Psychology Research and Behavior Management

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ORIGINAL RESEARCH

The Double-Edged Sword Effect of Leaders' Fear of Missing Out on Leaders' Creativity: An Experience Sampling Method Study

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Purpose: Fear of Missing out (FoMO) is a widely observed phenomenon in the workplace. Previous research has primarily focused on employees' FoMO, with limited exploration of leaders' FoMO and its impact on their creativity. This study aims to investigate how leaders' FoMO affects their creativity, based on the transactional stress theory.

Patients and Methods: Using an experience sampling method, we collected 836 observations from 102 leaders across various industries in China for two consecutive weeks (10 working days). Subsequently, hierarchical regression analysis and structural equation modeling were employed to test the hypotheses.

Results: This study suggests that both challenge stress and hindrance stress mediate the relationship between leaders' FoMO and their creativity. Role breadth self-efficacy moderates the relationship between leaders' FoMO and challenge stress and hindrance stress, and moderates the positive and negative mediating effects of challenge stress and hindrance stress in the relationship between leaders' FoMO and their creativity.

Conclusion: Research has shown that leaders' FoMO can either enhance creative performance by increasing challenge stress or inhibit it by increasing hindrance stress. Role breadth self-efficacy significantly amplifies the positive relationship between leaders' FoMO and challenge stress, while moderating the negative effect of leaders' FoMO on hindrance stress.

Innovations: Firstly, this study expands workplace FoMO research by illustrating the double-edged sword effect of leaders' FoMO on their creativity. Secondly, this study contributes to the academic community's comprehension of the underlying mechanisms linking leaders' FoMO and its outcomes by demonstrating the mediating role of challenge stress and hindrance stress. Thirdly, the study shows the boundary conditions for the effects of leaders' FoMO by validating the moderating role of their role breadth self-efficacy.

Keywords: workplace fear of missing out, challenge stress, hindrance stress, leader's creativity, role breadth self-efficacy

Introduction

With the constant evolution and widespread use of the internet and mobile social media, people have access to a wealth of information. However, practical limitations and time constraints may cause individuals to be concerned about missing out on social connections with friends and family, as well as valuable experiential information that others may be accessing and sharing. This phenomenon is known as the Fear of Missing Out (FoMO) in academia.[1] In recent years, with the continuous deepening and refinement of research in the field of FoMO, scholars have attempted to extend the phenomenon of social media FoMO to other situations for research,[2] and workplace FoMO is one of them. Workplace Fear of Missing Out (Workplace FoMO) refers to an individual's apprehension that one might miss valuable career opportunities when away or disconnected from work, which is mainly marked by informational and relational exclusion.[3] Currently, the academic community is increasingly aware of the prevalence and severity of workplace FoMO and has conducted theoretical and empirical research on the subject. However, previous studies have primarily focused on exploring the causes of

Received: 12 November 2023
Accepted: 12 January 2024
Published: 24 January 2024

workplace FoMO and its negative impact on employees' work performance,[4] productivity,[5] work engagement,[6] and creativity[7] through theories related to basic psychological needs and resources. The current literature on leaders' FoMO is limited, and there is no research has explored the relationship between leaders' FoMO and their creativity.

Leaders' creativity refers to the leader to generate novel and valuable ideas for products, services, and work processes while performing work-related tasks.[8] According to a global CEO research report by IBM, creativity is the most vital quality for leaders in the current era of Volatility, Uncertainty, Complexity, and Ambiguity (VUCA). Creative leaders are not only proactive in abandoning outdated approaches, proposing timely, and useful ideas, and navigating organizational change,[9] but they also take the lead in identifying opportunities and challenges faced by the enterprise, thereby converting crises into opportunities and leading the organization toward prosperity.[10] However, creativity is a dynamic process, and individuals are not always at their most creative.[11] Meanwhile, the complexity and uncertainty of the external environment can easily induce leaders' FoMO. As managers of organizational resources, leaders' FoMO will fluctuate constantly due to different work tasks, goals, and their confidence in avoiding missing out and a sense of meaning. In light of this, the study employed a dynamic research design and the experience sampling method to investigate whether leaders who experience FoMO at work tend to exhibit conservative work practices or show more creativity.

Transactional stress theory suggests that stressors are internal or environmental stimuli that trigger stress responses in individuals. Depending on the self-relevance of these stressors and their coping abilities, individuals will make challenge and hindrance cognitive appraisals, which can lead to challenge stress and hindrance stress, and subsequently adopt distinct coping behavioral strategies.[12] Previous research has investigated FoMO as a stressor in the context of social media,[13,14] referring to the stimuli generated from individuals' persistent desire to stay connected with others and frequent use of social media. Although workplace FoMO does not necessarily imply that individuals are missing out on beneficial work information and interpersonal relationships, the desire of individuals to achieve work goals and career progression, and their concern about possible missed opportunities, can result in as much subjective stress as the actual missing out. Therefore, it is justifiable to posit that workplace FoMO constitutes a significant stressor encountered by leaders. According to the transactional stress theory, this study suggests that leaders do not directly respond to workplace FoMO. Instead, they are assessed to generate challenge stress and hindrance stress, which subsequently promote creativity through challenge stress and inhibit creativity through hindrance stress. Furthermore, Individuals' cognitive appraisal of stressors is influenced by their characteristics,[12] such as role breadth self-efficacy.[15] Individuals with high levels of role breadth self-efficacy are more inclined to perceive stressors as challenge stress rather than hindrance stress, resulting in increased creativity. Therefore, this study aims to investigate how leaders' FoMO affects their creativity, based on the transactional stress theory, and to explore the moderating effect of role breadth self-efficacy. The research model for this study is illustrated in Figure 1.

