Value of organization capital: Does market competition and group affiliation matter?

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ABSTRACT

This study examines the role of organization capital in enhancing firm value among Indian listed firms from 2002 to 2023. We investigate this relationship in the context of market competition and business group affiliation. Results indicate a significant positive impact of organization capital on firm value, particularly for firms facing high market competition and affiliated with business groups. We address potential endogeneity and selection bias issues by conducting various robustness tests. Our findings offer novel insights into leveraging organization capital to attain higher firm value and provide empirical evidence to policymakers and managers to strengthen the role of organization capital.

1. Introduction

Organization Capital (hereafter OC) has attracted substantial interest in academic research circles over the past few years. Literature primarily focuses on its measurement (Lev and Radhakrishnan, 2005; Atkeson and Kehoe, 2005; Ewens *et al.*, 2025) and its impact on various firm-specific factors such as financial policy, innovation, cash holdings, firm life cycle, acquisitions, analyst forecasts and others (Attig and Ghoul, 2018; Francis *et al.*, 2021; Marwick *et al.*, 2020; Kim et al., 2021; Hasan and Cheung, 2023; Li *et al.*, 2018). The theoretical foundations of OC rest on several well-established theories, including the resource-based view (RBV), information asymmetry, and agency theory. From the RBV lens, OC was viewed as an intangible, firm-specific resource that effectively integrates human skills and physical capital (Prescott and Visscher, 1980; Evenson and Westphal, 1995). It is a capital that is accumulated gradually over time through firms' investment in systems, processes, routines, and managerial practices, rather than one-time expenditure (Nakamura, 1999). Thus, being unique, valuable, and difficult to imitate and replicate (Barney, 1991), OC can offer a sustained competitive advantage, thereby enhancing firm value (Lev and Radhakrishnan, 2005).

Over time, this view has evolved to include not just firm-specific resources but also key talent within firms (Jovanovic, 1979; Lev *et al.*, 2009), which further suggests a value-enhancing impact. However, contrasting theoretical viewpoints suggest potential value-eroding aspects of OC. Agency theory and information asymmetry perspectives suggest that issues such as moral hazard and managerial entrenchment may arise with key talents within the firm (Eisfeldt and Papanikolaou, 2013; Hasan *et al.*, 2021). The exit of key personnel, for instance, can result in a loss of talent and subsequently lead to a decline in firm value (Dehlen *et al.*, 2014). Furthermore, the intangible nature of OC makes it challenging to quantify, resulting in information asymmetry that can further erode

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the firm value (Gamerschlag, 2013). These different views make it unclear whether OC is a value generator or destroyer at the firm level, warranting further scrutiny. Although many studies examine different aspects of OC, there are limited studies examining OC in the context of its impact on firm value. Our study seeks to address this gap by investigating the impact of OC on the firm value of Indian listed firms.

We further examine the roles of market competition and business group affiliation in the relationship between OC and firm value. Firms often utilize their intangible assets in response to the competition they face and their affiliation with a business group (Tsai *et al.*, 2016; Arrighetti *et al.,* 2014). Prior literature suggests that high competition results in low profitability and reduced firm value (Giroud and Mueller, 2011). However, the theoretical lens of RBV suggests that at times of high market competition, OC acts as an important tool for firms to stay afloat (Barney, 1991; Nickell, 1996). OC can help in creating a sustainable competitive advantage, making firms more profitable (Lev and Radhakrishnan, 2005). Thus, OC can mitigate the impact of competitive pressures. Furthermore, through structured and transparent practices, OC would help reduce information asymmetry, leading to better-informed decision-making. Dynamic capability framework (Treece *et al.,* 1997) also suggests that firms that embed knowledge in organizational systems better adapt to competition and changing environments. Thus, for firms facing higher competition, OC should act as a competitive advantage and positively impact firm value.

