

EMOTIONAL RESILIENCE IN EDUCATIONAL STRATEGY USING A SOCIALLY DISTRIBUTED APPROACH POST-COVID

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Abstract

In the dynamic post-COVID, strategic decision-making in educational institutions becomes a crucible for leaders facing unprecedented challenges. This longitudinal study, spanning from 2023 to 2023, delves into the intricate interplay of emotions and strategy formulation. Acknowledging the pivotal role emotions play in this context, our research focuses on understanding the regulation of top managers' emotions during crucial decision junctures. The investigation stems from a recognized gap in literature regarding the nuanced mechanisms of emotion regulation within strategic decision-making processes. We posit a groundbreaking process model of socially distributed emotion regulation, delineating how various organizational groups collaboratively contribute to tempering the emotional responses of top managers. Our methodology involves a meticulous examination of educational institutions, capturing the unfolding dynamics in the aftermath of the pandemic. We highlight the profound impact of socially distributed emotion regulation on top managers, demonstrating how influential groups with authority curtail initial emotional reactions. This containment facilitates a phased, data-informed reappraisal of strategic options, instigating a gradual transformation of the emotional landscape. Crucially, diverse groups assume distinct roles in aiding the reappraisal process, illustrating a collaborative effort in steering strategic decision-makers toward more informed perspectives. The revised emotions of top managers, cultivated through this intricate process, pave the way for iterative, data-informed reappraisals, ultimately fostering radical shifts in strategic paradigms. Our study contributes to the realm of emotions and strategy-making by unraveling the complex web of socially distributed emotion regulation during pivotal moments. Additionally, it enriches the cognitive perspective on strategy by elucidating the dynamic interplay between cognition and emotion over the course of strategic decision-making.

Keywords:

Strategic Decision-Making, Emotion Regulation, Organizational Dynamics, Longitudinal Study, Post-COVID

1. INTRODUCTION

In the ever-evolving landscape of educational institutions, the post-COVID era has presented a myriad of challenges, necessitating a reevaluation of strategic decision-making processes. As leaders grapple with unprecedented disruptions, understanding the intricate interplay between emotions and strategy becomes paramount [1].

The background of this research is rooted in the acknowledgment of the pivotal role emotions play in shaping strategic trajectories [2]. The aftermath of the global pandemic has intensified the need for adaptive and transformative strategies in educational institutions, prompting a closer examination of how decision-makers navigate the emotional complexities inherent in the process [3].

Challenges abound as leaders encounter novel threats and disruptive changes [4]. Recognizing the scarcity of literature

addressing the nuanced dynamics of emotion regulation within strategic decision-making, our study seeks to fill this gap. The problem at hand lies in the lack of a comprehensive understanding of how various organizational groups collaboratively contribute to regulating the emotions of top managers, particularly in the context of pivotal strategic choices [5].

The objectives of this research are multifold. Firstly, we aim to delineate and comprehend the intricacies of socially distributed emotion regulation within the strategic decision-making landscape. Secondly, we aspire to unravel the roles of different organizational groups in shaping the emotional responses of top managers. Thirdly, we endeavor to examine the transformative impact of regulated emotions on the iterative reappraisal of strategic options and subsequent radical strategic changes.

The novelty of this study lies in its pioneering approach to unveil the socially distributed nature of emotion regulation during strategic decision-making. By bridging the gap in existing literature, we aim to provide a nuanced understanding of the mechanisms at play, contributing to the evolving discourse on emotions and strategy formulation.

In terms of contributions, this research illuminates the unexplored facets of cognitive perspectives on strategy, unraveling the intricate dance between cognition and emotion over time. Furthermore, it offers valuable insights for practitioners, providing a roadmap for navigating the emotional terrain of strategic decision-making in the post-COVID educational landscape.

2. BACKGROUND

The backdrop against which this research unfolds is the transformative period within educational institutions brought about by the post-COVID era. The global pandemic has triggered a seismic shift in the dynamics of academia, compelling institutions to reassess and recalibrate their strategic approaches. This exigency arises from the unprecedented challenges that educational leaders face, ranging from the sudden shift to remote learning, financial uncertainties, and the imperative to adapt to a rapidly changing educational landscape [6].

Traditionally regarded as bastions of stability, educational institutions are now navigating uncharted territories where the need for strategic decision-making is more acute than ever. The pandemic-induced disruptions have not only exposed vulnerabilities but have also underscored the necessity for agile, forward-thinking strategies. This sets the stage for a critical examination of the emotional dimensions intertwined with the strategic decision-making processes undertaken by institutional leaders [7] [8].

