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RESEARCH ARTICLE

Leader–Member Exchange and Lecturer Well-Being in Thai Rajabhat Universities: A Composite SEM Approach with Parallel Mediation of Workload Justice and COVID-19 Quality of Life

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Abstract

Faculty well-being has become a pressing concern in higher education as workload intensifies and digital teaching demands expand. Although leader–member exchange (LMX) is widely studied, empirical evidence from Southeast Asian universities during crises remains limited. This study examines the direct and indirect effects of LMX on faculty well-being through workload justice, online teaching satisfaction, and COVID-19 quality of life (QOL). Survey data from 143 full-time faculty at Rajabhat universities in the Bangkok metropolitan area were analyzed using composite-based structural equation modeling (ADANCO 2.31) with confirmatory composite analysis. An initial serial mediation (workload justice → online teaching satisfaction) was not supported because online teaching satisfaction did not significantly predict well-being ($\beta = 0.115$, $p = 0.339$). A better-fitting parallel mediation model (SRMR = 0.026) showed that LMX strongly predicted workload justice ($\beta = 0.817$, $p < 0.001$) and modestly predicted COVID-19 QOL ($\beta = 0.193$, $p < 0.05$). Both workload justice ($\beta = 0.333$, $p < 0.01$) and COVID-19 QOL ($\beta = 0.297$, $p < 0.001$) were positively associated with well-being, and the direct effect of LMX on well-being remained significant ($\beta = 0.339$, $p < 0.01$), indicating partial mediation. The model explained substantial variance in workload justice ($R^2 = 0.667$) and well-being ($R^2 = 0.579$). Theoretically, the findings extend LMX to crisis contexts by introducing COVID-19 QOL as a parallel mediator capturing life-domain disruptions. Methodologically, confirmatory composite analysis improves the modeling of emergent constructs. Practically, strengthening LMX relationships, ensuring transparent workload management, and providing supports that protect faculty life quality are critical for sustaining well-being in the post-pandemic era.

Keywords: Leader–Member Exchange (LMX), Workload justice, Online teaching satisfaction, COVID-19 Quality of Life (QOL), Faculty well-being, Confirmatory composite analysis, Composite-based SEM, Thai Rajabhat Universities

Introduction

Faculty well-being is central to the quality of higher education and is associated with teaching effectiveness, student learning outcomes, and institutional sustainability (Hascher & Waber, 2021; Duckworth et al., 2009). Faculty members' experiences are shaped by job satisfaction (Sironi, 2019), workload allocation (Pace et al., 2021), and perceptions of organizational justice (Huong et al., 2016). Leader–Member Exchange (LMX) theory provides a useful lens for understanding how the quality of relationships between academic leaders and faculty shapes fairness, support, and well-being (Graen & Uhl-Bien, 1995; Greguras & Ford, 2006). High-quality LMX, characterized by mutual trust, respect, and obligation, has been linked to enhanced work experiences and personal outcomes in higher education.

Despite a rich literature, important gaps remain. Empirical evidence from Thai higher education,

particularly the Rajabhat system, is limited, and little is known about how LMX relates to faculty well-being during crises such as COVID-19 (Jarab et al., 2022; Li & Yu, 2022). The mediating role of workload justice between leadership and well-being is underexplored in Southeast Asian contexts. Moreover, the assumed mediating role of satisfaction with online teaching is not yet well established, and prior models often presume a serial pathway without sufficient empirical support. Notably, research has not incorporated COVID-19 quality of life (QOL), a measure of pandemic-related disruptions to health, safety, income, and social relations (Repišti et al., 2020), into the LMX framework.

Addressing these gaps, this study investigates how LMX shapes workload justice, satisfaction with online teaching, and COVID-19 QOL, and, in turn, faculty well-being in Thai Rajabhat universities. We test whether workload justice and online teaching satisfaction operate as sequential mediators, or whether COVID-19 QOL functions alongside workload justice as a distinct, parallel pathway from LMX to well-being. In doing so, we clarify the mechanisms through which leadership operates in higher education and extend the theorization of LMX to crisis conditions.

This research offers three contributions. Theoretically, it introduces COVID-19 QOL as a mediator, demonstrating that leadership affects not only job-related perceptions but also broader life quality during crises (Panadero et al., 2022). Methodologically, it employs a composite-based structural equation modeling approach with confirmatory composite analysis, improving the rigor of mediation testing among emergent constructs (Hair et al., 2019). Practically, it provides guidance for Thai university administrators and policymakers on strengthening LMX relationships and implementing transparent workload policies to support faculty well-being and resilience in the post-pandemic era.

Literature reviews, hypothesis development, and conceptual framework

Anonymous Rajabhat University faculty members' performance appraisal

Rajabhat universities in Thailand must conduct performance evaluations in accordance with the Civil Service Commission's regulations for Higher Education Institutions (2010). Typically, the dean serves as the appraiser, and the appraisal criteria are either mutually agreed upon by the appraiser and appraisee or established through a public hearing. Faculty responsibilities span teaching, research, preservation of arts and culture, and academic service, with a statutory minimum of 35 working hours per week (Civil Service Commission in Higher Education Institutions, 2015).

However, at one anonymous Rajabhat university, the president unilaterally changed the evaluation procedure by adopting a percentage-based method and acting as the sole evaluator. New indicators were introduced without public consultation, and workload items included teaching, research, and Objectives and Key Results (OKRs). The results indicated that the highest-ranked lecturers reported weekly workloads approaching 170 hours, far beyond the statutory 35 hours, prompting resistance from academic staff, many of whom received lower scores compared with the previous system. Workload is closely linked to academic job satisfaction (Houston et al., 2006). Moreover, faculty satisfaction or dissatisfaction with workload management may be shaped by leadership style as framed by Leader–Member Exchange (LMX) theory, with resultant fairness perceptions influencing well-being.

Leader-member exchange

Leader–Member Exchange (LMX) theory (Graen & Uhl-Bien, 1995) explains variation in the quality of leader– subordinate relationships. High-quality exchanges are characterized by trust, respect, and mutual obligation; low-quality exchanges provide limited support and are governed primarily by formal rules. Through role-taking, role-making, and routinization, dyadic interaction patterns shape work outcomes. LMX emphasizes that leaders form differentiated relationships with followers, creating in-groups and out-groups (Kopperud et al., 2021): in-group members experience high-quality social exchange and favorable treatment, whereas out-group members experience lower-quality, more transactional exchanges (Aggarwal et al., 2020).

A substantial body of research links high-quality LMX to positive outcomes, including greater job satisfaction, well-being (Sparr & Sonnentag, 2008), perceptions of organizational justice (Ionescu & Iliescu, 2021), productivity, and motivation (Ilies et al., 2007).

These effects are often explained by social exchange theory (Blau, 1964): when employees perceive supervisors as supportive and fair, and as caring about their well-being, they reciprocate with engagement, performance, and citizenship behaviors (Graen & Uhl-Bien, 1995). Nonetheless, scholars have noted potential downsides, including inequities and tensions within work groups (Hooper & Martin, 2008), and there remains debate over how best to measure LMX (Schriesheim et al., 1999).

Workload justice perception

Perceptions of workload justice constitute a specific facet of organizational justice that concerns fairness in workload distribution, calculation methods, performance reviews, evaluation criteria, and pay-increase policies (Arneson, 2019). In Rajabhat universities, lecturers are required to work at least 35 hours per week; thus, changes to workload policies instituted by university presidents can substantially affect well-being.