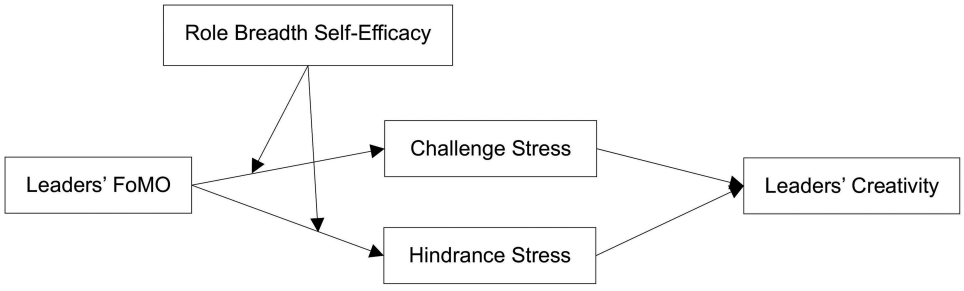

Figure 1 Research model.

Theory and Hypotheses Development

Transactional Stress Theory

According to the transactional stress theory,[12] when individuals encounter stressors, they engage in primary cognitive appraisal (interest) and secondary cognitive appraisal (capability) of stressors, based on factors such as self-cognition, experience, and environment. The sequence of these two cognitive appraisals is not fixed and they can occur simultaneously. After cognitive appraisal, stress can be classified into challenge stress and hindrance stress. Personal characteristics may influence the interplay between stressors and individual responses.[12] This study employs transactional stress theory as the overarching framework, as it explains why individuals exhibit varying cognitive and behavioral responses to the same stressor. That is, if leaders believe that they can reduce or eliminate the risk of losing valuable work-related information and interpersonal relationships when they leave or disengage from work, they will experience challenging stress and proactively exert creativity. Conversely, they will experience hindrance stress and curtail creativity. Influenced by the characteristics of role breadth self-efficacy, leaders are inclined to perceive FoMO as a challenge, which will result in a challenge stress perception for leaders and stimulate them to develop positive coping strategies. This study's overarching framework effectively explains the bidirectional chain of influence between leaders' FoMO on their creativity and the moderating effect of individual characteristics (role breadth self-efficacy) on this influence effect.

Leaders' FoMO

Based on the research of Budnick et al,[3] this study defines leaders' FoMO as the apprehension that valuable work information and interpersonal relationships might be missed when away or disconnected from work. This study argues that leaders' FoMO deserves attention in management research and practice, primarily for the following reasons: (1) As organizational managers, leaders' spatial independence and the hierarchical nature of management can lead them to worry about being detached from their subordinates and teams, potentially missing out on crucial work information and relationships, and negatively impact the organizational atmosphere and management decisions. (2) Currently, the internal and external business environment is complex and uncertain. If leaders fail to grasp crucial work information, it may impede the smooth progress of tasks, while neglecting interpersonal relationships relevant to organizational development can hinder business expansion, resulting in significant losses for the organization. The severe consequences of missing out can easily stimulate leaders' FoMO. (3) Influenced by traditional Chinese cultural values of "sense of worry" and the notion of "safety but not forgetting danger" in management practice,[16] leaders may experience psychological pressure due to FoMO, even when organizations are in good condition. This pressure can negatively affect their physical and mental health, as well as their work behavior. Previous studies on workplace FoMO have mainly focused on employees, with little investigation into leaders' FoMO and its effects on leaders themselves, as well as its underlying mechanism. However, it is important to examine the impact of workplace FoMO on leaders, as it can have significant consequences for their behavioral performance.

The Mediating Role of Challenge Stress

Challenge stress can lead individuals to believe that they can cope with the pressure induced by the stressor and that investing time and energy is beneficial for achieving work goals and personal growth.[17] According to the transactional stress theory, this study suggests that if leaders believe that the key work-related information and interpersonal losses associated with being away or being separated from work as controllable, and the time and energy invested to contribute to the achievement of work goal and future development, they will assess workplace FoMO as a challenging stressor and motivate individuals to adopt problem-solving coping strategies.[18] In this process, on the one hand, challenge stress may induce work energy and enthusiasm,[18] inspiring leaders to view beneficial work information and interpersonal losses in the workplace as avoidable or reducible. This can stimulate intrinsic creative behavior. For example, leaders can take the initiative to socialize, actively communicate to acquire work-related information, change old methods of working in time, and propose innovative ideas or approaches. On the other hand, the potential advantages of challenge stress, such as business expansion and positive social relations, may further encourage leaders to work diligently and increase their creative ideas.

In addition, the strong sense of accomplishment derived from overcoming stress[19] can encourage individuals to take initiative and tackle problems, leading to more creative outcomes. Consequently, leaders in the workplace may be more inclined to embrace the challenge of stress and adopt proactive problem-focused responses.[17,20] For instance, proposing creative new methods of working, redefining problems, suggesting alternative solutions, and prioritizing options based on input-output ratios.[12]

Based on the above analysis, this article proposes the following hypotheses:

Hypothesis 1: Challenge stress plays a mediating role between leaders' FoMO and leaders' creativity.