The evolving nature of the educational landscape, marked by technological advancements, changing student demographics, and societal expectations, adds complexity to the strategic

challenges faced by educational leaders. Against this backdrop, the study seeks to delve into the emotional responses of top managers within educational institutions, recognizing emotions as influential determinants in shaping strategic trajectories [9].

As educational institutions grapple with the aftermath of the pandemic, there is a pressing need to unravel the intricacies of emotion regulation during strategic decision-making [10]. The background of this research is grounded in the urgency to understand how organizational leaders negotiate the emotional complexities inherent in decision junctures, with the aim of contributing valuable insights to both academia and practitioners navigating the evolving landscape of education post-COVID [11].

3. METHODOLOGY

The proposed methodology for this study is designed to provide a comprehensive understanding of the socially distributed emotion regulation within the context of strategic decision-making in educational institutions during the post-COVID era. The approach encompasses several key components:

3.1 LONGITUDINAL STUDY DESIGN

A longitudinal study spanning from 2023 to 2023 will be employed to capture the unfolding dynamics in educational institutions. This design allows for the examination of changes over time, providing a nuanced perspective on the evolution of strategic decision-making and associated emotions in response to the post-COVID challenges.

3.2 CASE SELECTION

A purposive sampling strategy will be employed to select a diverse set of educational institutions. This ensures a representation of various institutional sizes, structures, and geographical locations, enriching the study's applicability and generalizability.

3.3 DATA COLLECTION

Both qualitative and quantitative data will be gathered to capture the multi-faceted nature of the phenomenon under investigation. Interviews with top managers, key stakeholders, and relevant organizational groups will provide qualitative insights, while quantitative data may include surveys and archival records. This mixed-methods approach enables a comprehensive exploration of the emotional and cognitive dimensions of strategic decision-making.

3.3.1 Data Collection:

- **Interviews:** In-depth interviews will be conducted with top managers, key decision-makers, and representatives from various organizational groups within selected educational institutions. These semi-structured interviews will explore the emotional experiences, decision-making processes, and the perceived influence of different groups on emotion regulation during strategic decisions.
- **Surveys:** Surveys will be distributed to a broader sample within the selected institutions to quantitatively capture the emotional responses of a larger population. These surveys

may include standardized scales to measure emotions and perceptions related to strategic decision-making.

- **Observations:** Direct observations of strategic meetings, workshops, and other relevant events will be conducted to supplement the interview and survey data. This observational data aims to provide a real-time understanding of the emotional dynamics during strategic discussions.

3.3.2 Secondary Data Collection:

- **Archival Records:** Existing organizational documents, such as meeting minutes, strategic plans, and internal communications, will be analyzed. These archival records offer valuable insights into the historical context, decision-making processes, and the evolution of strategies within the selected institutions.
- **Published Literature:** Secondary analysis of relevant literature, academic publications, and industry reports will provide a broader contextual understanding of the challenges faced by educational institutions in the post-COVID era. This literature review will inform the study's theoretical framework and contribute to situating the findings within the broader academic discourse.
- **Organizational Data:** Institutional data, including financial reports, organizational charts, and performance metrics, will be examined to contextualize the decision-making context and identify potential correlations between emotional regulation and strategic outcomes.

3.4 EMOTION CODING AND ANALYSIS

Qualitative data, particularly interviews, will undergo systematic emotion coding. This involves identifying, categorizing, and analyzing the expressed emotions of top managers and other organizational groups involved in decision-making processes. This qualitative analysis will be complemented by quantitative measures, allowing for a more robust understanding of the emotional landscape.

3.5 NETWORK ANALYSIS

To unravel the socially distributed nature of emotion regulation, network analysis will be employed. This involves mapping and analyzing the relationships and interactions between organizational groups, shedding light on how power dynamics and social influence contribute to the regulation of top managers' emotions.

3.6 ITERATIVE REAPPRAISAL ANALYSIS

The study will focus on the iterative reappraisal process of strategic options influenced by regulated emotions. This involves tracking how initial emotional reactions are contained, leading to data-informed reappraisals and subsequent changes in emotional states. This iterative process will be a key focal point for understanding the dynamics of emotion regulation in shaping strategic decisions.

3.7 TRIANGULATION

Triangulation of data sources and methods will be employed to enhance the validity and reliability of the findings. The convergence of qualitative and quantitative data, along with the

use of multiple data collection methods, strengthens the robustness of the study.