Organizational justice, employees' fairness judgments regarding outcomes, procedures, and interpersonal treatment, is well established in industrial/organizational psychology (Greenberg, 1990). Colquitt (2001) distinguished distributive, procedural, interpersonal, and informational justice. LMX quality can shape justice perceptions because performance appraisal and other procedures occur within ongoing leader–member relationships (Kumar & Singh, 2011). Employees in high-quality LMX relationships tend to perceive greater decision influence (Scandura et al., 1986) and more positive supervisory dynamics (trust, respect, affect, and openness); empirical studies show that LMX predicts procedural justice (Erdogan, 2002; Kumar & Singh, 2011).

Accordingly, perceptions of workload justice can be treated as a subset of organizational justice that focuses on fairness in workload management. Examining workload justice in higher education clarifies how fairness perceptions shape faculty experiences and well-being.

Online teaching satisfaction

Satisfaction with online teaching, an aspect of job satisfaction, reflects positive evaluations of working conditions in online education (Worrell et al., 2006). The COVID-19 pandemic precipitated a rapid pivot to online learning, often via emergency remote teaching (ERT) (Hodges et al., 2020; Misirli & Ergulec, 2021), which posed challenges for students, parents, teachers, leaders, and governments (Lepp & Luik, 2021) and sometimes lacked sound pedagogical grounding (Bozkurt & Sharma, 2020). Factors influencing satisfaction include technology and facilities, interaction, and outcomes (Elshami et al., 2021). More broadly, job satisfaction is shaped by work environment, resources, leadership style, compensation and benefits, LMX, and workload (Hee et al., 2020), with high-quality LMX consistently linked to higher satisfaction (Sparrowe, 1994; Stringer, 2006).

Because job satisfaction relates to performance, turnover, organizational commitment, burnout (Mgaiwa, 2021), and well-being, and because numerous studies document positive links between job satisfaction and well-being (Judge et al., 2001), understanding online teaching satisfaction during COVID-19 is critical. As institutions continue to manage online modalities, evidence on how online teaching satisfaction relates to LMX and other organizational factors can guide targeted interventions that support faculty well-being.

Lecturer well-being

Lecturer well-being encompasses responses to mental, emotional, physical, and social demands of academic work (Viac & Fraser, 2020). In Seligman's (2012) terms, well-being reflects chosen pursuits of engagement, relationships, meaning, and achievement. In higher education, lecturer well-being is closely tied to motivation and job satisfaction and, in turn, to teaching quality and institutional performance (de Lourdes Machado et al., 2011; Hascher & Waber, 2021). Leadership style, workload fairness, and organizational justice have all been identified as important antecedents (Huong et al., 2016; Fujishiro & Heaney, 2009).

Beyond traditional well-being indicators, scholars have emphasized Quality of Life (QOL), particularly during the pandemic. COVID-19 QOL gauges pandemic-related disruptions to health, safety, income, access to healthcare, social relationships, and cultural or religious practices (Repišti et al., 2020). Unlike global QOL, which reflects overall life satisfaction, COVID-19 QOL focuses on crisis-specific disruptions. Evidence

suggests that supportive leadership and fair workload management can buffer adverse pandemic effects and help maintain resilience and quality of life (Panadero et al., 2022). Including COVID-19 QOL thus provides a more complete view of how LMX influences faculty outcomes, not only via workload justice and online teaching satisfaction but also by protecting broader life quality during the post-pandemic transition.

Theoretical support for COVID-19 QOL

Two perspectives justify incorporating COVID-19 QOL into the LMX framework. First, Conservation of Resources (COR) theory (Hobfoll, 1989) posits that individuals seek to acquire and protect valued resources (e.g., health, safety, income, social support); crises threaten these resources and erode life quality. High-quality LMX may buffer losses by providing emotional support, guidance, and access to institutional resources. Second, Social Exchange Theory (SET) (Blau, 1964) suggests that employees reciprocate supportive leadership with loyalty, commitment, and resilience. When leaders acknowledge faculty members' life-domain challenges, beyond workload fairness, trust and perceived reciprocity increase, enhancing both COVID-19 QOL and well-being. Together, COR and SET indicate that LMX affects not only work-related perceptions (e.g., workload justice) but also broader life domains (COVID-19 QOL) under crisis conditions, supporting a parallel-mediation specification.

Hypotheses development

Leader–Member Exchange (LMX) theory posits that the quality of relationships between leaders and subordinates has a significant impact on employee outcomes (Graen & Uhl-Bien, 1995). In higher education, supportive leadership boosts trust, fairness, and faculty performance (Greguras & Ford, 2006). Consistent with previous research, it is expected that high-quality LMX will positively affect workload justice, online teaching satisfaction, and lecturer well-being. Therefore, **H1** suggests that LMX has a significant positive effect on workload justice. Building on this, **H2** predicts that LMX positively influences satisfaction with online teaching, while **H3** asserts that LMX positively impacts lecturer well-being.

Workload justice has long been associated with perceptions of fairness and well-being outcomes in academic settings (Fujishiro & Heaney, 2009; Pace et al., 2021). When faculty members view workload distribution as fair, their satisfaction and psychological well-being improve. Therefore, **H4** suggests that workload justice positively impacts online teaching satisfaction, while **H5** indicates that workload justice positively affects lecturer well-being.

Online teaching satisfaction became a prominent issue during the COVID-19 pandemic, influencing faculty morale and performance (Li & Yu, 2022). Lecturers who are satisfied with their online teaching environments tend to report higher levels of well-being. Therefore, **H6** states that online teaching satisfaction has a positive effect on lecturer well-being.

Mediating effects offer more profound insights into how LMX influences faculty outcomes. Based on organizational behavior research (MacKinnon, 2008; Hayes, 2022), **H7** suggests that workload justice and online teaching satisfaction sequentially mediate the relationship between LMX and well-being. Additionally, **H8** indicates that workload justice alone mediates the link between LMX and online teaching satisfaction. Simultaneously, **H9** proposes that online teaching satisfaction mediates the connection between workload justice and lecturer well-being.

Finally, building on recent studies that highlight the pandemic's impact on academic life (Repišti et al., 2020; Panadero et al., 2022), this study introduces COVID-19 QOL as a new mediator. COVID-19 QOL reflects pandemic-related disruptions in health, safety, income, and social relationships, which may function independently of workload justice. Therefore, **H10** suggests that workload justice and COVID-19 QOL serve as parallel mediators between LMX and lecturer well-being, with each explaining distinct pathways through which leadership influences faculty outcomes.

Conceptual framework of the study

This framework demonstrates the direct and indirect effects of leader–member exchange (LMX) on lecturer well-being in Thai Rajabhat universities. LMX is believed to influence workload justice, online teaching satisfaction, COVID-19 quality of life (QOL), and lecturer well-being. Workload justice and online teaching satisfaction were initially modeled as sequential mediators; however, empirical findings showed that online teaching satisfaction did not

significantly predict well-being, breaking the serial mediation chain. To expand the model, COVID-19 QOL was added as an extra mediator. In the extended framework (Figure 2), workload justice and COVID-19 QOL are viewed as parallel mediators, representing separate pathways through which LMX impacts lecturer well- being. This framework highlights both the theoretical basis of LMX and the new contribution of incorporating COVID-19 QOL to reflect broader life effects in the post-pandemic era.