The Mediating Role of Hindrance Stress

Hindrance stress is the perception that the stressors are difficult to overcome and impede work goals and career development.[17] Based on the transactional stress theory, this study concludes that if a leader perceives the potential loss of key work information and interpersonal relationships when leaving or disengaging from work as having severe consequences, such as the loss of important customers, work interruption, and performance decline, and cannot fully address this issue, anticipating that the investment of time and energy will yield no benefits, they will conduct a hindrance appraisal of workplace FoMO and regard it as a "heavy burden", generating hindrance stress.[19]

A large number of studies have shown that hindrance stress can threaten personal growth and goal achievement, reduce job satisfaction and organizational commitment,[21] and result in disengagement from work,[22] counterproductive behavior,[21] and compromised psychological security.[23] Therefore, when faced with hindrance stress, individuals are more inclined to maintain the status quo, conform to work norms, resist work redesign,[24] and avoid proposing innovative ideas that go beyond conventional work practices. This study suggests that leaders who perceive the possibility of missing out in the workplace as unavoidable and are unable to cope with it may view workplace FoMO as a hindrance. Consequently, they may consider it useless to invest resources and adopt a negative attitude towards work, avoiding or reducing the proposal of creative work ideas.

Based on the above analysis, this article proposes the following hypotheses:

Hypothesis 2: Hindrance stress plays a mediating role between leaders' FoMO and leaders' creativity.

The Moderating Effect of Role Breadth Self-Efficacy

Transactional stress theory points out that individuals assess the nature and degree of stressors in combination with their characteristics.[12] Self-efficacy is a stable individual characteristic that refers to the belief in one's ability to perform a task.[25] Research suggests that individuals with high self-efficacy are more likely to make challenging appraisals when faced with stressors.[26] This is primarily because individuals with high self-efficacy are not afraid of external demands, but rather possess full confidence in their ability to develop and overcome challenges.[26] Role breadth self-efficacy, as proposed by Parker, is an individual's perception of their capacity to complete a range of broader and more active work tasks that surpass prescribed technical requirements.[15] Unlike general self-efficacy, role breadth self-efficacy emphasizes comprehensive role competence rather than focusing on specific abilities. This is conducive to breaking established role constraints and implementing interpersonal and integrated tasks.[15]

This study suggests that role breadth self-efficacy is perceived as a signal of leaders' competence in handling potential "missing out", which impacts their cognitive appraisal of workplace FoMO. Leaders with higher role breadth self-efficacy are more likely to exhibit positive motivation and behaviors, such as proactive problem-solving and taking responsibility.[27] Additionally, they possess stronger role competence and confidence in managing situations; and believe that such behaviors lead to positive outcomes.[28] At this point, leaders may feel more confident in handling work related to interpersonal relations and integration tasks, which can increase the challenging stress experience for leaders experiencing workplace FoMO. Conversely, those with lower role breadth self-efficacy are prone to negative risk avoidance emotions and coping styles, resulting in hindrance stress.

Based on the above analysis, this article proposes the following hypotheses:

Hypothesis 3: Role breadth self-efficacy plays a positive moderating role between leaders' FoMO and challenge stress.

Hypothesis 4: Role breadth self-efficacy plays a negative moderating role between leaders' FoMO and hindrance stress.

Mediating Moderation

Leaders' FoMO can promote their creativity through challenge stress, but can inhibit it through hindrance stress. The effects of both positive and negative paths are influenced by role breadth self-efficacy. Role breadth self-efficacy enhances leaders' creativity by moderating the impact of leaders' FoMO on challenge stress, while simultaneously impeding creativity by moderating the effects of leaders' FoMO on hindrance stress.

Based on the above analysis, this article proposes the following hypotheses:

Hypothesis 5: Role breadth self-efficacy positively moderates the mediating role of challenge stress between leaders' FoMO and leaders' creativity.

Hypothesis 6: Role breadth self-efficacy negatively moderates the mediating role of hindrance stress between leaders' FoMO and leaders' creativity.

Materials and Methods

Sample and Data Collection

This study employs the experience sampling method to capture the dynamic impact of leaders' daily FoMO on their daily creativity. The reason for this is that leaders' FoMO may vary daily according to their work situation, which can affect their stress assessment and creative behavior. The researchers contacted the head of MBA teaching in the management school of a university in western China and the head of the alumni association of a university in central China; introduced the whole process of the survey, and promised that all data would only be used for the analysis of this study to them by phone or email. Ultimately, through their introductions, a total of 112 part-time MBA students (mainly CEOs or managers at different levels) and executives in the alumni association agreed to participate in the study. The participants cover industries such as manufacturing, services, finance, and the Internet.

By the established research procedures employing the experience sampling method,[29,30] this study was conducted in two stages: fundamental investigation and formal investigation. In the fundamental investigation stage, 108 managers completed a personal trait questionnaire which included data on gender, age, education, position level, length of service, and role breadth self-efficacy. Following the preliminary survey, a formal investigation was conducted on the 108 managers who participated in the first stage. The investigation lasted two weeks (10 working days). Before the investigation, the research team consulted with 2 doctoral students, 4 master's students, and 3 organizational behavior researchers to pre-complete the survey questionnaire and provide feedback on language, logic, issuance time, and completion duration. Based on the feedback, the questionnaire content was refined and improved, and the integration of management practices was employed to determine the distribution method and completion time. Participants were invited to assess the leaders' FoMO at 11:00 am. This was followed by assessments of their challenge stress, hindrance stress, and creativity at 5:00 PM. Each questionnaire remained open for 2 hours. To maintain data authenticity and participant confidentiality, all questionnaires were administered anonymously. Participants were required to provide only the last four digits of their phone number as matching information. Each completed questionnaire was rewarded with a designated cash amount.

