

1990), which refers to the ratio of business loans to consumer loans (Bowden, 1980; Rose, 1988). To capture strategic change, we first constructed historical trends in the client mix of each bank. We then set a bank's historical strategy equal to a two-year moving average estimated using an autoregressive moving average approach. We selected two years for the moving average based on the results of a Breusch–Godfrey LM test (Greene, 2003). Deviations from this moving average reflect a change in strategy. We then converted these deviations into z-scores to capture the magnitude of the strategic change. Since we are primarily concerned with the strategic change pursuit itself (i.e., rather than the content or direction of this change), we used the absolute value of the z-score to capture changes in a bank's strategy. Values for this variable thus indicate whether banks engage in strategic change, as well as the magnitude of such change. We categorized banks with a z-score greater than 1 as having engaged in strategic change, and those with a z-score less than 1 as not having engaged in strategic change in a given period. We ran all of our analyses separately for these two groups. A benefit of this approach was that it allowed us to test our hypotheses without creating three-way interactions, which can be difficult to interpret. However, in additional analyses, which we report in a later section, we also ran all tests with a continuous strategic change variable.

Change in human capital investment. Human capital reflects the KSAs of a firm's workforce. Firms accumulate human capital through acquisition (i.e., hiring) or internal development (Sirmon et al., 2007). Consistent with prior research (Sirmon & Hitt, 2009; Symeonidou & Nicolaou, 2018), we capture human capital investment as the ratio of the financial resources that a firm directs to salaries, bonuses, and training over the total number of employees in the firm. Our measure of change in human capital investment represents the year-over-year difference in this value. A focus on the change in—rather than the absolute value of—a firm's human capital investment is appropriate to test our model because our interest is in a firm's *new* allocations to human capital in a given year. Because changes in human capital investment are likely to be endogenous, we utilized an estimation technique that addressed the endogeneity of such investment decisions, which we describe in a more thorough discussion below.⁶

Control variables. In addition to the controls already mentioned (i.e., prior average of HR slack, prior average of financial slack), we also controlled for variables traditionally included in studies on the relationship between slack and firm performance, and in research conducted in the banking industry. First, we included a control for *firm size*, operationalized as the natural log of assets. As prior performance is likely to affect market returns (Sirmon & Hitt, 2009), we controlled for *prior performance*, operationalized as the prior year's Tobin's *q*. This also allowed us to assess the impact of the hypothesized predictors on firm performance above and beyond the effects of prior levels of performance without having to use change scores. This is beneficial, as scholars have raised concerns that change scores may be unreliable and sensitive to regression toward the mean (Allison, 1990). We controlled for *prior human capital investment* level because the effects of changes in human capital investment may depend on the baseline representing a firm's status quo. As banks may also make investments in physical capital (Sirmon & Hitt, 2009), we controlled for *changes in physical capital investment* as the year-over-year change in investments in plants, property, and equipment. Based on the influences of geographic location on banks' customer bases, strategies, and performance (Kim & Miner, 2007), we controlled for the regional *geographic district* in which each bank is headquartered. We followed the demarcation of geographic districts used by the Federal Reserve, another regulator of banking institutions. Since bank performance is sensitive to the risk profile assumed by the bank (Kim & Santomero, 1988), we controlled for a bank's *risk profile* using the ratio of Tier-1 capital to total loans, where Tier-1 capital reflects the most liquid form of capital available to the bank. As banks establish a charter that defines their activities and geographic scope (e.g., state, national), which may influence the overall performance of the bank (Bamford, Dean, & McDougall, 2000; Kim & Miner, 2007), we controlled for *charter* type. Lastly, given the panel nature of the dataset and technological advancements that can influence the productivity of a bank as well as the products and services that a bank can offer, we included *year* controls.

ANALYSES AND RESULTS

Estimation Approach

In our conceptual model, we proposed that financial slack operates through changes in human capital

⁶ We also conducted additional analyses to determine whether strategic change itself was endogenous, which we also report in a later section.

investment to moderate the relationship between HR slack and bank performance in the context of strategic change. Testing this pattern of relationships requires that we first examine whether financial slack predicts change in human capital investment and then examine whether the indirect effect of financial slack through change in human capital investment interacts with HR slack to predict bank performance in the context of strategic change. This is equivalent to the second-stage moderated mediation model (Model 1G; Equation 20) in Edwards and Lambert (2007).⁷ Consistent with Edwards and Lambert's (2007) framework, we estimated two multiple regression models. The first model tests whether financial slack predicts change in human capital investment (Edwards & Lambert, 2007: Equation 3). The second model estimates whether financial slack operates through change in human capital investment to moderate the relationship between HR slack and bank performance. Specifically, we regressed bank performance on HR slack, financial slack, change in human capital investment, and the interactions between HR slack with financial slack and change in human capital investment, respectively (Edwards & Lambert, 2007: Equation 20). We centered variables used in the interactions to reduce concerns regarding multicollinearity.

To minimize issues related to autocorrelation and heteroskedasticity, we estimated our models using random effects. Random-effects models address heteroskedasticity by creating a random effect that is a combination of the fixed organizational effect and the time-varying component to account for both temporal and interorganizational variability (Greene, 2003). The results of a Hausman test—used to determine whether a fixed- or random-effects model is appropriate—supported the use of the random-effects model. Moreover, as our interest fundamentally centers on variance in resource stocks that is observed between firms, but also within firms, over time, random-effects models allowed us to appropriately capture such variance (Kraatz & Zajac, 2001). To further mitigate concerns regarding heteroskedasticity, we estimated the models using robust standard errors. Lastly, we estimated variance inflation factors (VIFs) following each regression to

check for the presence of multicollinearity. All VIFs were below the generally accepted maximum value of 10 (Greene, 2003), thereby reducing concerns of multicollinearity.

Tests of Hypotheses

Descriptive statistics and correlations are provided in Table 1. Table 2 provides the regression estimates for the models predicting change in human capital investment (i.e., the mediator), as well as Tobin's q (i.e., the dependent variable). To test Hypothesis 1, which predicted that strategic change would moderate the effect of HR slack on bank performance, we compared the estimates of HR slack on Tobin's q between banks engaged in strategic change and banks not engaged in strategic change. As shown in Models 2a and 2b, HR slack has a negative and statistically significant effect on Tobin's q in the nonchange context ($\beta = -0.151$, $p < .001$), and a positive and statistically significant effect in the context of strategic change ($\beta = 0.300$, $p < .05$). The difference between the estimates is statistically significant ($t = 3.047$, $p < .01$). Together, the results indicate that strategic change moderates the effect of HR slack on Tobin's q , such that the relationship is negative in the nonchange context but positive in the context of strategic change, providing support for Hypothesis 1.