Table 1 Summary of hypothesis

Hypothesis	Statement
H1	LMX has a positive effect on workload justice.
H2	LMX has a positive effect on online teaching satisfaction.
H3	LMX has a positive effect on the lecturer's well-being.
H4	Workload justice has a positive effect on online teaching satisfaction.
H5	Workload justice has a positive effect on lecturer well-being.
H6	Online teaching satisfaction has a positive effect on the lecturer's well-being.
H7	The relationship between LMX and lecturer well-being is sequentially mediated by workload justice and online teaching satisfaction.
H8	The relationship between LMX and online teaching satisfaction is mediated by workload justice.
H9	The relationship between workload justice and lecturer well-being is mediated by online teaching satisfaction.
H10	The relationship between LMX and lecturer well-being is mediated in parallel by workload justice and COVID-19 QOL.

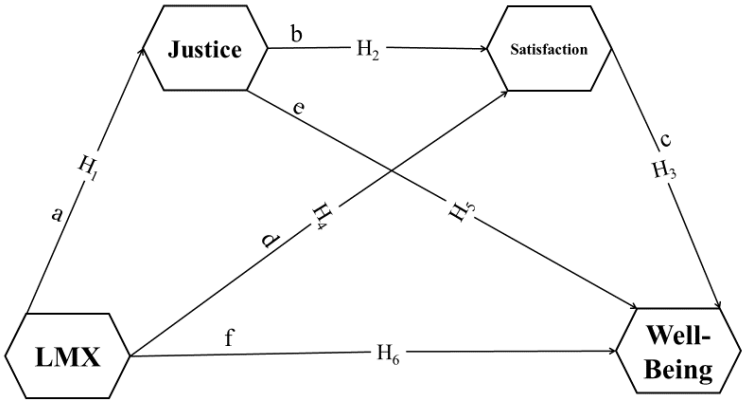

Figure 1 Conceptual framework

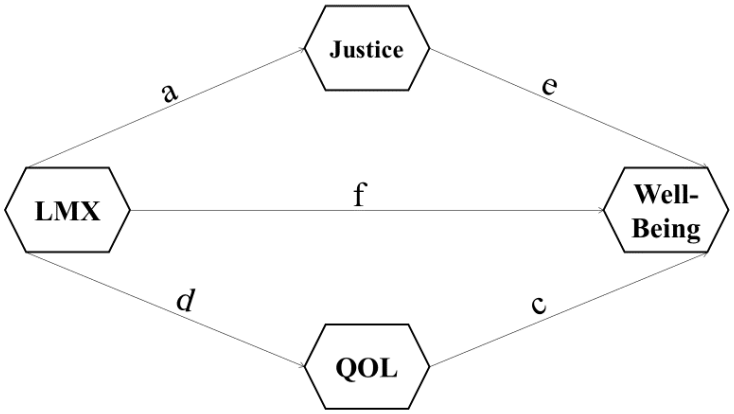

Figure 2 Extended framework

Methods

Sample size and participants

The a priori sample size was determined using Soper's (2022) criteria (effect size = 0.15, statistical power = 0.80, 21 indicators, four emergent variables, α = 0.05), yielding a minimum requirement of n = 116. The target population comprised full-time faculty members at Rajabhat universities in Bangkok and the surrounding metropolitan area.

Data collection and response rate

Data were collected in October 2023, during the post-pandemic adjustment period when most COVID-19 restrictions in Thailand had eased, although residual effects on academic work persisted. An electronic questionnaire was distributed via institutional email to 255 faculty members at selected Rajabhat universities. We received 143 valid responses (response rate = 56%), exceeding the minimum sample size by 23.3% and meeting accepted standards for higher-education survey research (Cook et al., 2000).

Sample characteristics

The final sample (n = 143) included lecturers from multiple disciplines and with varied years of professional experience across Rajabhat universities in greater Bangkok. All respondents were full-time faculty engaged in both teaching and research. The achieved sample size and response rate provided adequate statistical power for structural equation modeling within this geographic and institutional context.

Questionnaires

Four composite constructs were modeled: Leader–Member Exchange (LMX), workload justice, online teaching satisfaction, and lecturer well-being. The LMX construct comprised seven indicators based on Graen and Uhl-Bien (1995). Each of the remaining three constructs— workload justice, online teaching satisfaction, and lecturer well-being— comprised five indicators. Online teaching satisfaction followed Elshami et al. (2021). The lecturer well-being indicators were adapted from prior research (Jones et al., 2019; Kidger et al., 2016; Renshaw et al., 2015; Wigford & Higgins, 2019). Workload justice items were developed to reflect an anonymous Rajabhat University policy on workload management, posing five key questions regarding workload changes initiated by the university president.

In addition to these constructs, COVID-19 Quality of Life (COVID-19 QOL) was assessed using six items from Repišti et al. (2020), capturing pandemic-related impacts on life quality, health and safety, income, access to healthcare, social relationships, and religious/cultural practices. All items used a five-point Likert scale, with higher scores indicating greater impact. The COVID-19 QOL scale demonstrated strong internal consistency (α > 0.85).

Table 2 The questionnaires

Indicators	Measurement	Sources
Leader-member exchange (Reliability is 0.955)		
LMX1	The president understands the problems and needs in your work.	LMX-7
LMX2	The president understands your potential.	Graen & Uhl-Bien (1995)
LMX3	Informally, the president can assist you with your problems and duties.	
LMX4	Despite your doubts, you trusted the president's decision.	
LMX5	How good is your working relationship with the president?	
LMX6	How satisfied are you if you work with the president?	
LMX7	The president resolves issues in a professional and timely manner.	
Workload justice (Reliability is 0.949)		
Just1	The university distributes its workload fairly.	Problems concern
Just2	The university's workload estimation technique is equitable.	
Just3	The university is fair in its performance evaluations.	
Just4	The university's performance evaluation criteria are fair.	

Indicators	Measurement	Sources
Just5	In terms of remuneration increases, the university is reasonable.	
Online teaching satisfaction (Reliability is 0.901)		Adapted from Elshami et al (2021)
Satis1	Satisfaction with students' responsibility in online education	
Satis2	University's online learning system and technology satisfaction	
Satis3	Satisfaction with student-student and teacher-student interactions	
Satis4	Satisfaction with the student evaluation system	
Satis5	Satisfied with the president's support for online teaching	
Lecturer well-being (Reliability is 0.792)		
Well1	I feel that the university genuinely cares for its staff.	
Well2	I feel supported by my co-workers in my work.	Jones et al. (2019)
Well3	I feel pride in being a part of this university.	Renshaw et al (2015)
Well4	I can complete tasks efficiently and contribute to the well-being of others.	Wigford and Higgins (2019), and Kidger et al. (2016)
COVID-19 Quality of Life (Reliability is 0.852)		
QOL1	The COVID-19 pandemic has impacted the quality of life.	Repišti et al. (2020)
QOL2	The COVID-19 pandemic has impacted general health and the sense of safety in daily life.	
QOL3	The COVID-19 pandemic has impacted income.	
QOL4	The COVID-19 pandemic has impacted access to healthcare services.	
QOL5	The COVID-19 pandemic has impacted the maintenance of relationships with family and friends.	Adapted for cultural context

Quality of the composite model

This study employs composite-based partial least squares structural equation modeling (PLS-SEM) to specify all constructs as emergent (formative) variables, estimated with ADANCO 2.31 (Henseler & Dijkstra, 2015). Following Hubona et al. (2021) and Yu et al. (2021), constructs that are theoretically conceived as composites—LMX, workload justice, online teaching satisfaction, and lecturer well-being—are modeled as emergent variables. Prior work also suggests that, for such constructs, composite modeling can be preferable to reflective specifications (e.g., PLSc) in certain measurement contexts (Jhantasana, 2022). The quality of the composite model is evaluated in three parts: overall goodness-of-fit, measurement model, and structural model.