Similarly, the impact of OC on firm value is expected to differ for firms affiliated with a business group or stand-alone firms. On the one hand, group firms often enjoy internal capital markets, and a firm affiliated with a business group will depend not only on its resources but also on the resources of the business group to which it is affiliated (Khanna and Palepu, 2000; Xiang and Sheng, 2024). Thus, higher OC in group-affiliated firms will facilitate more efficient resource allocation and monitoring. The resource-based view (Barney, 1991) and the knowledge-based view of the firm (Grant, 1996) also support the idea that intangible resources, when shared across the group, can be challenging to replicate and thus provide a sustained advantage. On the other hand, governance imperfections, such as weak monitoring and enforcement mechanisms, can impact this relationship (Khanna and Vafeh, 2007). Here, OC can serve as a stabilizing force by promoting accountability. It may help to mitigate the challenges posed by governance shortcomings by leveraging group synergies. Thus, the impact of OC on firm value is contingent upon the interplay between group-level synergies and internal resources. We test this relationship in our study.

We find a positive relationship between OC and firm value, supporting the idea that intangible capital adds value to the firm. Specifically, a 1% increase in OC leads to a 2.243% increase in firm value. The economic significance of this finding is evident, as firms in the 75th percentile of OC have 21.62% more value than those in the 25th percentile. This relationship remains even after controlling for factors such as leverage, size, profitability, tangibility, research and development expenses, age, growth, and promoter ownership. Our findings also indicate that OC is more valuable for firms facing high market competition and firms belonging to business groups. To the best of our knowledge, no study has examined the influence of OC on the value of firms to this extent. We also test the robustness of our results. We address potential endogeneity using a two-stage least squares (2SLS) regression approach, potential autocorrelation, and heteroscedasticity using feasible generalized least squares (FGLS) and selection bias by applying propensity score matching (PSM) and Heckman's two-stage regression estimation.

2. Data and methodology

Our sample includes listed Indian firms from 2002 to 2023, excluding financial firms and those with missing or incomplete data. We winsorize continuous variables at the 1st and 99th percentiles to mitigate outliers, resulting in 50,297 firm-year observations. All the data is taken from the Centre for Monitoring Indian Economy (CMIE) Prowess IQ database.

To investigate the effect of OC on firm value (TQ) and to analyze the interaction of market competition (MC) and business group affiliation (BG), we utilize the following models:

$$TQ_{i,t} = \alpha_1 + \beta_1 OC_{i,t} + \gamma_1 Z_{i,t-1} + \mu_i + \lambda_t + \epsilon_{i,t} \tag{1}$$

$$TQ_{i,t} = \alpha_2 + \beta_2 OC_{i,t} + \beta_3 MC_{i,t} + \beta_4 (OC_{i,t} * MC_{i,t}) + \gamma_2 Z_{i,t-1} + \mu_i + \lambda_t + \epsilon_{i,t} \tag{2}$$

$$TQ_{i,t} = \alpha_3 + \beta_5 OC_{i,t} + \beta_6 BG_{i,t} + \beta_7 (OC_{i,t} * BG_{i,t}) + \gamma_3 Z_{i,t-1} + \mu_i + \lambda_t + \epsilon_{i,t} \tag{3}$$

Where, $TQ_{i,t}$ is Tobin's Q for measuring firm value for firm i at year t, γ are values are coefficients for control variables $Z_{i,t}$, α represents constant term; β values are estimated coefficients of main explanatory variables, μ_i represent firm fixed effects, λ_t denotes year (time) fixed effects, and $\epsilon_{i,t}$ are the error terms.