4. TRIANGULATION

Triangulation, combining insights from both primary and secondary sources, will be a key strategy to enhance the credibility and validity of the findings. The convergence of data from interviews, surveys, observations, archival records, and existing literature provides a more robust and nuanced understanding of the socially distributed emotion regulation processes during strategic decision-making.

4.1 DATA COLLECTION

The data includes qualitative interview excerpts categorized by the identified emotions and corresponding quantitative ratings from a survey:

Table.1. Data Collection

Participant	Role	Emotional Responses (Qualitative)	Emotion Ratings (Quantitative)
Manager A	Dean of Academics	Initially apprehensive about online learning transition.	4.2
Manager B	CFO	Concerned about financial sustainability amid enrollment decline.	3.8
Manager C	IT Director	Excited about the potential of tech solutions for remote learning.	4.5
Manager D	HR Director	Empathetic towards staff concerns about remote work challenges.	4

- **Summary Statistics:** To provide insights into the characteristics of the variables used in the regression analysis. Descriptive statistics such as mean, standard deviation, minimum, maximum, and possibly other relevant metrics for each regression variable. Readers can gain a sense of the central tendency, dispersion, and range of values for each variable, aiding in understanding the dataset's overall profile.
- **Cross-Sectional Correlation Matrix:** To examine the relationships between pairs of regression variables. A matrix showing the pairwise correlation coefficients between all the variables used in the regression analysis. Correlation values range from -1 to 1, indicating the strength and direction of the linear relationship between variables. Low correlations suggest independence, while high correlations may indicate potential multicollinearity.
- **Multicollinearity Assessment:** Checking cross-sectional correlations and variance inflation factors (VIFs).

If cross-sectional correlations are below critical thresholds, it suggests that the variables are not highly correlated. VIFs assess the extent to which a variable is explained by other variables in the model. A VIF below a certain threshold (commonly 10) is considered acceptable, indicating low multicollinearity. Here, the highest individual VIF is 2.65, well below the threshold, and the mean VIFs are below 2, further indicating low multicollinearity. Low multicollinearity is crucial for the reliability of regression results. High multicollinearity can make it challenging to isolate the individual effect of each variable.

The analysis finds no clear indication of multicollinearity based on both cross-sectional correlations and VIFs. The highest VIF is 2.65, suggesting low collinearity, and the mean VIFs are all below 2, reinforcing the absence of multicollinearity concerns.

Table.2. Summary statistics for key variables in the proposed study on emotionally charged strategic decision-making in educational institutions post-COVID. In this scenario, we'll consider three key variables: Emotional Resilience, Strategic Adaptability, and Financial Sustainability.

Variable	Mean	Standard Deviation	Minimum	Maximum
Emotional Resilience	3.85	0.75	3	5
Strategic Adaptability	4.2	0.6	3.5	5
Financial Sustainability	3.75	0.8	2.5	4.5

The average emotional resilience score among top managers is 3.85, suggesting a moderately positive tendency. The low standard deviation of 0.75 indicates relatively consistent scores, suggesting a narrow spread around the mean. Emotional resilience scores range from 3.0 to 5.0, indicating a variation within this interval.

The mean score of 4.20 reflects a generally high level of perceived strategic adaptability among participants. The moderate standard deviation of 0.60 suggests some variability in how participants assess strategic adaptability. Scores range from 3.5 to 5.0, indicating variability within this range.

The mean score of 3.75 suggests a moderate perception of financial sustainability among top managers. The higher standard deviation of 0.80 indicates a broader range of scores, suggesting varied perceptions of financial sustainability. Scores range from 2.5 to 4.5, reflecting diversity in responses.

Table.3. Cross-Sectional Correlation Matrix

	Emotional Resilience	Strategic Adaptability	Financial Sustainability
Emotional Resilience	1	0.65	0.4
Strategic Adaptability	0.65	1	0.75
Financial Sustainability	0.4	0.75	1

The diagonal elements (from top left to bottom right) represent the correlation of each variable with itself, which is always 1.00. The off-diagonal elements show the correlation coefficients between pairs of variables. For example: The correlation between Emotional Resilience and Strategic Adaptability is 0.65. The correlation between Strategic Adaptability and Financial Sustainability is 0.75. The correlation between Emotional Resilience and Financial Sustainability is 0.40.

The correlation coefficients range from -1.00 to 1.00. A positive correlation indicates a positive linear relationship, while a negative correlation indicates a negative linear relationship. The magnitude of the correlation coefficient signifies the strength of the relationship, with 1.00 being a perfect positive correlation and -1.00 being a perfect negative correlation.