Through questionnaire matching and data processing, we eliminated samples that did not answer seriously (polygraph questions were not accurately selected), did not answer at a specific point in time, regular responses, and answered on behalf of an assistant. Among these exclusions, three subjects provided fewer than three consecutive days of answers, two subjects consecutively chose the same variable for 10 days, one subject answered on behalf of an assistant, and 48 subjects were invalidated in part due to the aforementioned reasons. Ultimately, 836 valid data points were extracted from 102 subjects. Descriptive statistics reveal that 58.8% of the sample population is male, while females account for 41.20%. Furthermore, 26.50% of respondents are aged 30 or below; 54.90% fall into the age range of 31–45 years; and 18.6% are aged over 46. In terms of educational attainment, approximately 12.70% of individuals have a college degree or lower, 37.30% possess

a bachelor's degree, and 50% have a master's degree or higher qualification level. Regarding job level, 61.80% of managers are at the basic level, 24.50% at the middle level, and 13.70% at the top level. Additionally, work experience distribution among participants shows that 26.50% have worked for five years or less, 7.80% have accumulated six to ten years' worth of experience, and 65.70% have been employed for more than eleven years.

Measures

The variables employed in this study were extracted from the mature scale published in high-level English journals. Following the back-translation procedure, all English questionnaire items were translated into Chinese. We adjusted the items to fit the investigative context, and all measures used a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).

Leaders' FoMO: We used the 10-item scale developed by Budnick et al[3] to assess leaders' FoMO. The sample item includes "Today, I am worried that I will miss an opportunity to establish an important business connection". The coefficient α is 0.944.

Challenge stress and hindrance stress: We used the 11-item scale developed by Cavanaugh et al[17] to assess challenge stress and hindrance stress. The sample item includes "Today, the time I spend at work causes me a lot of stress" and "Today, I cannot clearly understand the work content of my position". The coefficients α are 0.887 and 0.865.

Leaders' creativity: We used the 4-item scale developed by Farmer et al[31] to assess leaders' creativity. The sample item includes "Today, I have proposed new ideas or new methods to solve problems". The coefficient α is 0.836.

Role breadth self-efficacy: We used the 7-item scale developed by Parke[15] to assess role breadth self-efficacy. The sample item includes "I can usually design new workflow in my work field". The coefficient α is 0.920.

Control variables: We included gender, age, education, position level, and length of service as control variables.

Analysis and Results

Preliminary Analysis

Given the nested structure of the data, with multiple days of data recorded for each individual, this study employed Mplus8.3 to conduct a multilevel path analysis to test the hypothesis proposed in the paper. Drawing on previous research,[32] we treated the daily measured intra-individual variables (leader's FoMO, challenge stress, hindrance stress, and leader's creativity) as the within level (Level 1). We set the interpersonal cross-level moderating variable (role breadth self-efficacy) as the between-level (level 2). Subsequently, we constructed a random slope model with role breadth self-efficacy as the between-level predictor, affecting the relationship between leaders' daily FoMO and challenge stress and hindrance stress. Before hypothesis testing, we computed ICC (1) and ICC (2) for each variable to examine intergroup correlation. The results indicate leader's FoMO ICC (1) =0.54, ICC (2) =0.91; challenge stress ICC (1) =0.57, ICC (2) =0.92; hindrance stress ICC (1) =0.51, ICC (2) =0.89; leader's creativity ICC (1) =0.52, ICC (2) =0.90. The interclass correlation coefficient (ICC) values for the aforementioned variables align with the specified criteria, with ICC (1) >0.059 and ICC (2) >0.70. Furthermore, the 1-ICC (1) value suggests a certain degree of within-group variation. Therefore, the experience sampling method and cross-level analysis were employed in this study, which is scientifically and reasonably sound.

Common Method Bias Analysis and Confirmatory Factor Analyses

This research only evaluated variables from the perspective of the subjects' managers, which may have resulted in common method bias. To examine the presence of common method bias, the study implemented the Harman one-way test. The results that the unrotated maximum factor variance accounted for 27.920% of the total variance, which falls short of 40%.[33] This study suggests that there is no significant common method bias among the variables. To enhance the research's rigor, a test for a "single method factor" was introduced,[34] which involves incorporating a potential common factor to load all items within the five-factor model, resulting in a six-factor model. The results (see Table 1) showed that the hypothetical six-factor model compared to the five-factor model, which the increase of CFI and TLI did not exceed 0.1, and the reduction in RMSEA, $SRMR_{Within}$, and $SRMR_{Between}$ did not exceed 0.05, which further indicates that there is no severe common method bias in this study.