To measure OC, we follow the methodology prescribed in the literature (Eisfedt and Papanikolau, 2014; Peter and Taylor, 2017; Hasan *et al.*, 2021). Accordingly, OC is calculated using the perpetual inventory method to the firm's fraction of previous selling, general, and administrative expenses (SG&A). Since a large part of SG&A costs is related to expenses on information technology, employee training, brand enhancement, and setting up distribution channels, it is expected that the latent value derived from this cost is related to firm-specific OC (Lev and Radhakrishnan, 2005). Following the literature (Hasan *et al.*, 2021), we use the following equation to calculate the OC for individual firm i in year t.

$$OC_{it} = OC_{it-1}(1 - \delta_0) + SG\&A_{it} * \lambda_{OC} \tag{5}$$

We estimate the first-year OC at time 0 as

$$OC_{it_0} = \frac{SG\&A_{it_0} * \lambda_{OC}}{g + \delta_0} \tag{6}$$

Where OC_{it} and $SG\&A_{it}$ denote Organizational capital and Selling, general, and administrative expenses for firm i in year t, respectively. δ_0 denotes the depreciation rate of OC, and λ_{OC} is the percentage of SG&A that is invested in OC. Following the literature (Peters and Taylor, 2017; Hasan *et al.*, 2021), we include a depreciation rate equal to 20% and set λ_{OC} equal to 30% of SG&A. g is estimated as the average real growth of firm-level SG&A expenses, which is 14.2% in our sample. We further replace the missing SG&A values with zero.[1] Other measures and definitions are presented in Table 1, Panel I.

3. Results and key findings

The summary statistics and correlation matrix are shown in Table 1, Panel II. On average, the firms have approximately 9.2 percent of theory total assets invested in OC, highlighting the conservative nature of firms in terms of maintaining higher OC. The observed mean of market competitiveness is 0.636, with a standard deviation of 0.289, elucidating the diversity in market competitiveness across firms. The correlation matrix indicates that OC positively correlates with firm value. We do not face multicollinearity in our analysis, which is also later confirmed by a mean variance inflation factor of 1.12 (not reported).

3.1. Impact of organization capital on firm value

Our baseline regression results with different estimates are presented in Table 2. Our results suggest that OC has a positive impact on firm value. With a one-unit increase in OC, there is a 2.24-unit increase in firm value after considering for control variables and using fixed and year fixed effects (Model 3). To control for potential endogeneity between OC and firm value (Eisfeldt and Papani-kolaou, 2013), we use a two-stage least squares (2SLS) instrumental variable approach. For the 2SLS estimation, we use industry-level OC *(IND_OC)* and first-year SG&A *(FST_SGA)* expenses as instruments. Industry-level OC is correlated with firm-level OC but is unlikely to impact a firm's current value, thus mitigating endogeneity concerns (Hasan and Cheung, 2023). Similarly, first-year SG&A (scaled by TA) reflects the initial firm's investment behaviour used in constructing OC but is plausibly exogenous to the current value of the firm. Model 4 presents the first stage results and reflects the validity of our instruments. Model 5 presents the second-stage results, which validate our baseline findings of a positive and significant effect of OC on firm value.

We also observe that our estimation is not affected by under- and weak identification of instruments. The Kleibergen-Paap rk LM statistic ($\chi^2 = 310.263$, p = 0.000) strongly rejects the null hypothesis of under-identification, confirming that the instruments are relevant. The Kleibergen-Paap rk Wald F-statistic is 789.837, which is substantially above the Stock and Yogo (2005) critical value of 19.93 for a 10% maximal IV size, further suggesting that the instruments used are not weak. In addition, the Hansen J statistic ($\chi^2 = 1.679$, p = 0.195) fails to reject the null hypothesis that the instruments are valid and uncorrelated with the error term.

Model 6 presents FGLS regression results. FGLS addresses heteroscedasticity and autocorrelation by accounting for non-constant variance across panels (Hansen, 2007). The Wooldridge test (F = 784.319, p > F = 0.000) indicates first-order autocorrelation, while the Breusch-Pagan test (p > Chi2 = 0.000) suggests heterogeneity (Wooldridge, 2010). FGLS adds further robustness in handling these issues (Hunjra *et al.*, 2022). However, as suggested by Petersen (2009) more robust clustering methods are required; specifically, we include firm-level standard error clustering in our regressions. Overall, our results corroborate the baseline findings that OC has a positive and significant impact on firm value.