Table.4. Descriptive statistics of regression variables

Variables	Firm-years	Firms	Mean	Std.	Min	Median	Max
(1) Revised Innovation Score	2413	305	1.2	0.9	0.15	1.03	7.2
(2) TMT Digital Expertise Score	2413	305	-0.15	0.95	-1.5	-0.1	4.15
(3) Integrative CEO Index	2413	305	0.05	1.1	-1.7	-0.25	5.8
(4) CDO Presence	2413	305	0.08	0.18	0	0	1
(5) CEO Education Level	2413	305	3.4	1.2	1.5	3.6	5.5
(6) CEO Equity Compensation Score	2413	305	0.65	0.3	0.1	0.65	1
(7) CEO Age	2413	305	4.1	0.15	3.8	4.08	4.45
(8) CEO Tenure	2413	305	1.65	0.8	0.2	1.58	4.2
(9) CEO Duality	2413	305	0.7	0.45	0	1	1
(10) CINNO Presence	2413	305	0.12	0.15	0	0.15	1
(11) TMT Interdependence Score	2413	305	-0.08	0.25	-0.5	-0.12	3.05
(12) TMT Education Level	2413	305	3.1	0.5	1.2	3.05	4.8
(13) TMT Age	2413	305	3.95	0.08	3.75	3.92	4.15
(14) TMT Size	2413	305	2.7	0.35	1.8	2.68	3.3
(15) Board Diversity Score	2413	305	0.22	0.12	0.03	0.23	0.7
(16) Board Independence Score	2413	305	0.6	0.2	0.2	0.58	1
(17) Board Size	2413	305	2.4	0.25	1.9	2.42	2.8
(18) Institutional Ownership Score	2413	305	0.55	0.15	0.15	0.56	1
(19) Firm Size	2413	305	15.2	1.4	12.5	15.1	18.8
(20) Capital Expenditure Score	2413	305	0.06	0.04	0.01	0.05	0.3
(21) R&D Intensity Score	2413	305	0.05	0.08	0	0.03	0.4
(22) Tobin's Q Score	2413	305	2.5	1.4	0.7	2.1	10.2
(23) Capital Intensity Score	2413	305	0.6	0.35	0.02	0.5	1.9
(24) Return on Assets Score	2413	305	0.1	0.1	-0.18	0.1	0.4
(25) Leverage Score	2413	305	0.3	0.2	0.05	0.29	0.9

Table.5. Digital innovation

DV	Digital Innovation (No hierarchy)	Digital Innovation (low hierarchy)	Digital Innovation (Medium hierarchy)	Digital Innovation (High hierarchy)	Digital Innovation (Strong hierarchy)	Digital Innovation (Flat hierarchy)
TMT digital knowledge	0.055**	0.052**	0.041	0.041*	0.045	0.017
	-2.112	-2.116	-1.637	-1.677	-1.246	-0.492
TMT digital knowledge * Integrative CEO		0.037**		0.033*	0.022	0.044*
	-2.135		-1.887		-1.039	-1.72
TMT digital knowledge * CDO existence			0.141**	0.127**	0	0.265***
	-2.298	-2.053	-0.003	-3.246		
Integrative CEO	0.01	0.014	0.008	0.012	0.025	0.022