To test Hypothesis 2, we estimated the effect of financial slack on change in human capital investment and compared this effect for banks engaged in strategic change to those not engaged in strategic change. As shown in Models 1a and 1b, respectively, the relationship between financial slack and change in human capital investment is positive and statistically significant for banks not engaged in strategic change ($\beta = 0.015$, $p < .001$) and those engaged in strategic change ($\beta = 0.020$, $p < .001$). The difference between the estimates is statistically significant ($t = 3.535$, $p < .001$). The results indicate that the positive relationship between financial slack and change in human capital investment is stronger for banks engaged in strategic change than for banks not engaged in strategic change, thus supporting Hypothesis 2.

To test Hypothesis 3, where we predicted that, among banks engaged in strategic change, the relationship between HR slack and bank performance would be moderated by change in human capital investment, we added an interaction between HR slack and change in human capital investment to the model. As shown in Table 2, the effect of the

⁷ We also tested our conceptual model using an alternative approach centered on hierarchical multiple regression and instrumental variables techniques to address potential endogeneity of both changes in human capital investment and strategic change. We present this additional analysis in a later section.

TABLE 1
Descriptive Statistics and Correlations

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Tobin's q_{t+2}	9.94	3.50												
2. HR slack $_{t+1}$	0.17	1.73	0.03											
3. Financial slack $_t$	1.20	3.90	0.06	0.01										
4. Prior HR slack $_t$	0.04	0.16	0.06	0.72	0.02									
5. Prior financial slack $_{t-1}$	0.09	0.26	0.03	0.01	0.83	0.02								
6. Δ Human capital investment $_{t+1}$	2.37	13.43	0.11	0.00	0.05	0.01	0.03							
7. Prior human capital investment $_t$	61.69	111.37	0.14	0.31	0.07	0.02	0.03	0.53						
8. Δ Physical capital investment $_{t+1}$	16.19	24.72	-0.11	0.01	-0.03	0.01	-0.04	0.11	0.11					
9. Charter $_t$	0.98	1.34	0.01	0.00	0.03	0.00	0.03	0.09	0.09	0.09				
10. Geographic district $_t$	6.18	3.32	-0.07	-0.02	-0.05	-0.03	-0.05	0.20	-0.20	-0.22	-0.15			
11. Firm size $_t$	11.89	12.68	0.18	-0.01	0.23	-0.01	0.29	0.25	0.25	0.66	0.16	-0.32		
12. Prior performance $_{t+1}$	9.98	3.49	0.78	-0.02	0.08	-0.04	0.11	-0.06	-0.12	0.12	-0.02	0.04	0.12	
13. Risk profile $_t$	0.23	1.53	0.04	0.08	0.00	0.07	0.00	0.01	0.01	0.00	0.00	-0.02	0.00	-0.03

Notes: $n = 60,328$. Correlations above 0.02 are significant at the 0.01 level. All variables are reported prior to transformations used to normalize non-normal distributions.

TABLE 2
Regression Results for Moderated Mediation

Strategic Change Context	Δ Human Capital Investment _{t+1}					
	No Change		Strategic Change		Tobin's q _{t+2}	
	Model 1a	Model 1b	Model 2a	Model 3a	Model 4a	Model 4b
Constant	-1.696*** (0.020)	-1.696*** (0.020)	1.516*** (0.023)	1.516*** (0.023)	1.515*** (0.019)	1.696*** (0.062)
Charter	0.001 (0.001)	0.002 (0.001)	-0.005*** (0.001)	-0.005*** (0.001)	-0.006*** (0.001)	-0.007*** (0.003)
Geographic district	-0.003*** (0.000)	-0.002*** (0.000)	0.004*** (0.001)	0.004*** (0.001)	0.005*** (0.001)	0.003*** (0.001)
Firm size	0.039*** (0.001)	0.031*** (0.002)	0.007*** (0.001)	0.007*** (0.001)	0.007*** (0.001)	0.009* (0.004)
Prior Tobin's q	-0.008*** (0.000)	-0.007*** (0.000)	0.074*** (0.003)	0.074*** (0.004)	0.074*** (0.004)	0.063*** (0.001)
Risk profile	0.001*** (0.000)	0.001*** (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	-0.002* (0.002)
Δ Physical capital investment _{t+1}	0.003*** (0.001)	0.007*** (0.001)	0.007*** (0.001)	0.007*** (0.001)	0.007*** (0.001)	0.008*** (0.002)
Prior average financial slack	-0.028*** (0.004)	0.004 (0.008)	0.034*** (0.004)	0.032*** (0.004)	0.034*** (0.004)	0.359* (0.148)
Prior average HR slack	0.000 (0.000)	-0.002* (0.000)	-0.038*** (0.005)	-0.039*** (0.006)	-0.034*** (0.009)	0.148*** (0.034)
Prior human capital investment _t	0.101*** (0.001)	0.217*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.002*** (0.000)
Δ Human capital investment _{t+1}			-0.046*** (0.009)	-0.046*** (0.009)	-0.046*** (0.009)	0.111*** (0.022)
Financial slack _t	0.015*** (0.001)	0.020*** (0.001)	-0.056*** (0.008)	-0.056*** (0.008)	-0.056*** (0.008)	0.074*** (0.027)
HR slack _{t+1}	0.008*** (0.000)	0.013*** (0.002)	-0.151*** (0.040)	-0.150*** (0.040)	-0.149*** (0.040)	0.303* (0.148)
HR slack x Δ Human capital investment			0.020** (0.008)	0.020** (0.008)	0.016* (0.008)	0.354*** (0.098)
HR slack x Financial slack			-0.014 (0.009)	-0.014 (0.009)	-0.014 (0.009)	0.086** (0.033)
χ^2	34.958	18.662	42.122	42.244	42.252	19.310
R ²	0.7093	0.7086	0.3206	0.3209	0.3210	0.3833

Notes: Robust standard errors reported in parentheses; n = 38,249 for no strategic change; n = 19,079 for strategic change; year dummies included in all models.

* p < .05

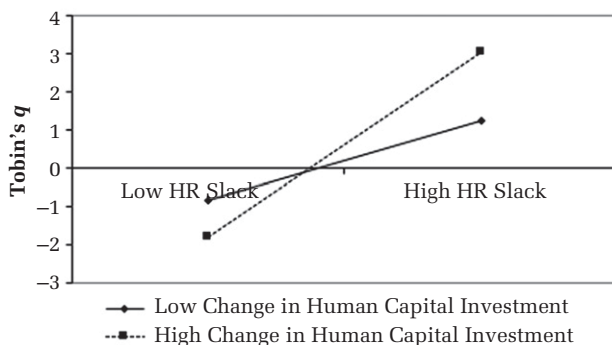
** p < .01

*** p < .001

interaction is positive and statistically significant among banks not engaged in strategic change (Model 3a) ($\beta = 0.020, p < .01$), but the effect is stronger and more statistically significant among banks engaged in strategic change (Model 3b) ($\beta = 0.354, p < .001$). The difference between these estimates is statistically significant ($t = 3.40, p < .001$). A plot of this interaction for banks engaged in strategic change is shown in Figure 2. As shown in the figure, the positive effect of HR slack on Tobin's q is more positive when change in human capital investment is high (where a one standard deviation increase in HR slack increases Tobin's q by a factor of 3, which, on average, translates to an increase in the market valuation of a firm's resources of approximately \$30 million), relative to when change in human capital investment is low (where a one standard deviation increase in HR slack increases Tobin's q by a factor of 1.3, which, on average, translates to an increase in the market valuation of a firm's resources of approximately \$10 million). The difference between the slopes is statistically significant ($t = 2.178, p < .05$). These results provide support for Hypothesis 3.