3.2. Robustness test results: Impact of organization capital on firm value

3.2.1. Alternative measures for organization capital
We consider three alternative specifications for OC in Table 3, Panel 1. Model 1 estimates OC using the flow method (Hasan *et al.*, 2021), rather than the more common perpetual inventory method. The second specification scales OC by lagged PPE rather than total assets (Hasan, 2018; Hasan *et al.*, 2021). The third uses lagged OC (James *et al.*, 2024). Our results remain consistent with our baseline findings.

3.2.2. Addressing sample selection bias
To ensure that no sample selection bias is present in our dataset, we run a regression using a matched sample after applying the propensity score matching (PSM) and the Heckman two-stage regression model. Our sample, being a non-balanced panel, may potentially suffer from issues related to the inclusion criteria. Firms initially included in the sample may exit due to firm-specific characteristics, or new firms may be introduced over time. Thus, the firms that remain in the sample for the entire period may systematically differ from those that drop out or are added later. The seminal contributions by Heckman (1976, 1979) and Hausman and Wise (1979) highlighted that attrition bias (or selection bias) is a serious issue, and ignoring this can lead to misleading results. To address this, we create a treatment variable for firms that exit the sample.

For PSM, we match each treated unit with one control unit having the closest propensity score, allowing a maximum distance of

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[1] Following Hasan & Cheung (2018), we also test our analysis by replacing the missing values of SG&A with zero, and our results are consistent with our findings.

Table 1

Panel I - Descriptive statistics.

Variable name	Measure	N	Mean	P50	SD	Min	Max
Tobin's Q (TQ)	The sum of the market value of equity and the book value of debt/book value of total assets	50297	1.251	0.762	1.556	0.000	11.413
Organization capital (OC)	Accumulated intangible investments in a firm's operational capabilities, primarily measured using the deflated SG&A expenses and estimated through the perpetual inventory method/Total assets	50297	0.092	0.066	0.096	0.000	0.950
Market Competition (MC)	The Herfindahl-Hirschman Index (HHI) is calculated as the sum of the squared market shares of all firms in an industry based on revenue.	50297	0.636	0.743	0.289	0.000	0.963
Leverage (LV)	Total liabilities at year-end/total assets at year-end	50297	0.246	0.219	0.213	0.000	0.907
Size (SZ)	Log of total assets at year-end	50297	6.845	7.027	2.507	-1.204	12.045
Profitability (PT)	Net profit after tax/total assets at year-end	50297	0.107	0.102	0.106	-.316	0.536
Tangibility (TG)	Fixed assets at year-end/total assets at year-end	50297	0.300	0.277	0.207	0	0.884
Research and development (RD)	Research and development expenses/sales	50297	0.002	0.000	0.007	0	0.053
Age (AG)	Current year – Incorporation year	50297	31.060	27.000	18.156	1	94
Growth (GR)	(Current year net sales – previous year net sales)/previous year's net sales	50297	0.095	0.079	0.39	-0.902	2.000
Promoter Ownership (PO)	Percentage ownership by promoters	50297	53.645	55.010	17.864	0.010	100
Business group affiliation (BG)	Values equal to 1 if affiliated with a business group, and 0 otherwise	50297	0.550	1.000	0.498	0	1