Overall model fit

ADANCO assesses global fit by bootstrapping the discrepancy between the empirical and model-implied correlation matrices (Henseler & Dijkstra, 2015). Three indices are reported: SRMR (standardized root mean square residual), dULS (unweighted least squares discrepancy), and dG (geodesic discrepancy). Model fit is considered adequate when the observed values are below the 95% and preferably the 99% bootstrap quantiles (HI95/HI99). In addition, SRMR < 0.06 is commonly used as a stringent threshold (Henseler et al., 2014). For composite models, satisfactory global fit supports the nomological validity of the measurement and structural relations. ADANCO provides both saturated and estimated model statistics; consistent with recommended practice, saturated-model results are typically reported (Henseler, 2017).

Measurement model (emergent constructs)

Nomological validity at the measurement level is examined via the significance and relevance of indicator weights and the absence of multicollinearity (Henseler, 2017). Indicator t-values ≥ 1.96 (two-tailed) indicate significant weights; when a weight is not significant, indicators can be retained if their loadings ≥ 0.50 and they are theoretically essential (Hair et al., 2010). Multicollinearity is diagnosed with VIF: values > 5 suggest collinearity concerns (Benitez et al., 2020), and a full collinearity VIF < 3.3 is often used as a conservative screen for common method variance (Podsakoff et al., 2012; Kock, 2015). Note that for emergent (composite) constructs, internal-consistency

reliability indices used for reflective models (e.g., Cronbach's α) are not central; ADANCO treats composites as linear aggregates, so evaluation focuses on indicator weights, loadings, and VIF rather than internal consistency. Importantly, lower (not higher) VIF values indicate less collinearity and improved measurement quality.

Structural model

Structural quality is assessed by the significance of path coefficients (t-statistics ≥ 1.96 and p-values), effect sizes (f^2), and explained variance (R^2). Cohen's f^2 values of 0.02, 0.15, and 0.35 reflect small, medium, and large effects, respectively (Cohen, 1988). In PLS-SEM applications, $R^2 \approx 0.25$, 0.50, and 0.75 are often interpreted as weak, moderate, and substantial explanatory power (Hair et al., 2010). These criteria jointly indicate whether the proposed nomological network is consistent with theory and whether the model provides meaningful predictive/explanatory utility.

Results

The outcome of biometric data

Three variables were examined in the 143 samples: gender, position, and Rajabhat University. The gender distribution included males and females. Regarding positions, there were 115 university staff lecturers and 28 civil servant lecturers. University-wise,102 lecturers were from the primary Rajabhat University and 41 from other institutions.

Goodness of fit

Table 3 shows the total model fit from the saturation model with three criteria: SRMR, d_{ULS}, and d_G, respectively. Each of these three values is less than 99% of the bootstrap value (HI99), suggesting that the empirical data and model are fit.

Table 3 Total model fit

Parameters	Saturated Model		
	Value	**HI95**	**HI99**
SRMR	0.034	0.033	0.039
d_{ULS}	0.063	0.061	0.082
d_G	0.102	0.083	0.104

Measurement model

The nomological network can be assessed from the overall model fit (Henseler, 2018), which indicates validity. The significance of weights can be evaluated with t-statistics above 1.96, as all online teaching satisfaction indicators are significant. Additionally, when examining loadings, values above 0.50 suggest they can be retained in the model. Regarding VIF for multicollinearity, this study strongly recommends avoiding indicators with a VIF greater than 3.3 to reduce common method bias. The indicators listed in Table 4 are those that remain in each emergent construct, including workload justice and LMX, after removing many indicators due to multicollinearity.

Structural model

The structural model is used to analyze the relationships between emergent variables. Five hypotheses were tested in this study using t-statistics, p-values, F2, and R2. The coefficients of determination for workload justice, online teaching satisfaction, and well-being are greater than moderate. The first and second hypotheses have a large effect size, while the fourth hypothesis has a moderate effect size. Additionally, check Table 5 and Figure 2 for the significance of paths derived from t-statistics and p-values, which are all accepted except for the sixth hypothesis.

Table 4 Measurement model of CCA

Indicator	Mode B			
	Loading	Weight	t-statistic of Weight	VIF
JUST1	0.931	0.503	6.154	2.378
JUST5	0.945	0.562	6.971	2.378
SATIS1	0.634	0.118	1.316	1.891
SATIS2	0.838	0.145	1.026	2.736
SATIS4	0.728	0.082	0.843	2.172
SATIS5	0.980	0.760	7.071	2.679
LMX2	0.962	0.652	9.572	2.277
LMX6	0.902	0.413	5.656	2.277
WELL1	0.995	0.916	16.463	1.595
WELL2	0.688	0.128	1.644	1.595

Table 5 The hypothesis

The effect	Beta	Standard error	t-value	p-value	Cohen's f^2	Hypothesis
H1: LMX→Workload justice	0.862	0.025	34.843	0.000	2.896	Supported
H2: LMX→Online teaching satisfaction	0.673	0.092	7.296	0.000	0.422	Supported
H3: Online teaching satisfaction→ Well-being	0.115	0.121	0.956	0.339	0.011	Not supported
H4: Workload justice →Online teaching satisfaction	0.199	0.099	2.011	0.044	0.037	Supported
H5: Workload justice→ Well-being	0.412	0.121	3.396	0.001	0.120	Supported
H6: LMX→Well-being	0.321	0.161	1.995	0.046	0.053	Supported

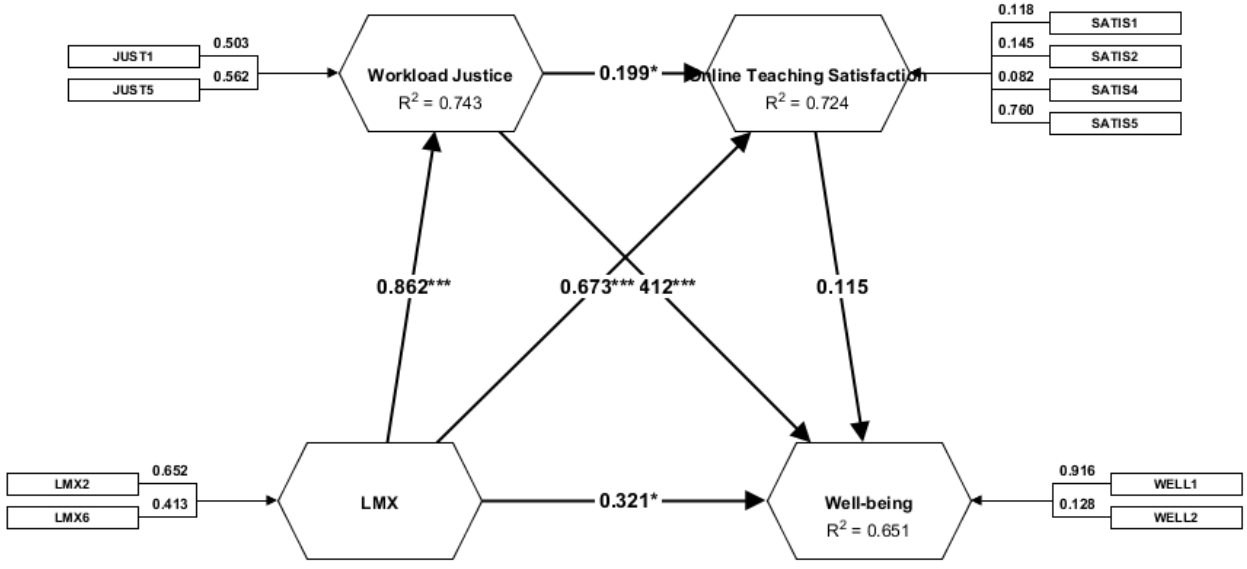

Figure 3 The outcomes of a structural model with workload justice and online teaching satisfaction, no serial mediation
Notes: N = 143, *p < 0.05, **p < 0.01, ***p < 0.001