In Hypothesis 4 we predicted that, in banks engaged in strategic change, financial slack would operate through change in human capital investment to moderate the relationship between HR slack and performance. We tested this prediction of moderated mediation using the four-step procedure outlined by Edwards and Lambert (2007). In the first step, we estimated the effect of financial slack on change in human capital investment. The results are provided in Model 1a for firms not engaged in strategic change and in Model 1b for firms engaged in strategic change.

FIGURE 2
Plot of the Interaction Between HR Slack and Change in Human Capital Investment on Tobin's q , in the Context of Strategic Change



In the second step, we regressed Tobin's q on HR slack, financial slack, change in human capital investment, and the interactions between HR slack and both financial slack and change in human capital investment (Model 4). As shown in Model 4a, among banks not engaged in strategic change, while the interaction between HR slack and change in human capital investment is positive and statistically significant ($\beta = 0.016, p < .05$), the interaction between HR slack and financial slack is not significant ($\beta = -0.014, p > .10$), precluding the completion of the remaining steps to test for moderated mediation among these banks. In contrast, as shown in Model 4b, among banks engaged in strategic change, both the interactions between HR slack and change in human capital investment ($\beta = 0.296, p < .01$) and HR slack and financial slack ($\beta = 0.086, p < .01$) are positive and significant. Thus, we proceeded with the remaining steps to test our moderated mediation hypothesis for banks engaged in strategic change. Specifically, we utilized bootstrapping techniques to generate 1,000 samples to produce bias-corrected estimates for the direct and indirect effects (steps 3 and 4, respectively). Consistent with prior studies (Ferris, Lian, Brown, & Morrison, 2015), we provide a table (Table 3) of the effects partitioned by direct, indirect, and total effects, which provide evidence of an interaction between HR slack and the indirect effect of financial slack in predicting bank performance. Specifically, as shown in the table, the indirect effect of financial slack on Tobin's q through changes in human capital investment varies across low ($b = -0.06$) and high levels of HR slack ($b = 0.08$). The confidence intervals for each of these effects and the difference between these effects ($[.08] - [-.06] = 0.14, p < .01$) do not include 0, lending support to our full model.⁸

To illustrate how these empirical results relate to our conceptual model, in Figure 3 we provide a plot

⁸ While from a conceptual standpoint it is meaningful to identify which variable included in an interaction represents the moderator, from an empirical standpoint the distinction between the moderator and the independent variable is irrelevant, as the model used to test for moderation requires the inclusion of both variables, as well as the interaction between them (Hayes, 2013; Langfred, 2004). The analysis required to test our moderated mediation model required that we specify HR slack as the moderator and financial slack as the independent variable; we used the effects estimated in this analysis to compute estimates of the effects predicted in our conceptual model.

TABLE 3
Analysis of Simple Effects for Firms Engaged in Strategic Change

HR Slack	Direct Effects			Indirect Effects	Total Effects
	Pyx	Pmx	Pym	(Pym × Pmx)	(Pyx + Pym × Pmx)
Low (−1 SD)	0.08**	0.02***	−0.21***	−0.06**	0.02***
High (+1 SD)	0.08**	0.02***	0.28***	0.08**	0.16***
Differences	0.00	0.00	0.49***	0.14**	0.14**

Notes: Pyx = estimate for financial slack on Tobin's q ; Pmx = estimate for financial slack on change in human capital investment; Pym = estimate for change in human capital investment on Tobin's q .

** $p < .01$

*** $p < .001$

of the interaction, illustrating how the effect of HR slack on firm performance varies across levels of financial slack. Consistent with our predictions, the interaction plot demonstrates that the effect of HR slack on Tobin's q is more positive when financial slack is high (where a one standard deviation increase in HR slack increases Tobin's q by 0.8, which, on average, translates to an increase in the market valuation of a firm's resources of approximately \$6 million) relative to when financial slack is low (where a one standard deviation increase in HR slack increases Tobin's q by 0.1, which, on average, translates to an increase in the market valuation of a firm's resources of approximately \$750,000). The difference between the slopes is statistically significant ($t = 3.551$, $p < .001$). In addition, these results suggest that approximately 60% of the moderating effect of financial slack can be explained by the mediating effect of change in human capital investment. These results provide support for Hypothesis 4.

Robustness and Sensitivity Analyses

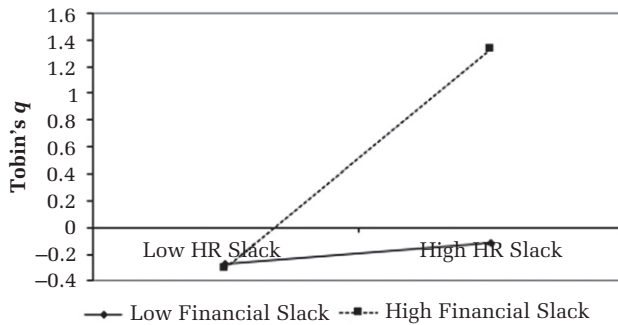
In our main analyses reported above, we tested our conceptual model using the framework proposed by Edwards and Lambert (2007). However, consistent with prior research examining a parallel theoretical model (Langfred, 2004), we also tested our model through a system of hierarchical regressions based on the four steps recommended by Baron and Kenny (1986). Importantly, this additional analysis allowed us to address concerns regarding endogeneity of two key variables: change in human capital investment and strategic change. We conducted a Durbin–Wu–Hausman test (Greene, 2003) to determine whether either of these variables was endogenous. The results of the test supported treating strategic change as an exogenous factor ($F = 1.61$, $p > .10$), but did not rule

out endogeneity for change in human capital investment ($F = 9.77$, $p < .01$).⁹ To account for the endogeneity of change in human capital investment, we employed a two-stage least squares panel estimation approach using instrumental variables. In the first stage of the model, we estimated the endogenous variable (i.e., change in human capital investment) using the same factors used to predict the dependent variable of interest, but with additional variables that served as instruments. We identified *cash and other balances due to deposits* and *noninterest revenues* as the instruments, as both were significantly related to change in human capital investment.