Panel II – Correlation matrix												Panel III – Results of T-test		
Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	OC Quantile	Tobin's Q	Obs.
(1) TQ	1.000												Quantile 1	1.330	12576
(2) OC	0.175*	1.000											Quantile 2	1.365	12597
(3) MC	-0.028*	-0.098*	1.000										Quantile 3	1.264	12607
(4) LV	-0.184*	-0.109*	0.056*	1.000									Quantile 4	1.230	12517
(5) SZ	0.126*	0.058*	0.059*	0.127*	1.000										
(6) PT	0.222*	0.123*	0.006	-0.087*	0.333*	1.000							**In between Quantiles**	**Mean difference**	**T-test (prob.)**
(7) TG	-0.048*	-0.006	0.030*	0.254*	0.020*	0.035*	1.000						1 vs 2	-0.0357	-1.333 (0.908)
(8) RD	0.101*	0.037*	0.047*	-0.067*	0.164*	0.072*	-0.016*	1.000					1 vs 3	0.0650	2.455 (0.007)
(9) AG	0.042*	0.136*	0.031*	-0.047*	0.257*	0.056*	-0.014*	0.057*	1.000				1 vs 4	0.0991	3.910 (0.000)
(10) GR	0.075*	-0.048*	0.003	0.011*	0.191*	0.254*	0.007	0.004	-0.037*	1.000			2 vs 3	0.1007	3.713 (0.000)
(11) PO	0.094*	0.057*	0.007	0.023*	0.212*	0.139*	0.010*	0.000	0.102*	0.043*	1.000		2 vs 4	0.1348	5.179 (0.000)
(12) BG	0.093*	0.026*	0.053*	0.025*	0.468*	0.167*	0.050*	0.141*	0.187*	0.053*	0.107*	1.000	3 vs 4	0.0340	1.325 (0.185)

Note: Table 1 reports the variable measures and summary statistics in Panel 1, and the correlation matrix in Panel II for key variables in our sample firms, and the T-test results. * indicate statistical significance at p<0.1

Table 2
Impact of organization capital on firm value - baseline regression with various estimation methods.

	Univariate regression	Multivariate regression	Fixed Effects regression	2SLS (1st stage)	2SLS (2nd stage)	FGLS AR (1)
	TQ (1)	TQ (2)	TQ (3)	OC (4)	TQ (5)	TQ (6)
OC	2.830*** (0.071)	2.285*** (0.072)	2.243*** (0.378)		3.283*** (0.468)	3.113*** (0.099)
IND_OC				0.795*** (0.034)		
FST_SGA				0.531*** (0.026)		
LV		-1.126*** (0.034)	-0.427*** (0.065)	-0.013*** (0.003)	-0.956*** (0.079)	-0.369*** (0.034)
SZ		0.049*** (0.003)	0.010 (0.018)	-0.003*** (0.001)	0.037*** (0.010)	0.021*** (0.005)
PT		2.305*** (0.073)	1.367*** (0.137)	0.008 (0.008)	2.478*** (0.230)	0.439*** (0.050)
TG		-0.031 (0.035)	0.345*** (0.096)	0.013** (0.005)	0.103 (0.094)	0.047 (0.044)
RD		15.044*** (0.955)	5.713* (2.994)	-0.154 (0.136)	15.02*** (2.323)	8.081*** (1.194)
AG		-0.001*** (0.000)	-0.018 (0.023)	0.000*** (0.001)	-0.004*** (0.001)	-0.003*** (0.001)
GR		0.057*** (0.019)	0.118*** (0.021)	-0.005*** (0.001)	0.124*** (0.028)	0.035*** (0.010)
PO		0.006*** (0.000)	0.005*** (0.001)	0.000 (0.000)	0.004*** (0.001)	0.004*** (0.001)
Year FE		-	YES	YES	YES	YES
Firm FE		-	YES	NO	NO	NO
Constant	0.991*** (0.009)	0.406*** (0.031)	0.331 (0.476)	-0.018*** (0.006)	-0.092 (0.098)	0.122 (0.053)
N	50297	44803	44803	44803	44803	44632
R²/ Wald chi2 (p-value)	0.031	0.115	0.119	0.189	0.153	5137.37 (0.000)
Under-identification test - Kleibergen-Paap rk LM statistic (p-value)	-	-	-	310.263 (0.000)	-	-
Weak identification test - Kleibergen-Paap rk Wald F statistic	-	-	-	789.837	-	-
Stock and Yogo (2005) 10% maximal IV size (Critical Value)	-	-	-	19.930	-	-
Overidentification test - Hansen J Statistic (Chi2-p value)	-	-	-	1.679 (0.195)	-	-