Indirect effect study

Table 6 and Figure 3 support the seventh hypothesis, which examines two mediators: workload justice and online teaching satisfaction. Three paths contribute to the 0.453 effect of this hypothesis: (0.862*0.199*0.115) + (0.673*0.115) + (0.862*0.412). Because the relationship between online teaching satisfaction and lecturer well-being is not significant, there is no serial mediation between workload justice and online teaching satisfaction. However, the ADANCO results show that hypothesis seven, which explores the indirect effect of LMX on lecturers' well-being, is supported. Hypothesis eight is also supported, yielding an indirect effect of 0.172, since (0.862*0.199) indicates that workload justice is a partial mediator. The ninth hypothesis was not supported, suggesting that there is only a direct relationship between workload justice and lecturer well-being, and online teaching satisfaction does not serve as a mediator.

Table 6 The indirect effect hypothesis

The effect	Original coefficient	Standard error	t-value	p-value (2-sided)	Hypothesis
H7: LMX→Well-being	0.453	0.132	3.437	0.001	Supported
H8: LMX→Online teaching satisfaction	0.172	0.087	1.983	0.047	Supported
H9: Workload justice→Well-being	0.023	0.032	0.719	0.472	Not supported

The results show that H3 was not significant, indicating there is no serial mediation effect. Although workload justice acted as a mediator, online teaching satisfaction did not significantly influence well-being. Consequently, the two variables could not serve as serial mediators together. Additionally, while workload justice significantly predicted online teaching satisfaction, this relationship did not support a parallel mediation model. To expand the model, COVID-19 QOL was included as another mediator. The analysis revealed no causal link between workload justice and COVID-19 QOL, suggesting that these two variables serve as parallel mediators between LMX and the well-being of Rajabhat staff.

Parallel mediation effect

Table 7 shows that the model demonstrates a good fit. The **SRMR value of 0.026** is well below the 0.08 threshold, confirming a strong model fit. Both **dULS (0.030)** and **dG (0.027)** are lower than their corresponding HI95 and HI99 values, indicating that the empirical model is not significantly different from the saturated model. These results confirm the adequacy of the parallel mediation model specification.

Table 7 Model fit of Parallel Mediation Effect

	Value	HI95	HI99
SRMR	0.026	0.048	0.057
d_{ULS}	0.030	0.104	0.145
d_G	0.027	0.055	0.066

Measurement Model: The measurement model shows acceptable validity based on the overall model fit. The variance inflation factors (VIF) for LMX2 and LMX7 were the highest, both at 2.325, which is still well below the threshold of 3.3 suggested by Kock (2015). This confirms that common method bias (CMB) is not a concern. Regarding indicator reliability, the t-values for QOL4 (0.771) and WLL2 (1.912) fell below the recommended cutoff of 1.96. However, since their factor loadings exceeded the acceptable threshold of 0.50, both indicators were retained in the model.

Structural model: The structural model demonstrates robust explanatory power. LMX

significantly predicts **Workload Justice** (β= 0.817, p<0. 001) and **COVID- 19 Quality of Life (QOL)** (β= 0. 193, p<0. 05) . In turn, both Workload Justice (β= 0. 333, p<0. 01) and COVID- 19 QOL (β= 0. 297, p<0. 001) exert significant positive effects on **Well-being**. Furthermore, the direct path from LMX to Well-being remains significant (β=0.339, p<0.01), indicating **partial mediation**. The model explains substantial variance, with R^2 = 0. 667 for Workload Justice, R^2 = 0. 037 for COVID- 19 QOL, and R^2 = 0. 579 for Well-being. These results confirm that LMX influences faculty well- being both directly and indirectly through two parallel mediators: workload justice and COVID-19 QOL.

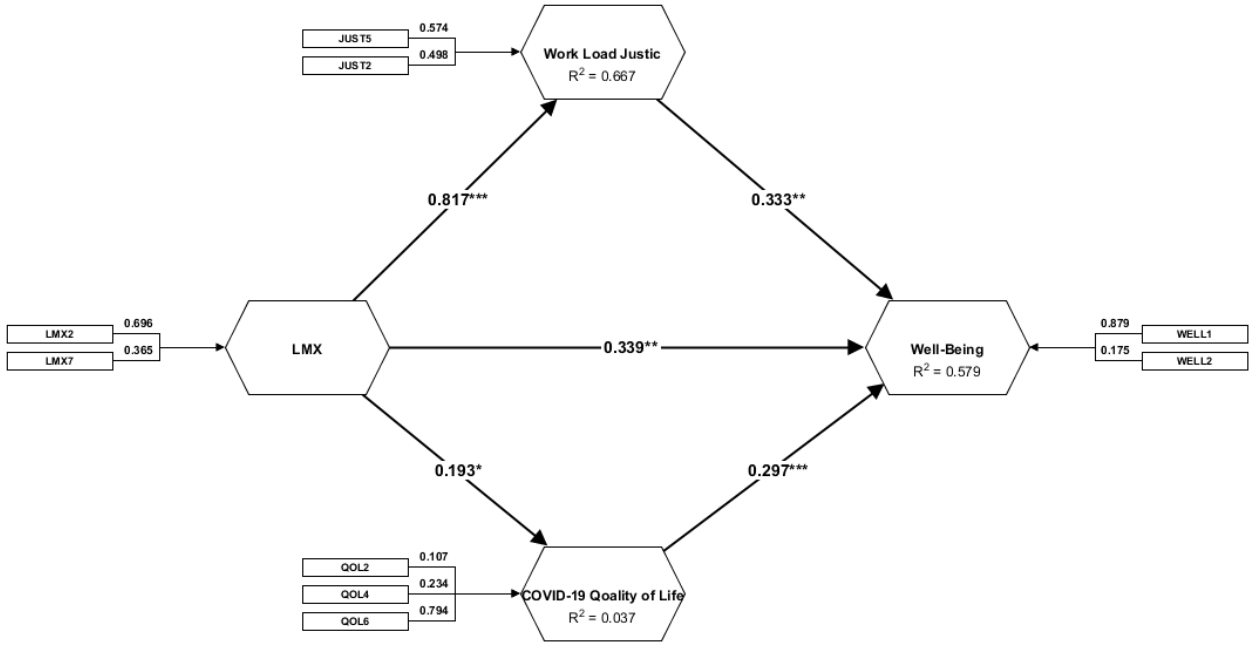

Figure 4 The outcomes of a structural model with workload justice and COVID-19 quality of life with parallel mediation
Notes: N = 143, *p < 0.05, **p < 0.01, ***p < 0.001

Results for hypothesis 10

The results support **H10**, which tested the parallel mediation effects of workload justice and COVID-19 QOL on the relationship between LMX and lecturer well-being. The indirect effect through workload justice was calculated as the product of paths a×e= 0.817×0. 333= 0.272, while the indirect effect through COVID- 19 QOL was computed as d×c=0.193×0.297=0.057. Both indirect pathways were statistically significant, which confirms that each mediator independently transmits the effect of LMX on well- being. Because there is no causal link specified between workload justice and COVID- 19 QOL, these effects are considered **parallel mediators** (Hayes, 2022) . Combining the two indirect pathways yields a total indirect effect of **0. 329**, while the direct effect of LMX on well-being remained significant (f= 0. 339, p<0.01), indicating a **partial parallel mediation**.