For an instrumental variable approach to correct for biases associated with endogeneity, instruments used in the first stage must be established as both valid and effective (Kennedy, 2008; Semadeni, Withers, & Certo, 2014). The validity of an instrument is based on its relevance and exogeneity (Semadeni et al., 2014). We assessed relevance by determining whether the addition of the instruments improved the overall fit and significance of the model estimating the endogenous variable. Comparing our initial model estimating change in

⁹ In addition to these tests, we conducted two additional analyses in response to questions raised by an anonymous reviewer about the relationship between strategic change and other relevant variables. First, we assessed whether HR slack is a significant predictor of strategic change. The results, not reported here but available upon request, showed that HR slack is not a statistically significant predictor of strategic change. Second, to rule out the possibility that our measure of strategic change simply captures firms' attempts to grow, we assessed the distribution of growth in our sample, which suggested that there was no significant difference in growth among firms in the strategic change and nonchange context. The results provide further evidence of strategic change as an exogenous factor.

FIGURE 3
Plot of the Interaction Between HR Slack and Financial Slack on Tobin's q , in the Context of Strategic Change



human capital investment (Model 1a) without the instruments (shown in Table 2) to the model including the instruments (shown in Table 4), the model fit statistic (χ^2) increases from 34,958 to 35,637. This change of 679 is statistically significant at the 1% level. Therefore, we can conclude that our instruments are relevant. We assessed exogeneity by examining whether the instruments were correlated with the residuals in the second-stage model (Semadeni et al., 2014). To test this, we estimated the second-stage models, obtained the residuals, and computed the correlation between the residuals and our instruments. The results showed that the correlation between both of the instruments and the second-stage residuals was not statistically significant ($r = 0.02$). Together, these results suggest that our instruments are both valid and effective.

Table 4 presents the results for both the models utilizing the instrumental variables technique. As shown in the table, among banks not engaged in strategic change, the effect of HR slack on Tobin's q is negative and statistically significant ($\beta = -0.215$, $p < .001$), but is positive and significant among banks engaged in strategic change ($\beta = 0.363$, $p < .01$). The difference between the estimates is statistically significant ($t = 4.202$, $p < .001$). Consistent with the results from our focal analyses, these results provide support for Hypothesis 1. To test Hypothesis 2, we examined whether financial slack predicts change in human capital investment. As shown in Table 4, while the relationship between financial slack and change in human capital investment is positive and statistically significant among banks not engaged in strategic change ($\beta = 0.018$, $p < .001$), the relationship is more positive among banks engaged in strategic change ($\beta = 0.027$, $p < .001$). The difference between these

estimates is statistically significant ($t = 4.024$, $p < .001$). To test Hypothesis 3, we include the interaction between change in human capital investment and HR slack in predicting Tobin's q . Consistent with the results from our focal analyses, the interaction is less positive among banks not engaged in strategic change ($\beta = 0.031$, $p < .01$), relative to banks engaged in strategic change ($\beta = 0.229$, $p < .001$). The difference between these estimates is also statistically significant ($t = 2.40$, $p < .05$). To test Hypothesis 4, we examined whether the interaction between HR slack and financial slack decreases (in both effect size and statistical significance) when the interaction between HR slack and change in human capital investment is added to the model. First, as shown in Table 4, the interaction between HR slack and financial slack is positive but not statistically significant among banks in the non-change context ($\beta = 0.009$, $p > .10$), but is positive and statistically significant among banks in the change context ($\beta = 0.016$, $p < .001$). Next, we entered the interaction between HR slack and change in human capital investment. As shown in the table, the effect of this interaction is positive and statistically significant for both the nonchange ($\beta = 0.032$, $p < .001$) and the strategic change ($\beta = 0.211$, $p < .001$) context. The addition of this interaction decreases the statistical significance of the interaction between HR slack and financial slack among firms in the strategic change context ($\beta = 0.011$, $p < .05$), and increases the statistical fit of the model ($\Delta\chi^2 = 37$, $p < .01$). A Sobel test provides additional support for mediation (Sobel $z = 7.99$, $p < .001$). Overall, these results are consistent with those reported in our focal analysis.

We also examined whether our results were robust to an alternative operationalization of strategic change. In our main analysis, we tested our hypotheses by estimating the models separately for banks according to whether they had or had not engaged in strategic change. While this approach allowed us to more easily interpret the complementary effects of HR slack and financial slack in the context of strategic change relative to in the nonchange context, it limited our ability to capture variance in these effects across levels of strategic change. To capture this variance, we reestimated our models using a continuous measure of strategic change. Results of this analysis are provided in Table 5 and are consistent with those obtained in our main analyses.

DISCUSSION

By examining the role of strategic change in determining the effects of HR slack and financial slack

TABLE 4
Regression Results for Moderated Mediation Using Instrumental Variables

Strategic Change Context	Tobin's q_{t+2}									
	Δ Human Capital Investment $_{t+1}$		No Strategic Change				Strategic Change			
	Model 1a	Model 1b	Model 2a	Model 3a	Model 4a	Model 5a	Model 2b	Model 3b	Model 3b	Model 4b
Constant	-1.697*** (0.017)	-1.618*** (0.026)	1.402*** (0.013)	1.401*** (0.013)	1.401*** (0.013)	1.401*** (0.014)	1.376*** (0.039)	1.375*** (0.039)	1.374*** (0.039)	1.373*** (0.040)
Charter	0.001 (0.001)	0.002 (0.001)	-0.006*** (0.001)	-0.006*** (0.001)	-0.006*** (0.001)	-0.006*** (0.001)	0.002 (0.002)	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)
Geographic district	-0.002*** (0.000)	-0.001 (0.001)	0.004*** (0.000)	0.004*** (0.001)	0.004*** (0.001)	0.004*** (0.001)	0.003*** (0.001)	0.003*** (0.001)	0.003*** (0.001)	0.003*** (0.001)
Firm size	0.031*** (0.001)	0.023*** (0.002)	0.023*** (0.001)	0.023*** (0.001)	0.023*** (0.001)	0.023*** (0.001)	0.021*** (0.003)	0.021*** (0.003)	0.021*** (0.003)	0.021*** (0.003)
Prior Tobin's q	-0.009*** (0.000)	-0.008*** (0.000)	0.065*** (0.003)	0.065*** (0.003)	0.065*** (0.003)	0.065*** (0.003)	0.070*** (0.001)	0.070*** (0.001)	0.070*** (0.001)	0.070*** (0.001)
Risk profile	0.001*** (0.000)	0.001*** (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Δ Physical capital investment $_{t+1}$	0.003*** (0.001)	0.008*** (0.001)	0.005*** (0.001)	0.005*** (0.001)	0.005*** (0.001)	0.004*** (0.001)	0.006*** (0.002)	0.006*** (0.002)	0.006*** (0.002)	0.006*** (0.003)
Prior average financial slack	-0.036*** (0.004)	0.002 (0.001)	0.044*** (0.004)	0.045*** (0.005)	0.044*** (0.004)	0.045*** (0.005)	0.627*** (0.115)	0.611*** (0.148)	0.612*** (0.148)	0.610*** (0.148)
Prior average HR slack	-0.006 (0.005)	-0.010 (0.009)	-0.046*** (0.005)	-0.042*** (0.006)	-0.042*** (0.006)	-0.040*** (0.007)	0.096*** (0.012)	0.148*** (0.034)	0.148*** (0.034)	0.146*** (0.023)
Prior human capital investment	0.009*** (0.001)	0.010*** (0.001)	-0.001*** (0.000)	-0.001*** (0.003)	-0.001*** (0.003)	-0.002*** (0.003)	-0.001*** (0.000)	-0.002*** (0.000)	-0.002*** (0.000)	-0.001*** (0.000)
Cash and balance due to deposits	-0.022* (0.010)	-0.030* (0.013)								
Noninterest revenues	-0.003*** (0.001)	-0.001*** (0.000)								
Δ Human capital investment $_t$			-0.011*** (0.000)	-0.011*** (0.000)	-0.011*** (0.000)	-0.011*** (0.000)	0.011*** (0.002)	0.011*** (0.002)	0.011*** (0.002)	0.011*** (0.002)
Financial slack $_t$	0.018*** (0.001)	0.027*** (0.002)	0.005*** (0.001)	0.005*** (0.001)	0.005*** (0.001)	0.005*** (0.001)	0.003 (0.002)	0.027 (0.022)	0.027 (0.022)	0.023 (0.022)
HR slack $_{t+1}$	0.008*** (0.001)	0.012*** (0.002)	-0.215*** (0.035)	-0.214*** (0.034)	-0.213*** (0.035)	-0.216*** (0.035)	0.363** (0.133)	0.347** (0.133)	0.347** (0.133)	0.348** (0.133)
HR slack \times Financial Slack			0.009 (0.006)	0.009 (0.006)	0.009 (0.006)	0.010 (0.019)				
HR slack \times Δ Human capital investment			0.031*** (0.002)	0.031*** (0.002)	0.032*** (0.002)	0.032*** (0.002)	0.229*** (0.010)	0.229*** (0.010)	0.211*** (0.012)	0.211*** (0.012)
χ^2	35.637	18.771	53.623	53.834	53.829	53.860	19.354	19.391	19.382	19.419
R^2	0.7122	0.7096	0.2859	0.2865	0.2862	0.2868	0.3643	0.3648	0.3647	0.3650