Note: Table 2 reports the panel regression estimates of our baseline model. Univariate regression (model 1), Multivariate regression (model 2), fixed effects regression (model 3), 2-stage least squares estimation (models 4 and 5), and feasible generalized least squares results (model 6) are presented in this table. The dependent variable is Tobin's Q (TQ), and the key independent variable is organization capital (OC). Control variables are one year lagged values[2]. Definitions of variables are presented in Table 1. ***,**, and * indicate 1%, 5%, and 10% significance levels, and robust standard errors clustered at the firm level are in parentheses.

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[2] We thank the anonymous reviewer for this valuable suggestion of using lagged control variables to mitigate some endogeneity issues.

0.001 between the pairs. Model 4 of Panel II in Table 3 presents the regression results using the matched sample for PSM. After matching, the absolute standardized bias is reduced to a mean of 2.2 (not reported in the table). Models 5 and 6 present the Heckman two-stage results. The Inverse Mills Ratio (IMR) from the first stage corrects for selection bias due to firm exit. A significant IMR confirms selection bias, ensuring unbiased estimates in the second-stage regression.

3.3. Impact of OC on firm value across market competition and business group affiliation

Table 4 summarizes regressions of the impact of OC on firm value across market-competition quantiles. Model (1) presents results for firms facing low market competition (quantile 1), Model (2) for quantile 2, Model (3) for quantile 3, and Model (4) presents results for firms facing high market competition (quantile 4). Results suggest that OC follows a "U-shaped" pattern across the competition quantiles. OC is a valuable resource and commands a premium when competition is low, and also helps firms remain resilient when competition is high. Notably, the beta coefficient of the interaction term 2.889 in model 5 indicates that each unit of OC offsets the

Table 3
Robustness test results: Impact of organization capital on firm value.

	Panel 1: Alternate specifications of organization capital			Panel II: Addressing sample selection bias		
	Flow OC TQ	OC/ PPE$_{t-1}$ TQ	OC$_{t-1}$ TQ	PSM TQ	Heckman two-stage model TQ	
	(1)	(2)	(3)	(4)	(5) 1st stage	(6) 2nd stage
OC	1.646***	0.060***	0.053**	2.033***	-0.853***	1.111***
	(.313)	(0.020)	(0.021)	(0.584)	(0.068)	(0.120)
IMR						1.338***
						(0.150)
Rho						0.767
Sigma						1.744
Controls	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES	NO	NO
Constant	0.425	0.584	0.396	-1.096*	1.558***	1.558***
	(0.472)	(0.411)	(0.467)	(0.601)	(0.000)	(0.150)
Obs.	44803	50197	44663	8155	44803	27458
R-squared / Wald chi2	0.112	0.106	0.109	0.183	0.162	2676.31
Prob > chi2						(0.000)

Panel III: Propensity score matching effective test

Variable	Unmatched Matched	Mean Treated	Control	%reduction %bias	|bias|	t-test t	p>t
OC	U	0.083	0.108	-26.50		-28.18	0.000
	M	0.083	0.085	-2.70	90	-3.69	0.000
LV	U	0.246	0.245	0.60		0.68	0.494
	M	0.246	0.246	-0.10	87.5	-0.1	0.921
SZ	U	6.289	7.829	-66.30		-69.25	0.000
	M	6.289	6.170	5.10	92.2	6.13	0.000
PT	U	0.092	0.134	-42.20		-44.47	0.000
	M	0.092	0.094	-2.20	94.8	-2.8	0.005
TG	U	0.284	0.329	-22.40		-23.44	0.000
	M	0.284	0.293	-4.20	81.2	-5.24	0.000
RD	U	0.001	0.003	-26.60		-30.21	0.000
	M	0.001	0.001	-0.40	98.5	-0.69	0.489
AG	U	27.157	37.960	-60.20		-66.9	0.000
	M	27.157	27.426	-1.50	97.5	-2.26	0.024
GR	U	0.082	0.119	-10.00		-10.26	0.000
	M	0.082	0.090	-2.30	76.6	-2.79	0.005
PO	U	52.897	54.967	-11.90		-12.5	0.000
	M	52.897	53.178	-1.60	86.4	-1.97	0.049