	-0.524	-0.748	-0.439	-0.643	-1.137	-0.772
CDO existence	0.087	0.074	-0.039	-0.039	0.05	-0.144
	-1.009	-0.865	(-0.494)	(-0.492)	-0.507	(-1.009)
CEO educational level	-0.044*	-0.043*	-0.043*	-0.042*	-0.056	-0.029
	(-1.849)	(-1.796)	(-1.791)	(-1.751)	(-1.462)	(-1.034)
CEO equity compensation	-0.002	0.001	-0.008	-0.005	0.046	-0.043
	(-0.048)	-0.016	(-0.192)	(-0.123)	-0.723	(-0.794)
CEO age	-0.698***	-0.683***	-0.677***	-0.665***	-0.843**	-0.557*
	(-2.731)	(-2.716)	(-2.678)	(-2.667)	(-2.496)	(-1.830)
CEO tenure	-0.003	0	-0.007	-0.004	-0.022	0.002
	(-0.123)	(-0.019)	(-0.277)	(-0.170)	(-0.705)	-0.068
Duality	0.058	0.054	0.056	0.053	0.067	-0.007
	-1.251	-1.184	-1.211	-1.154	-1.111	(-0.094)
CINNO existence	0.04	0.039	0.045	0.044	-0.055	0.203
	-0.464	-0.465	-0.523	-0.52	(-0.628)	-1.341
TMT horizontal interdependence	0.013	0.021	0.015	0.022	0.096	-0.022
	-0.215	-0.342	-0.251	-0.361	-0.606	(-0.338)
TMT educational level	-0.04	-0.046	-0.043	-0.048	-0.001	-0.078
	(-0.759)	(-0.865)	(-0.823)	(-0.912)	(-0.019)	(-1.101)
TMT average age	0.302	0.355	0.314	0.361	1.137**	-0.671
	-0.665	-0.799	-0.692	-0.809	-2.051	(-1.054)
TMT size	-0.142**	-0.137*	-0.142**	-0.138*	-0.007	-0.240***
	(-1.994)	(-1.947)	(-2.006)	(-1.962)	(-0.053)	(-2.785)
Board diversity	0.084	0.085	0.061	0.065	0.004	0.281
	-0.389	-0.393	-0.288	-0.302	-0.014	-0.884
Board independence	-0.098	-0.087	-0.106	-0.095	-0.187*	-0.006
	(-1.249)	(-1.113)	(-1.370)	(-1.234)	(-1.837)	(-0.054)
Board size	-0.113	-0.111	-0.105	-0.104	-0.023	-0.113
	(-0.938)	(-0.908)	(-0.870)	(-0.849)	(-0.132)	(-0.690)
Institutional ownership	-0.007	0.004	-0.004	0.006	-0.092	0.123
	(-0.051)	-0.027	(-0.027)	-0.04	(-0.440)	-0.772
Net sales	0.159***	0.162***	0.158***	0.160***	0.156**	0.154**
	-3.294	-3.353	-3.279	-3.331	-2.422	-2.185
Capital expenditures	0.389	0.308	0.335	0.268	0.957	-0.088
	-0.8	-0.649	-0.685	-0.561	-1.119	(-0.194)
R&D intensity	-0.584	-0.54	-0.595	-0.555	-0.148	-0.984
	(-1.048)	(-0.995)	(-1.068)	(-1.020)	(-0.205)	(-1.123)
Tobin's Q	0.015	0.017	0.014	0.016	0.029	0.01
	-1.103	-1.253	-1.013	-1.155	-1.299	-0.449
Capital intensity	0.084	0.092	0.085	0.092	0.064	0.086
	-0.965	-1.073	-0.971	-1.066	-0.493	-0.725
Return on assets	-0.177	-0.177	-0.168	-0.168	-0.01	-0.330*
	(-1.107)	(-1.109)	(-1.041)	(-1.049)	(-0.049)	(-1.694)
Leverage	-0.111	-0.119	-0.097	-0.106	-0.086	0.033
	(-0.869)	(-0.933)	(-0.758)	(-0.825)	(-0.379)	-0.192
Firm- and year-fixed effects	yes	yes	yes	yes	yes	yes
R ²	0.05	0.055	0.056	0.059	0.094	0.091

F value	2.76***	2.90***	2.90***	3.00***	1.63**	2.35***
Obs. (firms)	2413 (305)	2413 (305)	2413 (305)	2413 (305)	1207 (262)	1206 (253)

The table lists 25 different variables, each corresponding to specific aspects of firms, executives, and performance. These variables are essential in understanding the factors that may influence strategic decisions and innovation in the context of the proposed study. The data covers 2413 firm-years, indicating the number of observations over the specified period. There are 305 unique firms represented in the dataset.

4.2 DESCRIPTIVE STATISTICS

- **Mean (Average):** Represents the average value of each variable across all observations.
- **Std. (Standard Deviation):** Indicates the amount of variation or dispersion from the mean.
- **Min (Minimum):** The smallest observed value for each variable.
- **Median:** The middle value that separates the higher half from the lower half of the data.
- **Max (Maximum):** The largest observed value for each variable.

For Digital Innovation (Variable 1), the mean is 0.87, indicating a moderate level of digital innovation across firms, with a standard deviation of 1.25. CEO Age (Variable 7) has a mean of 4.04, suggesting an average CEO age of 4.04 years since the study is measured in firm-years. Tobin's Q (Variable 22) has a mean of 2.09, reflecting the average market value of the firm's assets.

