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Exploring the Impacts of Online Chat on Well-Being and Job Engagement in a Higher Education Work Environment

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Abstract

Despite extensive research into the impacts of digital communication on well-being and job engagement, the specific effects of online chatting within these domains have been less explored, particularly in the context of Thailand's higher education sector. This quantitative study investigates the implications of online chatting on well-being and job engagement among 126 university lecturers in Thailand, with a demographic breakdown of 61.9% female and 37.3% male participants. Utilizing Partial Least Squares Structural Equation Modeling (PLS-SEM), the research examines three hypotheses: the impact of online chat on well-being (H1), online chat on job engagement (H2), and well-being on job engagement (H3). The findings reveal a significant negative impact of online chat on well-being ($\beta = -0.236$, $p = 0.003$), while the relationship between online chat and job engagement was not supported ($\beta = -0.047$, $p = 0.642$). Conversely, a strong positive relationship was observed between well-being and job engagement ($\beta = 0.609$, $p < 0.001$), underscoring well-being as a significant mediator between online chat and job engagement. These results highlight the nuanced role of online chat in the academic work environment, suggesting that while it may pose challenges to well-being, it also has the potential to indirectly enhance job engagement through improved well-being. The study's focus on a specific academic context and its reliance on self-reported data suggest caution in generalizing the findings, pointing to avenues for future research in broader demographic and occupational settings.

Introduction

In the era of digitalization, online communication platforms have become essential in both personal and professional spheres, significantly influencing the way we interact and collaborate. The advent of digital technology has facilitated a more efficient exchange of ideas, transforming communication methodologies and institutional culture (Rizvanović et al., 2023). This transformation has been particularly pronounced in the wake of the COVID-19 pandemic, which has necessitated a shift towards remote working and, consequently, a reliance on digital communication platforms (Zhong et al., 2022).

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Despite the extensive exploration of employee well-being and job engagement in existing literature, there is a noticeable gap in research specifically addressing the impacts of online chatting on these critical aspects within the higher education work environment in Thailand.

This study aims to fill this gap by examining the influence of digital chat groups on the well-being and job engagement of university lecturers in Thailand. It seeks to understand how these digital interactions affect lecturers' professional performance and personal satisfaction, contributing to the broader discourse on digital communication's role in the workplace. The hypotheses are H1: Online chat has a negative impact on well-being, H2: Online chat has a negative impact on job engagement, and H3: Well-being has a positive impact on job engagement.

The relationship between an individual's well-being and their professional performance is crucial, as it directly influences their ability to fulfill work responsibilities effectively. Positive internal emotional states, such as optimism and a sense of intrinsic worth in one's tasks, are known to enhance well-being and, by extension, job engagement (Kun & Gadanecz, 2022; Alagaraja, 2020). However, challenges such as unclear communication can destabilize this relationship, impacting employee well-being negatively (Sulphey, 2023; Kundi et al., 2021). By investigating the specified hypotheses, this study will provide insights essential for designing effective job architectures and organizational policies that support healthy digital communication practices, thereby fostering a conducive work environment for enhanced job engagement and well-being.

Objectives

Thus, this study aims to explore the relationships among online chatting, well-being, and job engagement. Three hypotheses were formed as follows: firstly, online chatting exerts a negative influence on well-being; secondly, online chatting adversely affects job engagement; and lastly, well-being fosters a positive impact on job engagement.

Analysing the effects of contemporary communication methodologies on employee well-being and engagement can generate insights that are pivotal in designing efficacious job architectures and organizational policies pertaining to online communication. Moreover, it could offer valuable guidance for boosting job engagement and cultivating superior health practices within the professional environment.

Literature Review and Hypotheses Development

Digital communication platforms, specifically online chats, have gained significant prominence in the contemporary digital landscape. This upsurge in the utilization of such communicative utilities signifies a paradigm shift in collective work dynamics, intensifying the focus on task evaluation within the ambit of team-based assignments (Hanssen, & Sundström, 2022). Online chat groups allow each employee to participate in discussions and share work-related information during off-duty periods through mobile devices such as smartphones and laptops. In the context of our globally connected society, these technologies bridge the distance between individuals, enabling remote operations, instantaneous access to information, and adaptable response capabilities irrespective of the environmental context. As such, the utilization of these portable devices for connectivity purposes provides undeniable advantages to both individuals and the larger professional community (Abeele et al., 2018). This literature review can lead to a better understanding of the impact of online chatting on both well-being and job engagement.