Table 1 Confirmatory Factor Analysis Results

Models	$\chi 2$	*df*	$\chi 2/df$	CFI	TLI	RMSEA	$SRMR_{Within}$	$SRMR_{Between}$
Six-factor model	944.282	672	1.405	0.971	0.966	0.022	0.035	0.041
Five-factor mode (best fitting model)	1003.710	723	1.388	0.970	0.967	0.022	0.037	0.045
Four-factor mode	2258.343	730	3.094	0.837	0.823	0.050	0.150	0.353
Three-factor mode	2737.966	733	3.735	0.787	0.768	0.057	0.157	0.401
Two-factor mode	3384.785	737	4.593	0.718	0.696	0.066	0.189	0.471
One-factor mode	4277.688	739	5.788	0.624	0.594	0.076	0.183	0.364

Notes: One-factor mode: leader's FoMO + challenge stress + hindrance stress + leader's creativity + role breadth self-efficacy; Two-factor mode: leader's FoMO + leader's creativity + role breadth self-efficacy, challenge stress + hindrance stress; Three-factor mode: leader's FoMO + role breadth self-efficacy, challenge stress + hindrance stress, leader's creativity; Four-factor mode: leader's FoMO, challenge stress + hindrance stress, leader's creativity, role breadth self-efficacy; Five-factor mode: leader's FoMO, challenge stress, hindrance stress, leader's creativity, role breadth self-efficacy; Six-factor model with common method factors.

Descriptive Statistics and Correlation

Table 2 presents the mean values, standard deviations, and correlation coefficients of within and between variables. The findings reveal a positive association between leader's FoMO and challenge stress ($r=0.420$, $p<0.01$), hindrance stress ($r=0.379$, $p<0.01$), and leader's creativity ($r=0.366$, $p<0.01$). A significant positive correlation between leader's challenge stress and creativity ($r=0.555$, $p<0.01$); while a significant negative correlation between leader's hindrance stress and creativity ($r=-0.250$, $p<0.01$). The results also indicate a significant positive correlation between leader's role breadth self-efficacy and challenge stress ($r=0.254$, $p<0.01$), and it was negatively associated with hindrance stress ($r=-0.271$, $p<0.01$). The correlation analysis results indicate the hypothesized relationship between the variables, providing a basis for further data analysis.

Table 2 Descriptive Statistics and Correlation

Variables	1	2	3	4	5	6	7	8	9	10
1.LF	1	0.481**	0.419**	0.407**	0.007	−0.114**	0.106**	−0.144**	0.082*	0.074*
2.CS	0.420**	1	−0.008	0.681**	0.254**	−0.061	−0.045	−0.044	−0.061	−0.005
3.HS	0.379**	0.014	1	−0.298**	−0.271**	−0.014	−0.043	0.053	−0.099**	0.029
4.LC	0.366**	0.555**	−0.250**	1	0.244**	−0.052	0.001	−0.118**	0.019	−0.095**
5.RS					1	−0.223**	0.257**	−0.095**	0.359**	0.271**
6.Gender						1	−0.065	0.154**	−0.044	0.058
7.Age							1	−0.252**	0.678**	0.284**
8.Edu								1	−0.152**	0.357**
9.LS									1	0.385**
10.PL										1
M	2.996	3.143	2.596	3.268	4.203	1.406	3.268	2.416	4.890	3.169
SD_{Within}	0.908	0.945	0.898	0.826						
$SD_{between}$	0.704	0.745	0.678	0.627	0.680	0.491	1.349	0.742	1.630	1.652

Note: N=102 participants and N=836 data points; **p < 0.01; *p < 0.05. The diagonal line is the dividing line, the lower part indicates the within correlation coefficient; the upper part indicates the between correlation coefficient.

Abbreviations: LF, is leader's FoMO; CS, is challenge stress; HS, is hindrance stress; LC, is leader's creativity; RS, is role breadth self-efficacy; LS, is length of service; PL, is position level.

Hypothesis Test

As shown in Figure 2, leader's daily FoMO has a significant and positive impact on challenge stress ($\beta=0.385$, $p<0.001$). Challenge stress has a significant and positive impact on leader's daily creativity ($\beta=0.274$, $p<0.001$). To examine the mediation and moderated effects, we employed the MLmed Macro, which procedure can calculate 95% Monte Carlo confidence intervals based on 10,000 bootstrapping iterations.[35] MLmed results found that the indirect effect value of the leader's daily FoMO promoting daily creativity through challenge stress was 0.105,

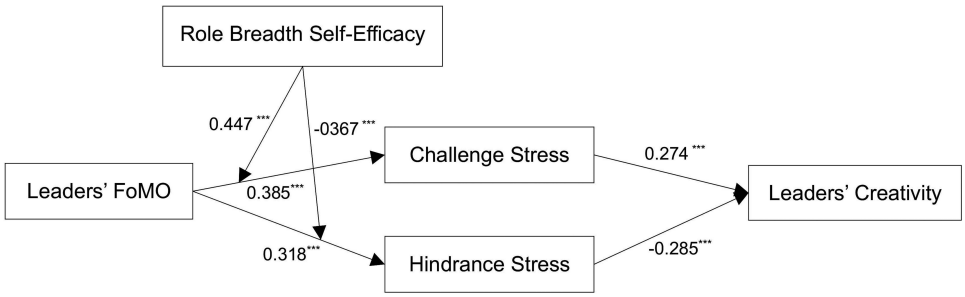

Figure 2 Model path coefficient.
Notes: Full model primary path coefficients are unstandardized. N=836, ***p< 0.001.