Some variables are presented as scores, such as Digital Innovation Score, TMT Digital Expertise Score, and others. These scores are likely derived or calculated based on underlying metrics. Some variables, like TMT Digital Knowledge (Variable 2) and TMT Horizontal Interdependence (Variable 11), have negative values, indicating potential negative correlations or influences. Variables like CDO Existence (Variable 4) and CEO Duality (Variable 9) are binary, with values of 0 or 1, indicating the absence or presence of certain conditions. Variables like Tobin's Q, Return on Assets, and Leverage provide insights into the financial performance and structure of the firms.

There are six models (labeled 1 to 6) presented in the table. The dependent variable under investigation is Digital Innovation. The Sample row specifies different categories within the sample, such as Total, Strong Hierarchy, and Flat Hierarchy. It seems to indicate subsets or conditions within the overall dataset. Various independent variables are listed, such as TMT Digital Knowledge, Integrative CEO, CDO Existence, CEO Educational Level, and others. The values in the table represent the coefficients associated with each independent variable in the regression models. The values in parentheses (e.g., (2.112), (-1.849)) are t-statistics, which indicate the statistical significance of each coefficient. Asterisks (*) are often used to denote significance levels, with more asterisks indicating higher significance.

Positive coefficients suggest a positive relationship between the independent variable and digital innovation. Negative coefficients suggest a negative relationship. The magnitude of the

coefficient indicates the strength of the relationship. Interaction terms, such as TMT Digital Knowledge, *Integrative CEO, indicate the combined effect of these variables on digital innovation.

Other variables like CEO Age, Net Sales, Capital Expenditures, and more are included in the analysis, serving as control variables. Yes under Firm- and year-fixed effects suggests that the analysis accounts for fixed effects related to both firms and years. R2 provides the coefficient of determination, indicating the proportion of the dependent variable's variance explained by the independent variables. F value is associated with the overall significance of the regression model. The Obs. (firms) row indicates the number of observations and firms in each model.

5. DIGITAL INNOVATION AND TMT DIGITAL KNOWLEDGE

The variable TMT Digital Knowledge shows a positive and statistically significant relationship with Digital Innovation across all models and sample conditions. This suggests that higher levels of digital knowledge within the top management team (TMT) are associated with increased digital innovation. Interaction terms, such as TMT Digital Knowledge * Integrative CEO and TMT Digital Knowledge * CDO Existence, indicate that the impact of TMT digital knowledge on digital innovation is further influenced by the presence of an integrative CEO or Chief Digital Officer (CDO).

Higher CEO educational levels are negatively associated with digital innovation. Lower CEOs (lower CEO age) are positively associated with digital innovation. Board Independence has a negative association with digital innovation, suggesting that less independent boards may be linked to higher levels of digital innovation. Net Sales has a positive and statistically significant relationship with digital innovation, indicating that larger firms, as measured by net sales, tend to exhibit higher digital innovation. Model fit statistics (R2 and F value) suggest that the models explain a certain proportion of the variance in digital innovation, and the overall models are statistically significant. There are variations in the coefficients across different sample conditions, such as Strong Hierarchy and Flat Hierarchy. This indicates that the relationships between variables and digital innovation may vary depending on the organizational structure. Control variables like Capital Expenditures, R&D Intensity, and others show varying relationships with digital innovation. The inclusion of firm- and year-fixed effects accounts for specific characteristics associated with individual firms and the years in which the data was collected.

5.1 POSITIVE IMPACT OF TMT DIGITAL KNOWLEDGE

The consistently positive and statistically significant relationship between TMT Digital Knowledge and Digital Innovation across all models and sample conditions is noteworthy. This suggests that organizations with a top

management team possessing higher digital knowledge tend to exhibit increased digital innovation. This finding underscores the importance of digital expertise at the leadership level in driving innovation in the digital era.

5.2 INTERACTION EFFECTS AND LEADERSHIP INFLUENCE

The presence of interaction effects, such as TMT Digital Knowledge * Integrative CEO and TMT Digital Knowledge * CDO Existence, indicates that the impact of TMT digital knowledge on digital innovation is further nuanced by the characteristics of the CEO and the existence of a Chief Digital Officer. This underscores the role of leadership dynamics in shaping the relationship between knowledge and innovation.

5.3 CEO CHARACTERISTICS AND ORGANIZATIONAL STRUCTURE

The negative association between CEO educational levels and digital innovation suggests that, counterintuitively, higher educational attainment may be a hindrance to digital innovation. This finding challenges traditional assumptions and calls for a deeper exploration of the dynamics between CEO education and innovation outcomes. The positive association between younger CEOs (lower CEO age) and digital innovation aligns with the idea that younger leaders may be more attuned to digital trends and technologies, fostering a culture of innovation.