Online Chat

Information and Communication Technology (ICT), as delineated by UNESCO (2022), comprises a varied assortment of technical apparatus and resources that facilitate the transmission, storage, creation, dissemination, or exchange of information. The evolution of ICT has precipitated an upswing in scholarly inquiries probing its ramifications on workers' lives. It has been observed that digital communication channels (i.e., online chat), when used for professional purposes beyond standard working hours, may engender disruptions in home life, potentially escalating work-life conflicts, undermining work-life equilibrium, or paradoxically, augmenting work-life value (Santos et al., 2023). Concurrently, employees' perceptions regarding the use of ICT during non-working hours have evolved in tandem with technological advancements (Adisa et al., 2023; Ninaus et al., 2021; Khalid et al., 2021). This trend has become a ubiquitous organizational practice, particularly manifest in group messaging via mobile devices. Such interactions, however, have definitive parameters and intended applications. The confluence of group chats with real-life connectivity and their inherently multifaceted nature signify that these platforms

extend beyond dyadic communication and could present communicative lacunae (Mannell, 2020). In this research, the types of online chat platforms examined include mainstream social media messengers, dedicated workplace communication tools, and informal group messaging applications, reflecting a broad spectrum of digital interaction in the professional context. Currently, the trend of group chatting is beneficial in terms of convenience, accessibility, and delivery of learning, while the disadvantages are a balance between work and life, emotional, and technical aspects, open communication, delicate communication, social behavioural etiquette, and reliance on technology as a form of organizational culture resulting from the use of group chatting (Salazar, 2022). These inquiries afford valuable insights, enabling a comprehensive evaluation of the implications of ICT on the professional and personal lives of employees.

Well-Being

Well-being represents an integrative state wherein individuals experience physical and psychological health, derive satisfaction from life and work, and appreciate joy in their relationships and community involvement. Numerous studies have embarked on elucidating factors influencing well-being, such as the correlation between personality, culture, and life contentment, positing emotional and cognitive satisfaction as crucial facets of well-being (Malvaso, & Kang, 2022). In psychology, the structural analysis of psychological well-being indicates that well-being is a multidimensional construct, encompassing elements such as a sense of solidarity, self-comprehension, nurturing positive relationships, and perceiving life as meaningful (Liu, Zhou & Bai, 2022). In contrast, research and clinical practice in management and psychology, committed to studying and fostering well-being, underline the significance of life's pleasure and enjoyment (Schoofs et al., 2022). They encompass the principles of relationship contentment (Hedonia) and spiritual satisfaction (Eudaimonia), concluding that the confluence of these forms of satisfaction contributes to overall well-being (Giles et al., 2020).

Well-being is construed as a healthy physical and mental state conducive to the achievement of life objectives. This study integrates key indicators of well-being, namely: 1) Work-Life Balance, the harmonious coexistence of professional requirements and personal life demands that can be negotiated without engendering conflict (Reverberi et al., 2022). 2) Emotional Condition, an individual's capacity to discern, comprehend, and manage their emotions, incorporating self-awareness, emotional regulation, and emotional intelligence (Peña-Sarrionandia et al., 2015). 3) Family Happiness, a characteristic of overarching well-being, constitutes a positive emotional state within the family context, associated with affection, satisfaction, and harmony among family members (Chaknum et al., 2023).

Job Engagement

Job engagement epitomizes the conscientious effort and dedication deployed to excel in one's professional tasks. Employees demonstrating high job engagement are generally predisposed to derive enjoyment from their work and produce good results. A review of the literature on job engagement and workplace learning reveals the predominance of the Job Demands-Resources (JD-R) model. This model bifurcates work-related aspects into demands and resources, exerting a favourable impact on employee job engagement (Mazzetti et al., 2023). Manifest variables of job engagement are associated with organizational results, such as heightened customer satisfaction and enhanced employee performance (Albrecht et al., 2023). Robust correlations have been observed between employee satisfaction, job engagement, and stellar business outcomes (Rajapaksha, & Tilakasiri, 2020). Job performance is one such variable intrinsically linked to job engagement (Yao et al., 2022). A nuanced understanding of job engagement encompasses several components, including an inclination to work, relationships with supervisors, and support for career advancement (Walden et al., 2017).