Notes: Robust standard errors reported in parentheses; $n = 38,249$ for no strategic change; $n = 19,079$ for strategic change; year dummies included in all models.

* $p < .05$
 ** $p < .01$
 *** $p < .001$

TABLE 5
Regression Results for Moderated Mediation Using Continuous Measure of Strategic Change

	Tobin's q_{t+2}							
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Constant	-1.447*** (0.026)	-1.527*** (0.024)	1.530*** (0.021)	1.530*** (0.021)	1.528*** (0.021)	1.519*** (0.021)	1.522*** (0.021)	1.522*** (0.021)
Charter	0.004*** (0.001)	0.004*** (0.001)	-0.006*** (0.001)	-0.005*** (0.001)	-0.005*** (0.001)	-0.005*** (0.001)	-0.005*** (0.001)	-0.005*** (0.001)
Geographic district	-0.011*** (0.001)	-0.010*** (0.001)	0.004*** (0.000)	0.004*** (0.000)	0.004*** (0.000)	0.004*** (0.000)	0.004*** (0.000)	0.004*** (0.000)
Firm size	0.070*** (0.002)	0.078*** (0.002)	0.007*** (0.001)	0.007*** (0.001)	0.007*** (0.001)	0.007*** (0.001)	0.007*** (0.001)	0.007*** (0.001)
Prior Tobin's q	-0.005*** (0.000)	-0.005*** (0.000)	0.076*** (0.000)	0.076*** (0.000)	0.076*** (0.000)	0.076*** (0.000)	0.076*** (0.000)	0.076*** (0.000)
Risk profile	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Δ Physical capital investment $_{t+1}$	0.007*** (0.000)	0.005*** (0.000)	0.008*** (0.001)	0.008*** (0.001)	0.008*** (0.001)	0.008*** (0.001)	0.008*** (0.001)	0.008*** (0.001)
Prior average financial slack	0.496*** (0.046)	0.427*** (0.46)	0.353*** (0.042)	0.355*** (0.042)	0.354*** (0.042)	0.354*** (0.042)	0.376*** (0.042)	0.366*** (0.042)
Prior average HR slack	-0.002 (0.005)	-0.006 (0.006)	-0.046*** (0.006)	-0.045*** (0.006)	-0.052*** (0.006)	-0.050*** (0.006)	-0.043*** (0.006)	-0.044*** (0.006)
Prior human capital investment $_t$	0.007*** (0.000)	0.002*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)
Δ Human capital investment $_{t+1}$			0.061*** (0.008)	0.061*** (0.008)	0.056*** (0.008)	0.054*** (0.008)	0.060*** (0.008)	0.061*** (0.008)
Financial slack $_t$	0.027*** (0.008)	0.025*** (0.008)	0.052*** (0.008)	0.052*** (0.008)	0.051*** (0.008)	0.051*** (0.008)	0.053*** (0.008)	0.053*** (0.008)
HR slack $_{t+1}$	0.581*** (0.035)	0.524*** (0.036)	0.132** (0.040)	0.188*** (0.044)	0.190*** (0.045)	0.179*** (0.045)	0.187*** (0.044)	0.188*** (0.044)
Strategic change	-0.004*** (0.001)	-0.004*** (0.001)	-0.007*** (0.001)	-0.009*** (0.001)	-0.007*** (0.003)	-0.006*** (0.002)	-0.008*** (0.001)	-0.008*** (0.001)
HR slack \times Strategic change			0.117** (0.038)	0.117** (0.038)	0.114** (0.042)	0.114** (0.066)	0.229*** (0.059)	0.229*** (0.061)
HR slack \times Δ Human capital investment					0.025*** (0.007)	0.024** (0.008)		
HR slack \times Financial slack							0.014 (0.011)	0.004 (0.011)
Strategic change \times Δ Human capital investment					0.002 (0.002)	0.001 (0.002)		
Strategic change \times Financial slack		0.211*** (0.005)					0.010*** (0.002)	0.012*** (0.002)
Strategic change \times HR slack \times Δ Human capital investment						0.152* (0.068)		0.150* (0.070)
Strategic change \times HR slack \times Financial slack								1.106*** (0.178)
F-Statistic	36.531	36.612	47.287	47.380	47.428	47.441	47.808	47.932
R ²	0.5856	0.6098	0.2870	0.2890	0.2917	0.2935	0.2915	0.2942

Note: Robust standard errors reported in parentheses.

* $p < .05$

** $p < .01$

*** $p < .001$

on firm performance, we have advanced efforts to incorporate the role of context in determining the favorability of slack resources in organizations. Our results suggest that HR slack is more positively related to firm performance in the context of strategic change, and that this relationship is even stronger with increased levels of financial slack. Moreover, we address calls to examine the mechanisms through which slack creates value, demonstrating that firms' changes in their investments in human capital serve as a key mechanism through which financial slack complements HR slack in organizations pursuing strategic change.