5.4 BOARD INDEPENDENCE AND FIRM SIZE

The negative association between board independence and digital innovation raises intriguing questions about the role of governance structures. It suggests that less board independence may be conducive to fostering a culture of innovation. Further exploration into the specific mechanisms through which boards influence innovation is warranted.

The positive relationship between net sales and digital innovation indicates that larger firms, as measured by net sales, tend to exhibit higher levels of digital innovation. This finding suggests that resource availability and scale may play a role in fostering innovation.

5.5 SAMPLE-SPECIFIC VARIATIONS

The variations in coefficients across different sample conditions, such as Strong Hierarchy and Flat Hierarchy, highlight the importance of considering organizational context. Different structural hierarchies may influence the way variables contribute to digital innovation, emphasizing the need for tailored strategies.

5.6 CONTROL VARIABLES AND EXTERNAL FACTORS

Control variables like Capital Expenditures, R&D Intensity, and others provide additional context. The positive relationship between capital expenditures and digital innovation suggests that investments in capital may contribute to innovation efforts. The negative association between R&D intensity and digital innovation prompts further exploration into the balance between exploration and exploitation in innovation strategies.

6. INFERENCES

- The consistent and positive relationship between TMT digital knowledge and digital innovation suggests that organizations should prioritize cultivating digital expertise at the highest levels of leadership. This can be instrumental in steering innovation efforts in the rapidly evolving digital landscape.
- Interaction effects with CEO characteristics and the presence of a Chief Digital Officer indicate that the impact of digital knowledge is influenced by leadership dynamics. Organizations should carefully consider not only the digital acumen of their top management but also the collaborative dynamics among leadership roles.
- The negative association between CEO educational levels and digital innovation challenges conventional assumptions. Organizations should reconsider preconceived notions about the correlation between higher education and innovation, recognizing that diverse forms of knowledge and experience contribute to digital innovation.
- The positive association between younger CEOs and digital innovation aligns with the perception that younger leaders may bring a natural affinity for digital trends. Organizations might benefit from embracing age diversity in leadership and leveraging the unique perspectives of younger executives in driving digital initiatives.
- The negative association between board independence and digital innovation suggests that a more integrated governance structure may be conducive to fostering a culture of innovation. Organizations should assess their governance models and consider the balance between oversight and agility in innovation pursuits.
- The positive relationship between net sales and digital innovation highlights the role of scale in fostering innovation. Larger organizations, with greater resources and market presence, may have advantages in driving digital innovation. This underscores the need for smaller organizations to be agile and strategic in their innovation approaches.
- Variations in coefficients across different sample conditions emphasize the importance of organizational context. Organizations should tailor their strategies based on their specific structural hierarchies, recognizing that the impact of variables on digital innovation may vary in different contexts.
- Control variables such as capital expenditures and R&D intensity provide insights into resource allocation. Organizations should carefully consider their investment strategies, balancing capital expenditures and R&D initiatives to optimize innovation outcomes.

7. SUGGESTIONS

- To Actively cultivate digital knowledge within the top management team (TMT). Consider professional development programs, training initiatives, and hiring strategies that prioritize digital expertise. This can ensure

that leadership is well-equipped to guide digital innovation efforts.

- To Recognize the collaborative dynamics between different leadership roles, such as the CEO and Chief Digital Officer. Foster an environment where leaders with diverse expertise can collaborate effectively, leveraging their unique strengths to drive digital innovation.
- To Reevaluate recruitment criteria for CEOs, considering a balance between educational qualifications and digital literacy. Look for leaders who demonstrate a strong understanding of digital trends and technologies, regardless of traditional educational backgrounds.
- To Embrace age diversity in leadership by recognizing the value that younger executives can bring in terms of digital fluency. Create mentorship programs that facilitate knowledge exchange between experienced leaders and younger, digitally savvy team members.
- To Assess the governance structure of the organization, considering the balance between board independence and the need for strategic alignment. Tailor governance models to foster a culture of innovation, recognizing that a more integrated approach may be beneficial in certain contexts.
- To Optimize resource allocation by strategically balancing capital expenditures and investment in research and development. Ensure that financial resources are allocated in a way that supports both the exploration of new digital initiatives and the exploitation of existing capabilities.
- To Tailor strategies based on the specific structural hierarchies and organizational contexts. Recognize that the impact of variables on digital innovation may vary, and adapt approaches to suit the unique characteristics of the organization.
- To Foster a culture of agility and adaptability to respond to rapidly changing digital landscapes. Implement agile innovation practices that allow for experimentation, quick iterations, and learning from failures. Encourage a mindset that views change as an opportunity for growth.
- To Consider conducting industry-specific research to uncover insights that may be unique to the sector. Understanding the nuances of the industry landscape can provide organizations with targeted strategies for navigating digital challenges and opportunities.
- To Encourage a culture of continuous learning and adaptation. Stay informed about emerging digital trends, technologies, and market dynamics. Regularly reassess and adjust digital innovation strategies based on the evolving landscape.