Discussion and Implications

This study investigated the effects of leader–member exchange (LMX) on lecturer well-being in Thai Rajabhat universities, with workload justice, online teaching satisfaction, and COVID-19 quality of life (QOL) specified as mediators. The results indicate that LMX is a significant positive predictor of workload justice, online teaching satisfaction, and well-being, underscoring the central role of leadership quality in shaping faculty experiences (Graen & Uhl-Bien, 1995; Greguras & Ford, 2006). Workload justice emerged as a key factor, significantly influencing both online teaching satisfaction and lecturer well-being—consistent with prior work that identifies fairness perceptions as essential for satisfaction and health (Colquitt, 2001; Fujishiro & Heaney, 2009; Pace et al., 2021). However, contrary to expectations, the proposed serial mediation pathway through workload justice and online teaching satisfaction was not supported because

online teaching satisfaction did not significantly predict well-being. These findings suggest that earlier assumptions—that satisfaction with online teaching environments would consistently enhance well-being during crises—may not hold universally.

To address this issue, COVID-19 QOL was included as an additional mediator. The results show that workload justice and COVID-19 QOL operate as parallel mediators, each independently transmitting the effect of LMX to lecturer well-being. This modeling choice is consistent with Hayes (2022), who recommends specifying mediators in parallel when no causal ordering among them is theorized. Whereas workload justice captures fairness in task allocation and evaluation, COVID-19 QOL reflects pandemic-related disruptions—such as health risks, financial stress, and social isolation (Repišti et al., 2020). Together, these findings indicate that effective leadership extends beyond workload management to encompass broader life domains, aligning with evidence that supportive leadership promotes resilience and life satisfaction during crises (Panadero et al., 2022).

Theoretical implications

This study contributes to theory in several ways. First, it extends LMX theory by showing that leadership quality not only enhances fairness and satisfaction but also helps protect faculty well-being during disruptions (Graen & Uhl-Bien, 1995; Martin et al., 2016). Introducing COVID-19 QOL advances LMX research into crisis contexts, demonstrating that leader–member relationships shape both professional and personal aspects of well-being. Second, it refines organizational justice theory by reaffirming the pivotal role of workload fairness in predicting satisfaction and well-being (Colquitt, 2001; Cohen-Charash & Spector, 2001), while also revealing that justice alone does not fully account for well-being—highlighting the value of incorporating broader life-quality factors. Third, the findings support Conservation of Resources (COR) theory (Hobfoll, 1989) by suggesting that high-quality LMX can buffer resource losses through supportive exchanges, thereby maintaining quality of life during crises. They also reinforce Social Exchange Theory (SET) (Blau, 1964; Walumbwa et al., 2011): when leaders show care beyond workplace boundaries, faculty reciprocate with trust, resilience, and commitment. Finally, the study advances methodology by using a composite-based SEM approach, which captures the multidimensional nature of justice, satisfaction, and quality of life more effectively than purely reflective models, thereby improving the rigor of mediation testing in complex organizational settings (Hair et al., 2019; Hubona et al., 2021).

Practical implications for HR

The findings have several implications for human resource management in higher education. First, universities should strengthen LMX relationships by fostering trust and maintaining open, consistent communication. Regular dialogues, mentoring programs, and informal touchpoints between administrators and faculty can cultivate mutual respect and psychological safety (Northouse, 2013). Second, the strong mediating role of workload justice underscores the need for transparent workload policies. HR units should ensure fair distribution of teaching, research, and service responsibilities and involve faculty in decision-making processes; such mechanisms reduce conflict, increase satisfaction, and promote well-being (Colquitt et al., 2013; Pace et al., 2021). Third, the salience of COVID-19 QOL highlights the importance of leadership actions that enhance life quality beyond academic management. Health and wellness initiatives, counseling services, targeted financial supports, and flexible work arrangements can mitigate crisis-related stressors and protect faculty resilience (Panadero et al., 2022; Viac & Fraser, 2020). Ultimately, capacity-building programs are essential: department-head training should emphasize equitable workload management and crisis-sensitive leadership, while faculty development should help staff balance professional duties with personal well-being. Implemented together, these practices can sustain well-being and strengthen institutional performance in Thai higher education.

Limitations and future research

Several limitations should be acknowledged. First, the sampling frame—Rajabhat universities in Bangkok and nearby areas—may constrain generalizability. Future studies should include a broader range of higher-education settings across Thailand and Southeast Asia to enhance external validity. Second, the

cross-sectional design limits causal inference; longitudinal and mixed-methods approaches would better capture dynamic changes in well-being and life quality over time (Cook & Campbell, 1979; Podsakoff et al., 2012). Third, although COVID-19 QOL was included as a mediator using six items adapted from Repišti et al. (2020), future research should validate culturally specific scales and examine additional mediators— such as resilience, psychological empowerment, or organizational commitment (Spreitzer, 1995; Panadero et al., 2022)—as well as moderators (e.g., leadership style, institutional culture, digital readiness). Finally, results derived from composite-based SEM may differ from those obtained with reflective SEM. Subsequent work could compare findings using alternative methods, such as fsQCA or PLS-Predict, to test robustness and predictive validity (Hair et al., 2019; Yu et al., 2021).

Conclusion

This study examined how LMX relates to faculty well-being in Thai Rajabhat universities, incorporating workload justice, online teaching satisfaction, and COVID-19 QOL as mediators. The findings confirm that LMX significantly predicts workload justice, satisfaction, and well-being, but do not support serial mediation via workload justice and online teaching satisfaction. Instead, workload justice and COVID-19 QOL function as parallel mediators, offering distinct pathways through which leadership enhances well-being. The study's novelty lies in integrating COVID-19 QOL into the LMX framework, emphasizing that leadership effectiveness during crises depends on organizational fairness and broader life quality. Methodologically, composite-based SEM strengthens the modeling of complex relationships; practically, the results provide actionable strategies for HR and university leaders to promote fairness, trust, and resilience in post-pandemic higher education.

Declaration of generative AI in scientific writing

During the preparation of this work, the authors used Claude (Anthropic) for language editing to refine and improve the readability of selected sections of the manuscript. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the accuracy and integrity of the publication.

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References

Aggarwal, A., Chand, P. K., Jhamb, D., & Mittal, A. (2020). Leader–member exchange, work engagement, and psychological withdrawal behavior: the mediating role of psychological empowerment. *Frontiers in Psychology*, *11*, 423.

Andersen, I., Buch, R., & Kuvaas, B. (2020). A literature review of social and economic leader–member exchange. *Frontiers in psychology*, *11*, 1474.

Arneson, R. (2019). *Individual Well-Being and Social Justice. Presidential Address delivered at the ninety-third Pacific Division meeting of the American Philosophical Association in Vancouver, British Columbia, Canada*. Retrieved from http://philosophyfaculty.ucsd.edu/faculty/rarneson/documents/writings/individual-well-being.pdf

Benitez, J., Henseler, J., Castillo, A., & Schuberth, F. (2020). How to perform and report an impactful analysis using partial least squares: Guidelines for confirmatory and explanatory IS research. *Information & Management*, *57*(2), 103168.

Blau, P. M. (1964). *Exchange and power in social life*. New York, USA: John Wiley & Sons.