Job engagement facilitates a sense of satisfaction in employees' work, motivates them to commit wholeheartedly to their professional duties, engenders responsibility for personal development, and enhances performance. This study synthesizes elements that can serve as indicators facilitating job engagement, specifically: 1) Workplace Relationships-these encapsulate the interpersonal dynamics transpiring within the workplace milieu, encompassing relationships between colleagues or between supervisors and subordinates. These relationships stem from communication, collaborative efforts, and social bonding (Almost et al., 2015). 2) Career Development-it signifies the process through which individuals strategize their activities and progression in their current roles, aiming for personal growth and financial stability (Shaito, 2019). 3) Organizational Support-this refers to the perceived

value of employee contributions by the organization, caring for their well-being, and providing them with support in their professional growth and development (Aldabbas et al. 2023).

Online Chat and Well-Being

Participation in digital communication and online interactions within a professional context elicits both positive and negative effects on individual well-being. These interactions furnish avenues for relaxation, stress mitigation, and social support, while concurrently, they may encroach upon personal time and impinge upon life satisfaction. Scholarly inquiries have investigated the influence of online social interactions on employee well-being, revealing that involvement in online discussion groups, social media communities, or support networks outside the professional realm is associated with enhanced levels of well-being (Alalwan, 2022). High-quality virtual interactions beyond the workplace, comprising conversations with friends, family, or group members, are correlated with increased positive emotions, elevated self-esteem, and overall improved well-being (Lee et al., 2021).

Nonetheless, perceived information overload is identified as a substantial progenitor of depressive symptoms, adversely affecting individual well-being over time (Matthes et al., 2020). Despite the considerable advantages gleaned from mobile connections, individuals also grapple with challenges, including interference with social activities (McDaniel & Drouin, 2019), distractions impeding work and academic pursuits (Duke & Montag, 2017), procrastination (Schnauber-Stockmann, Meier, & Reinecke, 2018), sleep and health disorders (Lanaj et al., 2014), and eliciting negative emotions such as emotional exhaustion and anxiety (Büchi et al, 2019). Although digital communication significantly impacts employee behavioural outcomes, emotional responses serve as conduits transmitting stress to employee behavioural outcomes, particularly job burnout and organizational self-esteem, thus acting as intermediary stress transmission mechanisms (Wong et al., 2023). Online group communication may bear negative implications, even during personal time, such as inducing anxiety and disrupting personal time. However, it is imperative to weigh the suitability of these interactions. Hence, this research posits the following hypothesis:

Hypothesis 1: Online chat has a negative impact on well-being.

Online Chat and Job Engagement

The intersection between online chat groups and job engagement has been the focal point of numerous scholarly investigations. For instance, overworking can deteriorate the mental health of office workers, even when personal variables are controlled. Moreover, working on weekends negatively affects mental health (Sato et al., 2020). The increasing acceptance of communication devices is raising concerns about the potential negative impacts on work that may result from constant connectivity (Beer, & Mulder, 2020). Employees are increasingly expected to be online and connected regarding work continuously (Vorderer et al., 2017), leading to a state referred to as 'always online' (Nguyen, 2021). The study of the relationship between online social anxiety and perceived information overload in the use of the LINE application found that online social anxiety, perceived information overload, and fatigue impact the job engagement of employees using online communication (Hwang et al., 2020). In business terms, a higher level of information disclosure is positively associated with the closeness of content; meaning that when there is an exchange of disclosed information in online chat groups, stronger closeness among group members is created (Feng et al , 2021). Regarding job security, the use of social media has significant effects on job satisfaction and employees' intentions to quit (Zhang et al., 2019). The use of online chat groups may affect individual job engagement. It is crucial to consider the appropriate nature of this relationship. Therefore, this research has developed the following hypothesis:

Hypothesis 2: Online chat has a negative impact on job engagement.