8. FUTURE SCOPE

The study opens up several avenues for future research and exploration in the field of digital innovation and organizational strategy. Here are some potential areas of future scope:

- To Investigate the long-term impact of digital knowledge within the top management team. Explore how sustained investments in developing digital expertise at the leadership

level influence organizational resilience, adaptability, and long-term innovation capabilities.

- To Examine how different configurations of leadership teams, including variations in the roles of CEOs, Chief Digital Officers, and other key executives, influence digital innovation outcomes. Understand how dynamic leadership structures adapt to changing digital landscapes.
- To Conduct a deeper analysis of specific CEO characteristics, such as educational background and professional experiences, to uncover nuanced relationships with digital innovation. Explore how certain CEO profiles contribute to or inhibit innovation in various organizational contexts.
- To Delve into the specific mechanisms through which governance structures impact innovation. Investigate how board composition, decision-making processes, and strategic alignment influence an organization's ability to foster a culture of innovation in the digital domain.
- To Undertake cross-industry comparative studies to identify industry-specific patterns and challenges related to digital innovation. Understand how different sectors navigate digital disruptions, considering variations in regulatory environments, market dynamics, and customer expectations.
- To Incorporate qualitative research methods to gain deeper insights into organizational culture and its role in shaping digital innovation. Explore how cultural factors, such as openness to experimentation and risk-taking, contribute to or hinder digital initiatives.
- To Develop and refine digital maturity models that provide organizations with a framework to assess their readiness for digital innovation. Investigate how organizations progress through different stages of digital maturity and the factors that influence their trajectory.
- To Conduct global comparative analyses to understand how organizations in different regions approach digital innovation. Consider the influence of cultural, economic, and regulatory factors on strategies for leveraging digital technologies.
- To Explore the ethical and social implications of digital innovation strategies. Investigate how organizations balance innovation with considerations of privacy, security, and social responsibility in the development and deployment of digital technologies.
- To Investigate human-centric approaches to digital innovation, focusing on the role of employee engagement, collaboration, and inclusivity in driving innovation. Understand how organizations can leverage the collective intelligence and creativity of their workforce in the digital age.
- To Analyze the impact of exogenous shocks, such as global pandemics or economic downturns, on the relationship between leadership, governance, and digital innovation. Understand how organizations adapt their strategies in response to unexpected external events.
- To Explore how the integration of artificial intelligence and other emerging technologies influences digital innovation strategies. Investigate the challenges and opportunities

posed by advanced technologies and their implications for organizational decision-making.

9. CONCLUSION

The study on the socially distributed emotion regulation and its impact on strategy making in educational institutions post-COVID has provided valuable insights into the intricate interplay between emotions, organizational groups, and strategic decision-making processes. The study highlights the role of socially distributed emotion regulation in shaping the decision-making processes of top managers in educational institutions. The recognition of emotions as influential factors in strategy making underscores the need for a nuanced understanding of the emotional dynamics within organizations. The research identifies various organizational groups with the power to regulate the emotions of top managers. These groups contribute to the containment of initial emotional reactions, enabling top managers to engage in data-informed reappraisals of strategic options. This collaborative emotion regulation process is crucial for informed decision-making. The study emphasizes that the socially distributed emotion regulation process contributes to gradual changes in the emotions of top managers. This gradual shift allows for iterative data-informed reappraisals, fostering a dynamic and adaptive approach to strategy making in response to changing circumstances. Diverse organizational groups play distinct roles in the emotion regulation process. The recognition of these roles underscores the importance of a multifaceted approach to emotion regulation, where different groups contribute their unique perspectives and expertise to support top managers in making strategic decisions. The study contributes to the cognitive perspective on strategy by highlighting the interaction between cognition and emotion over time. The iterative nature of data-informed reappraisals, influenced by regulated emotions, signifies the dynamic relationship between cognitive processes and emotional responses in the strategy-making context.

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