95% CI: [0.074, 0.137], without including zero (see Table 3). Therefore, challenge stress plays a mediating role between leader's daily FoMO and daily creativity. Hypothesis 1 was supported. Similarly, our analysis revealed a significant and positive impact of leader's daily FoMO on hindrance stress (β=0.318, p<0.001). Hindrance stress has a significant and negative impact on leader's daily creativity (β=−0.285, p<0.001). Using Monte Carlo simulation boot-pulling calculations, we determined that the indirect effect value of leaders' daily FoMO inhibiting their daily creativity through hindrance stress was −0.091, 95% CI: [−0.118, −0.064], without including zero (see Table 3). Consequently, hindrance stress also plays a mediating role between leader's daily FoMO and daily creativity. Hypothesis 2 was supported.

Table 3 The Mediating Role of Challenge Stress and Hindrance Stress

Effect	Paths	Estimate	SE	95%
Direct	LF→CS	0.385	0.032	[0.322, 0.448]
	CS→LC	0.274	0.032	[0.211, 0.326]
	LF→HS	0.318	0.033	[0.254, 0.382]
	HS→LC	−0.285	0.031	[−0.346, −0.234]
Indirect	LF→CS→LC	0.105	0.016	[0.074, 0.137]
	LF→HS→LC	−0.091	0.014	[−0.118, −0.064]

Abbreviations: LF, is leader's FoMO; CS, is challenge stress; HS, is hindrance stress; LC, is leader's creativity.

As shown in Figure 2, the leader's role breadth self-efficacy significantly and positively moderates the relationship between leaders' daily FoMO and challenge stress (β=0.447, p<0.001), and significantly and negatively affects the relationship between leaders' daily FoMO and hindrance stress (β=−0.367, p<0.001). To clarify the moderating role of role breadth self-efficacy in the relationship between leaders' daily FoMO and challenge stress and hindrance stress, we added or subtracted one standard deviation to better illustrate the impact of role breadth self-efficacy. Figure 3 shows that when role breadth self-efficacy is high, leaders' daily FoMO has a greater impact on challenge stress. Conversely, when role breadth self-efficacy is low, leaders' daily FoMO has a lesser impact on challenge stress. Therefore, role breadth self-efficacy moderates the relationship between leaders' daily FoMO and challenge stress. Hypothesis 3 was supported.

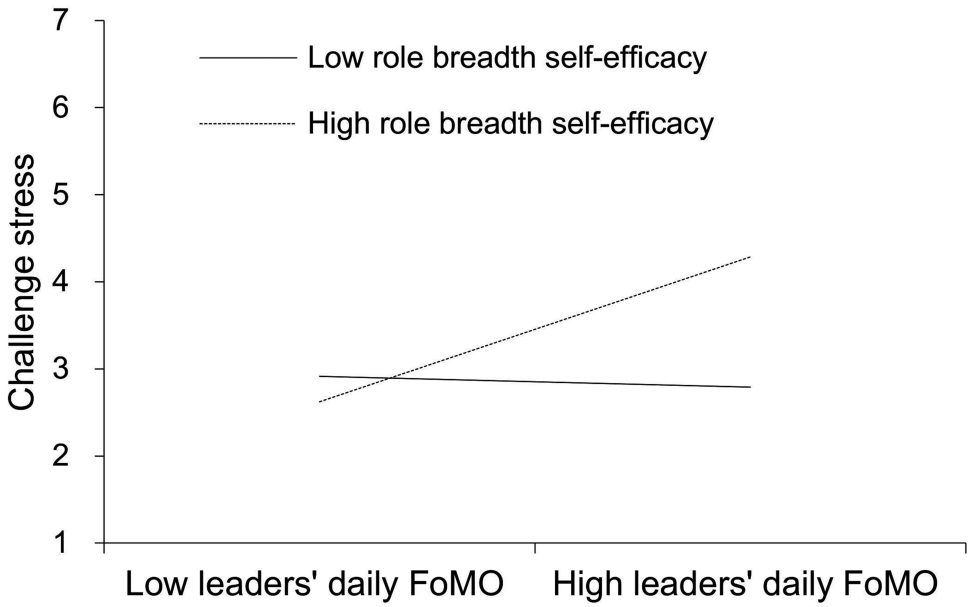

Figure 3 The moderating role of role breadth self-efficacy between leaders' daily FoMO and challenge stress.

As shown in Figure 4, when role breadth self-efficacy is low, leaders' daily FoMO has a greater impact on hindrance stress, whereas when role breadth self-efficacy is high, leaders' daily FoMO has a lower impact on hindrance stress. Therefore, role breadth self-efficacy moderates the relationship between leaders' daily FoMO and hindrance stress. Hypothesis 4 was supported.