Contributions

Our paper contributes to research on slack and resource management. On the topic of slack, we offer three key contributions. First, our unique focus on the strategic change context as a key contingency influencing the effects of slack accounts for the fact that firms' strategies are not static, and that periods of strategic transition generate unique requirements for the effective management of firms' resources. Moreover, we contend that the notion set forth in prior slack research that particular strategies benefit from slack resources as a general rule (i.e., indefinitely) (Cheng & Kesner, 1997; Mishina et al., 2004) is likely more reflective of the *resource intensiveness* of those strategies than of the long-term benefits of *slack* in those contexts. By shifting the focus from firms' pursuits of different strategies to the pursuit of strategic change, our study allows us to instead examine a concentrated window during which slack resources have a clear, identifiable purpose as a changing firm's resource requirements differ substantially from the firm's norm. From a contingency perspective, this presents a compelling illustration of fit—i.e., excess resources in a defined time period aligned with the increased resource requirements induced by a firm's pursuit of strategic change in the same time period.

Second, our findings related to the effect of HR slack highlight an important caveat to prior findings. Whereas prior research has suggested that HR slack is idiosyncratic and absorbed, and thus offers limited value beyond an organization's current operations (George, 2005; Sharfman et al., 1988), we argue and demonstrate that the strategic change context represents a setting that is in fact quite conducive to the benefits associated with excess employees. While we acknowledge that cognitive constraints may limit the redeployment options available for any *individual*

employee in the strategic change context, we advance the idea that HR slack allows firms the flexibility to allocate individuals to the roles in which their human capital is best suited—whether this is within the firm's current or change-oriented operations.

Third, through our examination of change in human capital investment as a mediator through which financial slack complements HR slack in the strategic change context, we have addressed calls for the identification of specific mechanisms through which slack creates value, and demonstrated support for the importance of context in shaping the utilization and combined benefits of multiple types of slack in organizations. In particular, in addition to demonstrating that HR slack is more positively related to firm performance in firms pursuing strategic change, our results suggest that financial slack can be used to increase investments in an organization's human capital, thereby further improving firm performance by increasing the value and fit of the firm's HR slack relative to the needs of the strategic change context. This is noteworthy—first, because it suggests that, unlike perspectives advanced in prior research (e.g., Lecuona & Reitzig, 2014; Mishina et al., 2004), the value of HR slack is not necessarily fixed, and second, because it highlights changes in human capital investment as a proximal mechanism through which firms can utilize slack to improve performance (Lecuona & Reitzig, 2014), as well as realize complementarities between different types of slack (Paeleman & Vanacker, 2015).

Our paper offers insights that connect the study of slack to research on resource management. The consideration of different types of slack within the context of strategic change, and the examination of change in investment in human capital as a mechanism through which slack may create distinct value, offer a more comprehensive assessment of the context in which slack is held and utilized. Moreover, with these foci on both the investment and deployment decisions associated with slack in the pursuit of strategic change, we offer an examination of how firms combine multiple resource management activities to create value in dynamic contexts, tapping into the very foundation of the resource management perspective (Sirmon & Hitt, 2009).

Limitations and Future Research Directions

Our study's limitations point to opportunities for future research. First, while our focus on the banking industry allowed us to eliminate noise

associated with examining firms in different industries and to test our theory in a context in which human and financial resources play critical roles in firms' success (Sirmon & Hitt, 2009), research assessing the generalizability of our findings in other industries—particularly outside the service context—is needed.

Second, although our additional unreported analysis using net income as an alternative measure of our dependent variable reflects the robustness of our findings to multiple measures of financial performance, our study does not speak to the effects of slack on other, nonfinancial indicators of firms' health or success. Future research would benefit from the examination of how the possession and management of slack resources contribute to more proximal performance outcomes (e.g., service quality, labor productivity) in the context of strategic change.

Third, as with most other research on strategic change, we are unable to pinpoint the exact timing of the decisions and implementation involved in firms' strategic change processes (Kunisch et al., 2017). Thus, we made decisions about the timing of measurement of focal variables based on the temporal sequencing—rather than on absolute time points—associated with our theory. Future research would benefit from the development of a finer-grained understanding and collection of more continuous data related to firms' strategic change pursuits.

Finally, although we took measures to mitigate concerns related to endogeneity, our data do not provide insights into why firms engage in strategic change or accumulate slack. A richer understanding of the organizational contexts surrounding the pursuit of change and the accumulation (and utilization) of slack would provide valuable insights into the relationships observed in the present study. Future research would benefit from a more intimate look into the decisions and activities that unfold within organizations involved in these processes.

CONCLUSION

We demonstrate that the strategic change context creates an environment in which excess employees (HR slack) have an identifiable and suitable purpose and thus positively affect firm performance—arguably by increasing a firm's capacity to maintain current operations while advancing growth in new markets. We further demonstrate that financial slack enhances the value associated with excess employees within this context, in part by providing the

means for a firm to increase investments in the human capital of its workforce—thereby improving the collective alignment of employees' abilities and motivation to the multiple requirements for effective strategic change. The strength of these conclusions would be enhanced by future research assessing the characteristics of firms' HR slack and demonstrating the generalizability of our findings to nonservice contexts.

REFERENCES

- Abowd, J. M., Kramarz, F., & Margolis, D. N. 1999. High wage workers and high wage firms. *Econometrica*, 67: 251–333.
- Allison, P. D. 1990. Change scores as dependent variables in regression analysis. *Sociological Methodology*, 20: 93–114.
- Amburgey, T. L., & Dacin, T. 1994. As the left foot follows the right? The dynamics of strategic and structural change. *Academy of Management Journal*, 37: 1427–1452.
- Ansoff, H. I. 1965. *Corporate strategy: Business policy for growth and expansion*. New York, NY: McGraw-Hill Books.
- Bamford, C. E., Dean, T. J., & McDougall, P. P. 2000. An examination of the impact of initial founding conditions and decisions upon the performance of new bank start-ups. *Journal of Business Venturing*, 15: 253–277.
- Barker, V. L., & Duhaime, I. M. 1997. Strategic change in the turnaround process: Theory and empirical evidence. *Strategic Management Journal*, 18: 13–38.
- Baron, R. M., & Kenny, D. A. 1986. The moderator-mediator variable distinction in social psychology research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51: 1173–1182.
- Barney, J. 1991. Firm resources and sustained competitive advantage. *Journal of Management*, 17: 99–120.
- Batt, R. 2002. Managing customer services: Human resource practices, quit rates, and sales growth. *Academy of Management Journal*, 45: 587–597.
- Boeker, W. 1989. Strategic change: The effects of founding and history. *Academy of Management Journal*, 32: 489–515.
- Boeker, W. 1997. The influence of managerial characteristics and organizational growth. *Academy of Management Journal*, 40: 152–170.
- Bourgeois, L. J. 1981. On the measurement of organizational slack. *Academy of Management Review*, 6: 29–39.

