parentheses.

5. Summary and Conclusion

This study examines the effect of cost stickiness behavior of firms on dividend payout decisions, and the moderating influence of family ownership on this relationship. Our study makes several contributions to the literature. First, we add to the growing studies on cost stickiness by examining its influence on dividend payout decision of firms. Second, we extend the research work of He et al. (2020) by examining this relationship in the context of an emerging market, which significantly differs from developed markets due to weak regulatory frameworks and less legal protection for shareholders. Third, we add to the family business literature by highlighting the positive influence of family owners on the dividend payout decision of the firm.

Our sample consists of non-financial firms listed on the Pakistan Stock Exchange over the period 2006-2021. We employed ordinary least squares regression to test our hypotheses, and additionally applied generalized method of moments estimation to check for robustness. Under hypothesis H1, we predicted that cost stickiness behavior reduces dividend payouts. We originally argued that stickier costs result in less cash flows available for the dividend distribution and moreover, the managers prefer less steady dividends to avoid future negative shocks. Interestingly, we found results which were opposite to what we expected since we found a positive impact of cost stickiness on dividend payout. Similarly, under hypothesis H2, we expect that the presence of family owners to impact the relationship between cost stickiness behavior and dividend payout. We argue that the monitoring of management by family owners impacts the behavior of managers leading a change in the relationship between cost stickiness and dividends payouts. While our hypothesis H2 was not supported by our OLS results, we did find significant evidence of this in our GMM estimates; our findings also found higher dividend payout in the family firms. Overall, our results are consistent with the previous literature in this context.

Our results have important implications for the shareholders and policymakers. For shareholders our results highlight the influence of cost stickiness behavior on dividend payout decisions. While the investors are mainly focused on the availability of cash flows and financial health of the company for dividend distribution, nevertheless, our results implies that cost stickiness also influences dividend strategies. For policymakers, our results indicate an important role of family owners on firm outcomes and strategic decisions.

As with other studies, our study is not without limitations, which may serve as guidelines for future researchers. We have only considered one type of ownership "family ownership," while other types of ownership, such as "institutional ownership" and "state ownership" are also influential on firm outcomes. Future researchers may examine the influence of other types of ownership on this relationship. Moreover, the culture of Pakistan differs from other emerging markets. Future studies may be conducted in other emerging markets to determine the generalizability of the results.

References

- Abad, D., Lucas-Pérez, M. E., Mingles-Vera, A., & Yagüe, J. (2017). Does gender diversity on corporate boards reduce information asymmetry in equity markets?. *BRQ Business Research Quarterly*, 20(3), 192-205.
- Amin, A., Ur Rehman, R., Ali, R., & Ntim, C. G. (2022). Does gender diversity on the board reduce agency cost? Evidence from Pakistan. *Gender in Management: An International Journal*, 37(2), 164-181.
- Anderson, M. C., Banker, R. D., & Janakiraman, S. N. (2003). Are selling, general, and administrative costs “sticky”? *Journal of accounting research*, 41(1), 47-63.
- Armitage, S., Hou, W., Sarkar, S., & Talaulicar, T. (2017). Corporate governance challenges in emerging economies. *Corporate Governance: An International Review*, Forthcoming.
- Baker, M., Mendel, B., & Wurgler, J. (2016). Dividends as reference points: A behavioral signaling approach. *The Review of Financial Studies*, 29(3), 697-738.
- Carney, M., & Gedajlovic, E. (2002). The coupling of ownership and control and the allocation of financial resources: Evidence from Hong Kong. *Journal of Management Studies*, 39(1), 123-146.
- Chen, C. X., Lu, H., & Sougiannis, T. (2012). The agency problem, corporate governance, and the asymmetrical behavior of selling, general, and administrative costs. *Contemporary Accounting Research*, 29(1), 252-282.
- Chung, C. Y., Hur, S. K., & Liu, C. (2019). Institutional investors and cost stickiness: Theory and evidence. *The North American Journal of Economics and Finance*, 47, 336-350.
- Gugler, K. (2003). Corporate governance, dividend payout policy, and the interrelation between dividends, R&D, and capital investment. *Journal of Banking & Finance*, 27(7), 1297-1321.
- Gujarati, D.N. (2016). *Basic Econometrics* (UK ed.), McGraw-Hill Europe, Boston.

- He, J., Tian, X., Yang, H., & Zuo, L. (2020). Asymmetric cost behavior and dividend policy. *Journal of Accounting Research*, 58(4), 989-1021.
- Huu Nguyen, A., Thuy Doan, D., & Ha Nguyen, L. (2020). Corporate governance and agency cost: Empirical evidence from Vietnam. *Journal of Risk and Financial Management*, 13(5), 103.
- Hwang, L. S., Kim, H., Park, K., & Park, R. S. (2013). Corporate governance and payout policy: Evidence from Korean business groups. *Pacific-Basin Finance Journal*, 24, 179-198.
- Ibrahim, A. E. A., Ali, H. M. H. O., & Aboelkheir, H. N. E. R. (2021). Cost stickiness: A systematic literature review of 27 years of research and a future research agenda. *Journal of International Accounting, Auditing and Taxation*, 100439.
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American economic review*, 76(2), 323-329.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305-360.
- Kanojia, S., & Bhatia, B. S. (2021). Corporate governance and dividend policy of the US and Indian companies. *Journal of Management and Governance*, 1-35.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of financial economics*, 58(1-2), 3-27.
- Malcom, R. E. (1991). Overhead control implications of activity costing. *Accounting Horizons*, 5(4), 69.
- Miller, D., Amore, M. D., Quarato, F., & Corbetta, G. (2021). Family Ownership Dispersion and Dividend Payout in Family Firms. *Journal of Family Business Strategy*, 100436.
- Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *the Journal of Business*, 34(4), 411-433.
- Owusu-Gyapong, A. (1986). Alternative estimating techniques for panel data on strike activity. *The review of economics and statistics*, 526-531.

- Pindado, J., Requejo, I., & De la Torre, C. (2012). Do family firms use dividend policy as a governance mechanism? Evidence from the Euro zone. *Corporate Governance: An International Review*, 20(5), 413-431.
- Purkayastha, S., Veliyath, R., & George, R. (2019). The roles of family ownership and family management in the governance of agency conflicts. *Journal of Business Research*, 98, 50-64.
- Setia-Atmaja, L. (2010). Dividend and debt policies of family controlled firms: The impact of board independence. *International Journal of Managerial Finance*.
- Setiawan, D., Bandi, B., Phua, L. K., & Trinugroho, I. (2016). Ownership structure and dividend policy in Indonesia. *Journal of Asia Business Studies*, 10(3), 230-252.
- Shleifer, A., & Vishny, R. W. (1986). Large shareholders and corporate control. *Journal of political economy*, 94(3, Part 1), 461-488.
- Yoshikawa, T., & Rasheed, A. A. (2010). Family control and ownership monitoring in family-controlled firms in Japan. *Journal of Management Studies*, 47(2), 274-295.