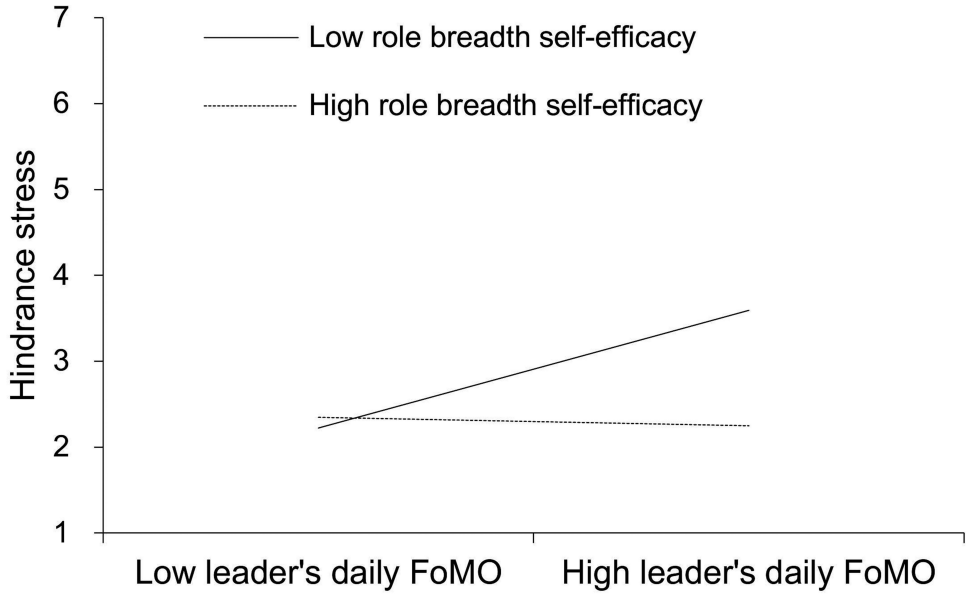

Figure 4 The moderating role of role breadth self-efficacy between leaders' daily FoMO and hindrance stress.

In the end, we employed MLmed Macro to calculate the effect of moderated mediation, and the results are presented in Table 4. In the group with high role breadth self-efficacy, the indirect effect of leaders' FoMO and leaders' creativity was significant through challenge stress, with a mediating effect value of 0.189, 95% CI: [0.140, 0.238], without including zero. Hypothesis 5 was supported. In the low role breadth self-efficacy group, there was a significant indirect effect of leaders' FoMO and leaders' creativity through hindrance stress, with a mediating effect value of −0.162, 95% CI: [−0.200, −0.124], without including zero. Hypothesis 6 was supported.

Table 4 Effect of Moderator Variables on the Mediating Process

Mediating Variables	Level of Moderating Variables	Estimate	SE	95%
Challenge stress	High role breadth self-efficacy	0.189	0.025	[0.140, 0.238]
	Low role breadth self-efficacy	0.022	0.014	[−0.005, 0.049]
Hindrance stress	High role breadth self-efficacy	−0.019	0.016	[−0.052, 0.013]
	Low role breadth self-efficacy	−0.162	0.019	[−0.200, −0.124]

Discussion

Leaders' FoMO and Leaders' Creativity

This study suggests that leaders' FoMO has a "double-edged sword" effect on leaders' creativity. Currently, a plethora of studies have been dedicated to examining the adverse effects of social media FoMO on individuals, such as phubbing,[7,36] social media fatigue,[37] problematic mobile phone use,[38] negative emotions,[39] sleep deficit,[40–42] and decreased subjective well-being.[43] BUDNICK et al[3] initially focused on workplace FoMO and studied the negative impact of employees' FoMO on employees. Subsequently, scholars have found that workplace FoMO can harm employees' work performance,[4] productivity,[5] and work engagement[6] by distracting their attention and depleting their resources. Although a limited number of studies have investigated the influence of workplace FoMO on employees' creativity,[7] they have focused on its negative effects. This study focuses on FoMO in the workplace and extends the scope of research on workplace FoMO from the employee level to the leadership level, and examines both the positive and negative impacts of leaders' FoMO on leaders' creativity. In addition, existing research data consists primarily of cross-sectional data collected at a single time point, whereas this study uses an experience sampling method to examine the relationship between variables. This is primarily due to recent studies that have identified workplace FoMO as an individual's fear or anxiety of missing out on valuable work-related information and interpersonal relationships.[3] Leaders who master organizational resources may experience fluctuations in their workplace FoMO due to varying work tasks, goals, and confidence in avoiding missing out and perception. Therefore, it is advisable to employ a dynamic research method to investigate the effect of leaders' daily FoMO on their creativity.

The Mediating Role of Challenge Stress and Hindrance Stress

This study found that challenge stress and hindrance stress have positive and negative mediating roles, respectively, between leaders' FoMO and leaders' creativity, thus supporting Hypothesis 1 and Hypothesis 2. These findings align with transactional stress theory,[12] which points that individuals assess stressors as either challenge stress or hindrance stress based on their conditions and then adopt different behavioral strategies. Firstly, this study considers workplace FoMO as a stressor, which is similar to previous research.[13,14] Stressors are found to significantly and positively predict individual challenge stress and hindrance stress and then produce constructive and destructive coping behaviors, which is consistent with the conclusions of previous studies.[12,44] For example, MITCHELL et al[45] found that daily performance pressure can be perceived by employees as either a threat, leading to a decline in self-regulation and the manifestation of dysfunctional behaviors such as rudeness, or as a challenge, stimulating employees' input, enhancing task proficiency, and promoting civic awareness. Secondly, previous studies have primarily focused on the negative effects of employees' FoMO on their work psychology and behavior, from the perspective of resource depletion in the work-family resource model.[6] However, this study believes that the specific effects of workplace FoMO depend on individual cognitive appraisal and is based on the transactional stress theory[12] to explore the positive and negative effects of leaders' FoMO on their creativity through challenge stress and hindrance stress. The research results enrich the study of the influence mechanism of workplace FoMO on leaders' work behavior. Finally, the comparison reveals that challenge stress has a higher mediating effect than hindrance stress. This implies that leaders have a more positive attitude towards workplace FoMO and are more likely to take the initiative to reduce or avoid missing out on useful work-related information and interpersonal relationships. The research suggests that organizations should establish an information release platform, improve the work feedback mechanism, help leaders grasp the latest developments of the organization, reduce leaders' FoMO, and pay more attention to leaders' daily pressure, improve their ability and belief to cope with challenge stress, and timely relieve hindrance stress. Leaders should use their initiative to assess pressure objectively and view it as a challenge stress rather than a hindrance stress to foster creativity.