- Bowden, E. V. 1980. *Revolution in banking*. Richmond, VA: Robert F. Dame Publishing.
- Bradley, S. W., Shepherd, D. A., & Wiklund, J. 2011. The importance of slack for new organizations facing tough environments. *Journal of Management Studies*, 48: 1071–1097.
- Buller, P. F., & McEvoy, G. M. 2012. Strategy, human resource management and performance: Sharpening line of sight. *Human Resource Management Review*, 22: 49–56.
- Burns, T., & Stalker, G. M. 1961. *The management of innovation*. London, U.K.: Tavistock.
- Chattopadhyay, P., Glick, W. H., & Huber, G. P. 2001. Organizational actions in response to threats and opportunities. *Academy of Management Journal*, 44: 937–955.
- Cheng, J., & Kesner, I. 1997. Organizational slack and response to environmental shifts. *Journal of Management*, 23: 1–18.
- Cyert, R. M., & March, J. G. 1963. *A behavioral theory of the firm*. Englewood, NJ: Free Press.
- DaDalt, P. J., Donaldson, J. R., & Garner, J. L. 2003. Will any *q* do? *Journal of Financial Research*, 26: 535–551.
- Deb, P., David, P., & O'Brien, J. 2017. When is cash good or bad for firm performance? *Strategic Management Journal*, 38: 436–454.
- Donaldson, L. 2001. *The contingency theory of the firm*. Thousand Oaks, CA: Sage Publishing.
- Edwards, J. R., & Lambert, L. S. 2007. Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods*, 12: 1–22.
- Fama, E. F. 1980. Agency problems and the theory of the firm. *Journal of Political Economy*, 1: 288–307.
- Ferris, D. L., Lian, H., Brown, D. J., & Morrison, R. 2015. Ostracism, self-esteem, and job performance: When do we self-verify and when do we self-enhance? *Academy of Management Journal*, 58: 279–297.
- Geiger, S. W., & Cashen, L. H. 2002. A multidimensional examination of slack and its impact on innovation. *Journal of Managerial Issues*, 14: 68–84.
- Geiger, S. W., & Makri, M. 2006. Exploration and exploitation innovation processes: The role of organizational slack in R&D intensive firms. *The Journal of High Technology Management Research*, 1: 97–108.
- George, G. 2005. Slack resources and the performance of privately held firms. *Academy of Management Journal*, 48: 661–676.
- Ginsberg, A. 1988. Measuring and modeling changes in strategy: Theoretical foundations and empirical directions. *Strategic Management Journal*, 9: 559–575.
- Greene, W. H. 2003. *Econometric analysis*. Upper Saddle, NJ: Prentice Hall Publishing.
- Greiner, L. E., & Bhambri, A. 1989. New CEO intervention and dynamics of deliberate strategic change. *Strategic Management Journal*, 10: 67–86.
- Hannan, M. T., & Freeman, J. 1984. Structural inertia and organizational change. *American Sociological Review*, 49: 149–164.
- Haveman, H. A. 1992. Between a rock and a hard place: Organizational change and performance under conditions of fundamental environmental transformation. *Administrative Science Quarterly*, 37: 48–75.
- Hayes, A. F. 2013. *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.
- Herold, D. M., Jayaraman, N., & Narayanaswamy, C. R. 2006. What is the relationship between organizational slack and innovation? *Journal of Managerial Issues*, 18: 372–392.
- Hitt, M. A., Bierman, L., Shimizu, K., & Kochhar, R. 2001. Direct and moderating effects of human capital on strategy and performance in professional service firms: A resource-based perspective. *Academy of Management Journal*, 44: 13–28.
- Huselid, M. A., Jackson, S. E., & Schuler, R. S. 1997. Technical and strategic human resources management effectiveness as determinants of firm performance. *Academy of Management Journal*, 40: 171–188.
- Iyer, D. N., & Miller, K. D. 2008. Performance feedback, slack, and the timing of acquisitions. *Academy of Management Journal*, 51: 808–822.
- Jensen, M. C., & Meckling, W. H. 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3: 305–360.
- Jiang, K., Lepak, D. P., Hu, J., & Baer, J. C. 2012. How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. *Academy of Management Journal*, 55: 1264–1294.
- Kelly, D., & Amburgey, T. L. 1991. Organizational inertia and momentum: A dynamic model of strategic change. *Academy of Management Journal*, 34: 591–612.
- Kennedy, P. 2008. *A guide to econometrics*. Malden, MA: Wiley-Blackwell Publishing.
- Kim, D., & Santomero, A. M. 1988. Risk in banking and capital regulation. *Journal of Finance*, 43: 1219–1233.
- Kim, J. Y., & Miner, A. S. 2007. Vicarious learning from the failures and near-failures of others: Evidence from the