Bozkurt, A., & Sharma, R. C. (2020). Emergency remote teaching in a time of global crisis due to the Coronavirus pandemic. *Asian Journal of Distance Education*, *15*(1), i-vi.

Civil Service Commission in Higher Education Institutions. (2010). *Criteria and Methods for Evaluation of Civil Service Performance in Higher Education Institutions B.E. 2553*.

http://www.ratchakitcha.soc.go.th/DATA/PDF/2558/D/082/65.PDF

Civil Service Commission in Higher Education Institutions. (2015). Academic Workload Standards for Teachers, Assistant Professor, Associate Professor, and Professor B.E. 2558. http://www.udru.ac.th/udrucouncil/images/document/04ge/02_kor-por-or/01prakad/01-1koporor10/27-2553.pdf

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd eds.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Cohen-Charash, Y., & Spector, P. E. (2001). The role of justice in organizations: A meta-analysis. *Organizational behavior and human decision processes*, *86*(2), 278-321.

Colquitt, J.A. (2001). On the dimensionality of organizational justice: a construct validation of a measure. *Journal Applied Psychology*, *86*(3), 386

Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O., & Ng, K. Y. (2013). Justice at the millennium, a decade later: A meta-analytic test of social exchange and affect-based perspectives. *Journal of Applied Psychology*, *98*(2), 199-236.

Cook T.D. & Campbell D.T. (1979). *Quasi-Experimentation: Design and Analysis Issues for Field Settings*. Dallas, Ill.: Houghton Mifflin.

Cook, C., Heath, F., & Thompson, R. L. (2000). A meta-analysis of response rates in web or internet-based surveys. *Educational and Psychological Measurement*, *60*(6), 821-836.

de Lourdes Machado, M., Soares, V. M., Brites, R., Ferreira, J. B., & Gouveia, O. M. R. (2011). A look to academics job satisfaction and motivation in Portuguese higher education institutions. *Procedia-Social and Behavioral Sciences*, *29*, 1715-1724.

Dhawan, S. (2020). Online learning: A panacea in the time of the COVID-19 crisis. *Journal of Educational Technology Systems*, *49*(1), 5-22.

Dijkstra, T. K., & Henseler, J. (2015a). Consistent and asymptotically normal PLS estimators for linear structural equations. *Computational statistics & data analysis*, *81*, 10-23.

Dijkstra, T. K., & Henseler, J. (2015b). Consistent partial least squares path modeling. *MIS Quarterly*, *39*(2), 297-316.

Duckworth, A. L., Quinn, P. D., & Seligman, M. E. (2009). Positive predictors of teacher effectiveness. *The Journal of Positive Psychology*, *4*(6), 540-547.

Elshami, W., Taha, M. H., Abuzaid, M., Saravanan, C., Al Kawas, S., & Abdalla, M. E. (2021). Satisfaction with online learning in the new normal: perspective of students and faculty at medical and health sciences colleges. *Medical Education Online*, *26*(1), 1920090.

Erdogan, B. (2002). Antecedents and consequences of justice perceptions in performance appraisals. *Human resource management review*, *12*(4), 555-578.

Erskine, J. A., Georgiou, G. J., Joshi, M., Deans, A., & Colegate, C. (2017). Ageing and thought suppression performance: Its relationship with working memory capacity, habitual thought suppression and mindfulness. *Consciousness and cognition*, *53*, 211-221.

Erskine, J. A. K., & Georgiou, G. (2018). Leadership styles: Employee stress, well-being, productivity, turnover and absenteeism. *Underst. Stress Work*, 28-40

Fujishiro, K., & Heaney, C. A. (2009). Justice at work, job stress, and employee health. *Health Education & Behavior*, *36*(3), 487-504.

Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The leadership quarterly*, *6*(2), 219-247.

Greguras, G. J., & Ford, J. M. (2006). An examination of the multidimensionality of supervisor and subordinate perceptions of leader-member exchange. *Journal of Occupational and Organizational Psychology*, *79*(3), 433-465.

Greenberg, J. (1990). Organizational justice: Yesterday, today, and tomorrow. *Journal of Management*, *16*(2), 399-432.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th eds.). NJ: Prentice Hall

Hascher, T., & Waber, J. (2021). Teacher well-being: A systematic review of the research literature

from the year 2000-2019. *Educational Research Review*, *34*, 100411.

Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (3rd eds.). New York, USA: Guilford Press.

Hee, O. C., Shi, C. H., Kowang, T. O., Fei, G. C., & Ping, L. L. (2020). Factors Influencing Job Satisfaction among Academic Staffs. *International Journal of Evaluation and Research in Education*, *9*(2), 285-291.

Henseler, J., & Dijkstra, T. K. (2015). *ADANCO 2.0. Kleve: Composite modeling.* Retrieved from http://www. compositemodeling.co

Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W., Ketchen, D. J., Hair, J. F., Hult, G. T. M., & Calantone, R. J. (2014). Common beliefs and reality about partial least squares: comments on Rönkkö & Evermann (2013). *Organizational Research Methods*, *17*(2), 182-209.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, *44*(3), 513-524.

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. *Educause Review*, *27*, 1-12.

Hooper, D. T., & Martin, R. (2008). Beyond personal leader-member exchange (LMX) quality: The effects of perceived LMX variability on employee reactions. *The Leadership Quarterly*, *19*(1), 20-30.

Houston, D., Meyer, L. H., & Paewai, S. (2006). Academic staff workloads and job satisfaction: Expectations and values in academe. *Journal of Higher Education Policy and Management*, *28*(1), 17-30.

Hubona, G. S., Schuberth, F., & Henseler, J. (2021). A clarification of confirmatory composite analysis (CCA). *International Journal of Information Management*, *61*, 102399.

Huong, L., Zheng, C., & Fujimoto, Y. (2016). Inclusion, organisational justice and employee well-being. *International Journal of Manpower*, *37*(6), 945-964.

Ionescu, A. F., & Iliescu, D. (2021). LMX, organizational justice and performance: curvilinear relationships. *Journal of Managerial Psychology. 36*(2), 197-211.

Ilies, R., Morgeson, F. P., & Nahrgang, J. D. (2005). Authentic leadership and eudaemonic well-being: Understanding leader–follower outcomes. *The Leadership Quarterly*, *16*(3), 373-394.

Jarab, F., Al-Qerem, W., Jarab, A. S., & Banyhani, M. (2022). Faculties' satisfaction with distance education during COVID-19 outbreak in Jordan. In *Frontiers in Education*, *22*(7), 789849.

Jhantasana, C. (2022). Intrinsic and Extrinsic Motivation for University Staff Satisfaction: Confirmatory Composite Analysis and Confirmatory Factor Analysis. *Asia Social Issues*, *15*(2), 249810.

Jones, C., Hadley, F., Waniganayake, M., & Johnstone, M. (2019). Find your tribe! Early childhood educators defining and identifying key factors that support their workplace wellbeing. *Australasian Journal of Early Childhood*, 44(4), 326-338.

Jiang, S., Lambert, E. G., Liu, J., Kelley, T. M., & Zhang, J. (2018). Effects of work environment variables on Chinese prison staff organizational commitment. *Australian & New Zealand Journal of Criminology*, *51*(2), 275-292.

Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction-job performance relationship: A qualitative and quantitative review. *Psychological bulletin*, *127*(3), 376.

Kidger, J., Brockman, R., Tilling, K., Campbell, R., Ford, T., Araya, R., & Gunnell, D. (2016). Teachers' wellbeing and depressive symptoms, and associated risk factors: A large cross-sectional study in English secondary schools. *Journal of Affective Disorders*, *192*, 76-82.

Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration*, *11*(4), 1-10.

Kopperud, K. H., Buch, R., & Skogen, C. (2021). Work overload and leader–member exchange: The moderating role of psychological flexibility. *Journal of General Management*, *46*(3), 173-184.

Kumar, M., & Singh, S. (2011). Leader-Member Exchange & Perceived Organizational Justice—An Empirical Investigation. *Indian Journal of Industrial Relations*, 277-289.

Laschinger, H. K. S., Finegan, J., & Wilk, P. (2009). Context matters: The impact of unit leadership and empowerment on nurses' organizational commitment. *The Journal of Nursing Administration*, *39*(5), 228-235.

Lau, J. T. F., Kim, J. H., & Tsui, H. Y. (2005). Prevalence of male and female sexual problems, perceptions related to sex and association with quality of life in a Chinese population: a population-based study. *International Journal of Impotence Research*, *17*(6), 494-505.

Le, H., Jiang, Z., Fujimoto, Y., & Nielsen, I. (2018). Inclusion and affective well-being: Roles of justice perceptions. *Personnel Review*, *47*(4), 805-820.

Le, H., Jiang, Z., & Nielsen, I. (2020). Leader–member exchange and follower outcomes: The moderating role of work meaning. *Leadership & Organization Development Journal*, *41*(6), 789-802.

Lepp, M., & Luik, P. (2021). Challenges and Positives Caused by Changing Roles during Emergency Remote Education in Estonia as Revealed by Facebook Messages. *Social Sciences*, *10*(10), 364.

Li, M., & Yu, Z. (2022). Teachers' Satisfaction, Role, and Digital Literacy during the COVID-19 Pandemic. *Sustainability*, *14*(3), 1121.

MacKinnon, D. P., & Dwyer, J. H. (1993). Estimating mediated effects in prevention studies. *Evaluation Review*, *17*(2), 144-158.

Mackinnon, D. P. (2008). *Introduction to Statistical Mediation Analysis*. Taylor &Francis Group LLC. *International standard book, (978–0)*, 8058-3974.

Martin, R., Guillaume, Y., Thomas, G., Lee, A., & Epitropaki, O. (2016). Leader–member exchange (LMX) and performance: A meta-analytic review. *Personnel Psychology*, *69*(1), 67-121.

Mgaiwa, S. J. (2021). Academics' job satisfaction in Tanzania's higher education: The role of perceived work environment. *Social Sciences & Humanities Open*, *4*(1), 100143.

Misirli, O., & Ergulec, F. (2021). Emergency remote teaching during the COVID-19 pandemic: Parents' experiences and perspectives. *Education and Information Technologies*, *26*(6), 6699-6718.

Northouse, P.G. (2013). *Leadership: Theory and practice* (6th eds). Los Angeles, California: Sage Publishing.

Pace, F., D'Urso, G., Zappulla, C., & Pace, U. (2021). The relation between workload and personal well-being among university professors. *Current Psychology*, *40*(7), 3417-3424.

Panadero, E., Fraile, J., Pinedo, L., Rodríguez-Hernández, C., Balerdi, E., & Díez, F. (2022). Teachers' Well-Being, Emotions, and Motivation During Emergency Remote Teaching Due to COVID-19. *Frontiers in Psychology*, *13*, 826828.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, *63*(1), 539-569.

Power, R. L. (2013). Leader-member exchange theory in higher and distance education. *International Review of Research in Open and Distributed Learning*, *14*(4), 277-284.

Qi J., Zhang K., Fu X., Zhao X., Wang L. (2019). The effects of leader–member exchange, internal social capital, and thriving on job crafting. *Social Behavior and Personality*, *47*(6), e7981.

Renshaw, T. L., Long, A. C., & Cook, C. R. (2015). Assessing teachers' positive psychological functioning at work: Development and validation of the Teacher Subjective Wellbeing Questionnaire. *School Psychology Quarterly*, *30*(2), 289-306.

Repišti, S., Jovanović, N., Kuzman, M., Medved, S., Jerotić, S., Ribić, E., Majstorović, T., Markovska Simoska, S., Novotni, L., Milosh Milutinovic, M., Blazevska Stoilkovska, B., Radojičić, T., Ristić, I., Zebić, M., Pemovska, T., & Russo, M. (2020). *How to measure the impact of the COVID-19 pandemic on quality of life: COV19-QoL – the development, reliability and validity of a new scale. Global Psychiatry*, *3*(2), 1-10

Scandura, T. A., Graen, G. B., & Novak, M. A. (1986). When managers decide not to decide autocratically: An investigation of leader–

member exchange and decision influence. *Journal of Applied Psychology*, *71*(4), 579.

Schriesheim, C. A., Castro, S. L., & Cogliser, C. C. (1999). Leader-member exchange (LMX) research: A comprehensive review of theory, measurement, and data-analytic practices. *The Leadership Quarterly*, *10*(1), 63-113.

Seligman, M. E. (2012). *Flourish: A visionary new understanding of happiness and well-being*. Sydney, Australia: Simon and Schuster.

Sironi, E. (2019). Job satisfaction as a determinant of employees' optimal well-being in an instrumental variable approach. *Quality & Quantity*, *53*(4), 1721-1742.

Soper, D.S. (2022). *A-priori sample size calculator for structural equation models* [Software]. https://www.danielsoper.com/statcalc

Sparr, J. L., & Sonnentag, S. (2008). Fairness perceptions of supervisor feedback, LMX, and employee well-being at work. *European Journal of Work and Organizational Psychology*, *17*(2), 198-225.

Sparrowe, R. T. (1994). Empowerment in the hospitality industry: an exploration of antecedents and outcomes. *Hospitality Research Journal, 17*(3), 51-73.

Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal, 38*(5), 1442-1465.

Stringer, L. (2006). The link between the quality of the supervisor–employee relationship and the level of the employee's job satisfaction. *Public Organization Review*, *6*(2), 125-142.

Taylor, A. B., MacKinnon, D. P., & Tein, J. Y. (2007). Standard error of the three-path mediated effect. *Organizational Research Methods*, *11*, 384-389.

Tofighi, D., & Kelley, K. (2020). Indirect effects in sequential mediation models: Evaluating methods for hypothesis testing and confidence interval formation. *Multivariate Behavioral Research*, *55*(2), 188–210.

Viac, C. & Fraser,P. (2020). *Teachers' well-being: A framework for data collection and analysis. OECD Education* (Working Papers 213). Paris, France: OECD Publishing.

Walumbwa, F. O., Cropanzano, R., & Goldman, B. M. (2011). How leader–member exchange influences effective work behaviors: Social exchange and internal–external efficacy perspectives. *Personnel Psychology*, *64*(3), 739-770.

Wigford, A., & Higgins, A. (2019). Wellbeing in international schools: Teachers' perceptions. *Educational and Child Psychology, 36*(4), 46-103.

Wood, S., Michaelides, G., & Totterdell, P. (2013). The impact of fluctuating workloads on well-being and the mediating role of work-nonwork interference in this relationship. *Journal of Occupational Health Psychology*, *18*(1), 106-119.

Worrell, T. G., Skaggs, G. E., & Brown, M. B. (2006). School psychologists' job satisfaction: A 22-year perspective in the USA. *School Psychology International*, *27*(2), 131-145.

Yu, X., Zaza, S., Schuberth, F., & Henseler, J. (2021). Counterpoint: Representing forged concepts as emergent variables using composite-based structural equation modeling. *ACM SIGMIS Database: the DATABASE for Advances in Information Systems*, *52*(SI), 114-130.