The Moderating Effect of Role Breadth Self-Efficacy

The cross-layer analyses revealed that the relationship between leaders' FoMO and challenge stress and hindrance stress was moderated by role breadth self-efficacy, supporting Hypotheses 3 and Hypotheses 4. Additionally, the moderating effect of role breadth self-efficacy was also observed in the indirect effects of leaders' FoMO on leaders' creativity, specifically through challenge stress and hindrance stress, supporting Hypotheses 5 and Hypotheses 6. The research findings confirm that individual self-efficacy has an impact on stress appraisal.[26] Specifically, individuals with high levels of self-efficacy tend to perceive stressors as challenge stress rather than hindrance stress, as they are not afraid of external environmental demands and have confidence in their abilities.[26] Role breadth self-efficacy differs from general self-efficacy as it emphasizes broader role competencies rather than focusing on a specific ability.[15] Individuals with high role breadth self-efficacy are more confident in overcoming complex tasks and are more likely to view stressors as challenge stress rather than hindrance stress. The impact of leaders' FoMO, as a stressor, on their behavior is largely determined by the leader's evaluation of their circumstances. Individual role breadth self-efficacy is crucial for coping with complex tasks.[15] Leaders with high role breadth self-efficacy are more likely to view workplace FoMO as challenge stress and adopt positive coping methods, such as actively exerting creativity to carry out work related to interpersonal and integration tasks. Therefore, leaders' role breadth self-efficacy enhances the positive impact of leaders' FoMO on challenge stress, mitigates the negative impact of such leaders' FoMO on hindrance stress, and ultimately both encourages and hinders leaders' creativity. These findings enhance the academic community's understanding of when leaders' FoMO has positive and negative effects on their creativity. They also enlighten organizations that should foster, inspire, and protect leaders' role breadth self-efficacy. For example, offering diverse skills training can bolster managers' confidence and competence in handling intricate tasks, while acknowledging and supporting managers who exhibit a constructive and proactive work ethic.

Limitations and Future Research Directions

Firstly, the survey data was primarily derived from leaders' self-assessment, and although the application of the experience sampling method, involving two stages and two-time points, mitigated to some extent the limitations of the "one-time" self-report measurement, it did not entirely circumvent the adverse impacts of common methodological biases. Future research could enhance data reliability by collecting leaders' creativity data from multiple sources, such as subordinates, colleagues, or clients, to test the relationship between the data more effectively.

Secondly, in terms of mediating mechanisms, the current study was based solely on the transactional stress theory, examining the effects of two distinct types of stress, challenge stress and hindrance stress. Future research might explore other potential mediating mechanisms from the perspective of self-determination theory, such as belonging, psychological security, and basic psychological needs.

Thirdly, in terms of boundary conditions, the current study focused solely on the moderating effect of role breadth self-efficacy, as an individual leader characteristic, on the relationship between leaders' FoMO and stress. Future research could also examine the contingent effect of other individual characteristic variables, such as personality traits. Concurrently, situational factors (organizational systems, cultures, and colleague behaviors) are also key factors that influence cognitive and behavioral changes in individuals after experiencing workplace FoMO.[16] Future research could delve into the interaction between leaders' daily FoMO and the aforementioned factors, as well as the influence mechanism on stress and creativity, thereby expanding the research framework within the domain of leaders' FoMO.

Conclusion

Drawing upon transactional stress theory, this study investigates the double-edged sword effect of leaders' daily FoMO on their daily creativity, and explicitly elucidates the internal mechanism of leaders' daily FoMO on their daily creativity, as well as the boundary conditions of leaders' daily FoMO on challenge stress and hindrance stress. Employing the experience sampling method, 836 observations were collected from 102 managers across 10 consecutive working days. The analysis results indicate that: leaders' daily FoMO exerts both positive and negative effects on their daily creativity through challenge stress and hindrance stress. Role breadth self-efficacy amplifies the positive influence of leaders' daily FoMO on challenge stress; while mitigating the negative impact of leaders' daily FoMO on hindrance stress. Role breadth self-efficacy enhances the mediating effect of challenge stress on leaders' daily FoMO and daily creativity; while weakening the mediating effect of hindrance stress on leaders' daily

FoMO and daily creativity. Specifically, when leaders' role breadth self-efficacy is high, the mediating effect of challenge stress is significant, while hindrance stress is not. Conversely, when leaders' role breadth self-efficacy is low, the mediating effect of challenge stress is insignificant, but the mediating effect of hindrance stress is significant.

Data Sharing Statement

The data provided are available at the request from the corresponding author.

Ethics Statement

This study was reviewed and approved by the Shihezi University of Economics and Management Ethics Committee. We declare that participants in our research study allow us to use their data for academic research and publication. All the participants were anonymous and their data was protected. All participants provided informed consent and this study was conducted in accordance with the Declaration of Helsinki.

Acknowledgments

The authors would like to extend their deepest appreciation to the individuals and groups who contributed to the research process. The authors acknowledge the support provided by the National Natural Science Foundation of China (No. 72162029).

Disclosure

The authors report no conflicts of interest in this work.

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