- U.S. commercial banking industry. *Academy of Management Journal*, 50: 687–714.
- Kor, Y. Y., & Leblebici, H. 2005. How do interdependencies among human-capital deployment, development, and diversification strategies affect firms' financial performance?. *Strategic Management Journal*, 26: 967–985.
- Kor, Y. Y., & Mahoney, J. T. 2005. How dynamics, management, and governance of resource deployments influence firm-level performance. *Strategic Management Journal*, 26: 489–496.
- Kraatz, M. S., & Zajac, E. J. 2001. How organizational resources affect strategic change and performance in turbulent environments: Theory and evidence. *Organization Science*, 12: 632–657.
- Kunisch, S., Bartunek, J. M., Mueller, J., & Huy, Q. N. 2017. Time in strategic change research. *Academy of Management Annals*, 11: 1005–1064.
- Kuusela, P., Keil, T., & Maula, M. 2017. Driven by aspirations, but in what direction? Performance shortfalls, slack resources, and resource-consuming vs. resource-freeing organizational change. *Strategic Management Journal*, 38: 1101–1120.
- Langfred, C. W. 2004. Too much of a good thing? Negative effects of high trust and individual autonomy in self-managing teams. *Academy of Management Journal*, 47: 385–399.
- Latham, S. F., & Braun, M. R. 2008. The performance implications of financial slack during economic recession and recovery: Observations from the software industry (2001–2003). *Journal of Managerial Issues*, 20: 30–50.
- Lawrence, P. R., & Lorsch, J. W. 1967. Differentiation and integration in complex organizations. *Administrative Science Quarterly*, 12: 1–48.
- Lecuona, J. R., & Reitzig, M. 2014. Knowledge worth having in excess: The value of tacit and firm-specific human resource slack. *Strategic Management Journal*, 35: 954–973.
- Lee, S. 2011. How financial slack affects firm performance. *Journal of Economic Research*, 16: 1–27.
- Levinthal, D. A., & March, J. G. 1993. The myopia of learning. *Strategic Management Journal*, 14: 95–112.
- Lungeanu, R., Stern, I., & Zajac, E. J. 2016. When do firms change technology-sourcing vehicles? The role of poor innovative performance and financial slack. *Strategic Management Journal*, 37: 855–869.
- Luo, C., Zhang, D., Luo, B., & Ge, J. 2017. Ambidextrous strategy and firm performance: The moderating effects of organizational slack and organizational life cycle. *Business and Management Studies*, 3: 1–11.
- Martinez, R. J., & Artz, L. 2006. An examination of firm slack and risk-taking in regulated and deregulated airlines. *Journal of Managerial Issues*, 18: 11–31.
- Miller, D., & Friesen, P. H. 1984. A longitudinal study of the corporate life cycle. *Management Science*, 30: 1161–1183.
- Miller, D., & Shamsie, J. 1996. The resource-based view of the firm in two environments: The Hollywood film studios from 1936 to 1965. *Academy of Management Journal*, 39: 519–543.
- Mintzberg, H., & Waters, J. A. 1982. Tracking strategy in an entrepreneurial firm. *Academy of Management Journal*, 25: 465–499.
- Mishina, Y., Pollock, T. G., & Porac, J. F. 2004. Are more resources always better for growth? Resource stickiness in market and product expansion. *Strategic Management Journal*, 25: 1179–1197.
- Mudambi, R., & Swift, T. 2014. Knowing when to leap: Transitioning between exploitative and explorative R&D. *Strategic Management Journal*, 35: 126–145.
- Myer, A. D. 1982. Adapting to environmental jolts. *Administrative Science Quarterly*, 4: 515–537.
- Nohria, N., & Gulati, R. 1996. Is slack good or bad for innovation? *Academy of Management Journal*, 39: 1245–1264.
- Nyberg, A. J., Moliterno, T. P., Hale, D., & Lepak, D. P. 2014. Resource-based perspectives on unit-level human capital: A review and integration. *Journal of Management*, 40: 316–346.
- Oster, S. 1982. Intraindustry structure and the ease of strategic change. *Review of Economics and Statistics*, 64: 376–383.
- Paeleman, I., & Vanacker, T. 2015. Less is more, or not? On the interplay between bundles of slack resources, firm performance, and firm survival. *Journal of Management Studies*, 52: 819–848.
- Pennings, J. M., Lee, K., & Witteloostuijn, A. 1998. Human capital, social capital, and firm dissolution. *Academy of Management Journal*, 41: 425–440.
- Pfeffer, J. 1994. Competitive advantage through people. *California Management Review*, 36: 9–29.
- Pfeffer, J., & Salancik, G. R. 1978. *The external control of organizations*. New York, NY: New York Publishing.
- Ployhart, R. E., Van Iddekinge, C. H., & Mackenzie, W. I. 2011. Acquiring and developing human capital in service contexts: The interconnectedness of human capital resources. *Academy of Management Journal*, 54: 353–368.
- Powell, T. C. 1992. Organizational alignment as competitive advantage. *Strategic Management Journal*, 13: 119–134.

- Rajagopalan, N., & Spreitzer, G. M. 1997. Toward a theory of strategic change: A multi-lens perspective and integrative framework. *Academy of Management Review*, 22: 48–79.
- Ramaswamy, K. 1997. The performance impact of strategic similarity in horizontal mergers: Evidence from the U.S. banking industry. *Academy of Management Journal*, 40: 697–715.
- Reilly, G., Nyberg, A. J., Maltarich, M., & Weller, I. 2014. Human capital flows: Using context-emergent turnover (CET) theory to explore the process by which turnover, hiring, and job demands affect patient satisfaction. *Academy of Management Journal*, 57: 766–790.
- Rose, P. S. 1988. Characteristics of merging banks in the United States: Theory, empirical results, and implications for public policy. *Review of Business and Economic Research*, 24: 1–19.
- Semadeni, M., Withers, M. C., & Certo, T. 2014. The perils of endogeneity and instrumental variables in strategy research: Understanding through simulations. *Strategic Management Journal*, 35: 1070–1079.
- Sgourev, S. V., & Lent, W. 2017. When too many are not enough: Human resource slack and performance at the Dutch East India Company (1700–1795). *Human Relations*, 70: 1293–1315.
- Sharfman, M. P., Wolf, G., Chase, R. B., & Tansik, D. A. 1988. Antecedents of organizational slack. *Academy of Management Review*, 13: 601–614.
- Sirmon, D. G., & Hitt, M. A. 2009. Contingencies within dynamic managerial capabilities: Independent effects of resource investment and deployment on firm performance. *Strategic Management Journal*, 30: 1375–1394.
- Skaggs, B. C., & Youndt, M. 2004. Strategic positioning, human capital, and performance in service organizations: A customer interaction approach. *Strategic Management Journal*, 25: 85–99.
- Sirmon, D. G., Gove, S., & Hitt, M. A. 2008. Resource management in dyadic competitive rivalry: The effects of resource bundling and deployment. *Academy of Management Journal*, 51: 919–935.
- Sirmon, D. G., Hitt, M. A., & Ireland, R. D. 2007. Managing firm resources in dynamic environments to create value: Looking inside the black box. *Academy of Management Review*, 32: 273–292.
- Sirmon, D. G., Hitt, M. A., Ireland, R. D., & Gilbert, B. A. 2011. Resource orchestration to create competitive advantage: Breadth, depth, and life cycle effects. *Journal of Management*, 37: 1390–1420.
- Smith, K. G., & Grimm, C. M. 1987. Environmental variation, strategic change and firm performance: A study of railroad deregulation. *Strategic Management Journal*, 8: 363–376.
- Stemper, R. G. 1990. *The guide to successful consumer banking strategy*. New York, NY: Wiley Publishing.
- Symeonidou, N., & Nicolaou, N. 2018. Resource orchestration in startups: Synchronizing human capital investments, leveraging strategy and founder startup experience. *Strategic Entrepreneurship Journal*, 12: 194–218.
- Tan, J., & Peng, M. W. 2003. Organizational slack and firm performance during economic transitions: Two studies from an emerging economy. *Strategic Management Journal*, 24: 1249–1263.
- Van de Ven, A. H., & Poole, M. S. 1995. Explaining development and change in organizations. *Academy of Management Review*, 20: 510–540.
- Vanacker, T., Collewaert, C., & Zahra, S. A. 2017. Slack resources, firm performance, and the institutional context: Evidence from privately held European firms. *Strategic Management Journal*, 38: 1305–1328.
- Voss, G. B., Sirdeshmukh, D., & Voss, Z. G. 2008. The effects of slack resources and environmental threat on product exploration and exploitation. *Academy of Management Journal*, 51: 147–164.
- Wan, W. P., & Yiu, D. W. 2009. From crisis to opportunity: Environmental jolt, corporate acquisitions, and firm performance. *Strategic Management Journal*, 30: 791–801.
- Wang, H., Choi, J., Wan, G., & Dong, J. Q. 2016. Slack resources and the rent generating potential of firm-specific knowledge. *Journal of Management*, 42: 500–523.
- Zajac, E. J., & Shortell, S. M. 1989. Changing generic strategies: Likelihood, direction, and performance implications. *Strategic Management Journal*, 10: 413–430.



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