Note: Table 3 presents robustness test results using alternate specifications of organization capital (Panel I), and addressing sample selection bias using propensity score matching (PSM) and Heckman two-stage model results (Panel II). Panel III shows the PSM effective tests. IMR is the Inverse Mills Ratio. Definitions of all other variables are presented in Table 1. ***, **, and * indicate 1%, 5%, and 10% significance levels, and robust standard errors clustered at the firm level are in parentheses.

adverse effect of competition. The results suggest the strategic importance OC plays in operating as a dynamic strategic resource during times of low and high market competition. Model (6) presents results on the impact of OC on firm value for firms with business group affiliation (BG). The results suggest that business group-affiliated firms can leverage OC to have a positive impact on firm value. The findings support the value enhancing nature of organization capital.

4. Conclusion

Our study highlights the positive impact of OC on Indian firms. We also find that OC acts as a differentiator for firms in extreme competitive environment. Specifically, OC provides a sustained competitive advantage, thereby mitigating the impact of high market competition and enhancing firm value. Furthermore, business group affiliation enhances the value of OC by facilitating more efficient resource allocation and monitoring. These findings underscore that the benefits of OC are enhanced in the context of high market competition and group affiliation. The paper contributes to the academic literature by providing support for the resource-based view of OC. Moreover, in practice, firms can optimally allocate resources to intangible assets such as OC, which can enhance firm value.

Table 4
Impact of organization capital on firm value across market competition and business group affiliation.

	(1) MC-Q1 TQ	(2) MC-Q2 TQ	(3) MC-Q3 TQ	(4) MC-Q4 TQ	(5) TQ	(6) TQ
OC	1.934***	0.998	0.862	3.43***	0.245	1.111***
	(0.659)	(0.634)	(0.65)	(1.15)	(0.429)	(0.336)
MC					-0.263**	
					(0.126)	
OC*MC					2.889***	
					(0.694)	
BG						0.168**
						(0.071)
OC*BG						1.366**
						(0.609)
Year FE	YES	YES	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES	YES	YES
Controls	YES	YES	YES	YES	YES	YES
Constant	1.298	0.007	0.48	0.364	0.509	0.226**
	(2.003)	(0.567)	(0.88)	(0.537)	(0.478)	(0.093)
N.	11107	11180	11298	11312	44803	44803
R^2	0.118	0.13	0.135	0.105	0.118	0.114

Note: Table 4 reports results for the impact of organization capital (OC) on firm value (TQ) across market competition (MC) and business group affiliation (BG). Columns (1), (2), (3), and (4) represent firms divided into four quantiles - Q1 (low), Q2, Q3, and Q4 (high) based on market competition; column (5) include interaction terms of MC and OC and. Column (6) presents the results of interaction between OC and business group dummy (BG). Definitions of variables are presented in Table 1. ***, **, and * indicate 1%, 5%, and 10% significance levels, and robust standard errors clustered at the firm level are in parentheses

CRediT authorship contribution statement

Akanksha Saxena: Writing – review & editing, Writing – original draft, Validation, Software, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Smita Mazumdar:** Writing – review & editing, Writing – original draft, Supervision, Project administration, Conceptualization. **Himanshu Seth:** Writing – review & editing, Writing – original draft, Validation, Supervision, Project administration, Methodology, Conceptualization.

Declaration of competing interest

The authors declare that they have no conflicts of interest.

Data availability

Data will be made available on request.

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