Well-Being and Job Engagement

Workplace well-being embodies every facet of professional life. This encompasses the quality and safety of the physical environment, employee sentiments towards their responsibilities, working conditions, interpersonal atmosphere, and overall perceptions of the organization (International Labour Organization, 2021). In recent years, the concept of well-being has increasingly gained prominence. This trend has been driven by transformations in organizational structures and intensifying work demands, which often blur the boundaries between professional and personal lives. However, there remains a subset of the workforce operating in the informal sector or under precarious circumstances. They often endure extensive working hours in suboptimal conditions merely to meet their basic necessities. These circumstances severely impinge

on their health and work-life equilibrium (International Trade Union Confederation, 2018). Studies on the impacts of empowering management on mental health and job engagement with the importance of psychological resource mediation found that empowering management has a positive effect on mental health and job engagement, with psychological resource mediation playing a significant role in driving such impacts (Park et al., 2017). Confidence in the organization and work systems requiring high engagement may affect employee well-being, but job insecurity has no relation to employee well-being (Satria & Kustiawan, 2023). Currently, the widespread adoption of remote work has demonstrated a generally positive influence on motivation and well-being. This flexible work arrangement allows for improved work-life balance due to reduced commute time and increased opportunities for rest (Oksanen, 2023). When employees are fully engaged in their work, it may consequently enhance their overall well-being, and this interrelation should be adequately considered. Thus, the study postulates the following hypothesis:

Hypothesis 3: Well-being has a positive impact on job engagement.

The systematic literature review pertaining to the influence of online chat on well-being and job engagement postulates the hypothesis and interconnections among these variables within the scope of the research's conceptual framework (Figure 1). This framework delineates the conjectured interrelationships, forming the basis for the empirical exploration of these associations. Consequently, this process facilitates a deeper comprehension of the ways in which online chat dynamics potentially impact well-being and job engagement dynamics, thereby contributing to the enrichment of the knowledge corpus in this domain.

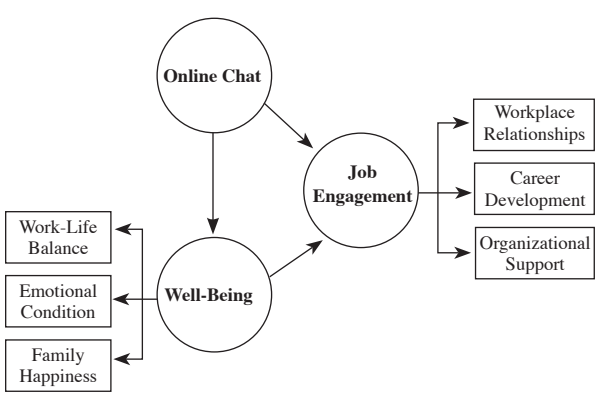

Figure 1 Research Conceptual Framework

Research Methodology

Research Design, Context, and Participant

This study utilized a quantitative research design involving working-age population, specifically focusing on faculty members at Rajabhat University in Southern Thailand. It aimed to provide comprehensive insights into the influence of online chat on well-being and job engagement within this specific context. Rajabhat University, a distinguished Thai institution, offers an array of academic programs, making it an ideal setting for this research. The examination of this faculty group carries significant implications for several reasons:

• Representation: Faculty members of Rajabhat University symbolize the working-age demographic in the southern region of Thailand. This group offers an opportunity to investigate the effects of online chat on well-being and job engagement within a population sample that is both relevant and representative.

• Professional Context: While teaching forms the core responsibility of Rajabhat University's faculty, other duties such as research, academic services, and assorted assigned tasks can contribute to a workload surplus. Analysing the effects of online chat within this context can yield profound insights into how this form of communication impacts diverse work aspects, thereby influencing well-being and job engagement.

• Organizational Context: As an educational establishment, Rajabhat University frequently incorporates online chats for work-related discussions and task coordination. Investigating the impact of online chat on well-being and job engagement within this setting can elucidate how technological utilization in an educational milieu influences these vital psychological facets.

• Practical Significance: Discerning the challenges related to the use of online chat by Rajabhat University's faculty can identify critical areas of concern. This understanding is instrumental in devising targeted strategies to promote healthy digital communication practices, enhance well-being, and cultivate job engagement within this population cohort.

Hence, the population for this study comprised lecturers from Rajabhat University located in the southern region. The data was obtained through online methods, specifically by distributing questionnaires to lecturers at Rajabhat University in the southern region, as well as by contacting individuals who were informed about the research via telephone. The questionnaire included concise definitions for each variable to enhance clarity. The validation of sample sizes was conducted

using two methods, namely the inverse square root method and the gamma-exponential method (Kock & Hadaya, 2018). The objective was to achieve a statistical power of 80 percent with a significance level of 0.05. The minimum sample sizes required for the minimum R-squared method were 110. Hence, the collection of 126 questionnaires proved to be adequate for the purposes of this study. The presence of nonresponse bias was assessed by conducting a comparison between the initial 30 data sets and the final ones, revealing no statistically significant disparities. This suggests that the data collected was not affected by nonresponse bias. Table 1 displays the characteristics of the sample.

To address the feedback for enhancing the generalizability of the research results, the study carefully determined the population size to ensure it accurately reflects the broader demographic context of Rajabhat University's faculty. Additionally, the sampling method was meticulously specified to enhance clarity and reliability of the research findings, employing a combination of convenience sampling and targeted outreach to ensure a representative sample of the faculty was achieved.

Research Instrument

The development of the questionnaire involved a comprehensive examination of relevant literature and a rigorous analysis of content validity conducted by three experts with extensive expertise in the field of innovation management. This process aimed to assess and determine the consistency indices associated with each item included in the questionnaire. The questionnaire comprised four sections: demographic details of the participants, a subset of queries related to online chat (encompassing 6 items), an appraisal of well-being (comprising 6 items), and an evaluation of job engagement (including 6 items). The model structure was measured utilizing a five-point Likert scale, with 1 indicating the minimum value and 5 signifying the maximum value.

Following the establishment of the questionnaire's reliability and validity through a pilot test, the research instrument was structured to comprehensively measure the constructs of Online Chat, Well-Being, and Job Engagement. Each construct was dissected into component variables, meticulously identified to encapsulate the essence of the constructs under investigation. The subsequent section, detailed in Table 1, delineates the component variables and their corresponding indicators, derived from a thorough review of the literature. This table serves as a cornerstone for the empirical analysis, providing a clear framework for the data collection process and ensuring that each variable is accurately represented in the study. The indicators, as outlined in the table, were selected based on their relevance and potential to yield insightful data

Table 1 Component Variables and Indicators of Online Chat, Well-Being, and Job Engagement.

Variables	Component Variables	Indicators	References
Online Chat		Regular daily use of online chatting	(Awan & Atta, 2023)
		Use of online chatting both during and outside of work hours	(Paerata, 2023)
		Majority of online chat conversations are work-related	(Lal et al., 2023)
		Primarily uses online chatting for personal conversations	(Lew et al., 2018)
		Responds immediately to incoming messages	(Ju & Paek, 2010)
		Concerns about being unable to access online chatting (e.g., due to lack of devices or internet connectivity)	(Baticulon et al., 2021)
Well-Being	Work-Life Balance	Clarity in separating work time and personal time	(Wöhrmann et al., 2021)
		Having sufficient time for non-work-related activities	(Garrick et al., 2018)
	Emotional Condition	Being an individual who sees the world positively and can navigate out of discomfort	(Rhoads & Marsh, 2023)
		Maintaining a healthy lifestyle free from illness	(Sadiq, 2023)
	Family Happiness	Living a happy life with family members, including oneself	(Fernandez-Portero et al., 2023)
		Strong and cooperative relationships among family members	(Franco & Haase, 2012)
Job Engagement	Workplace Relationships	Feeling trusted and confident by colleagues	(Lau et al., 2014)
		Having open and straightforward communication to foster understanding with supervisors	(Men et al., 2022)
	Career Development	Receiving opportunities for additional learning to develop job-specific skills and expertise	(Lee et al., 2014)
		Being encouraged to develop for career advancement	(Setyawati et al., 2022)
	Organizational Support	Feeling that the organization values and supports in all work processes	(Sadaf et al., 2022)
		Having opportunities to receive help from the organization to address work-related problems	(Stephens & Harrison 2022)

regarding the constructs of interest, thereby facilitating a nuanced understanding of the dynamics between online chatting, well-being, and job engagement.

Data Analysis

The data analysis commenced with an assessment of the indicator levels for each variable, leading to the generation of descriptive statistics from the sample cohort. Recognizing the scale's nature, the data scores were categorized into tiers reflective of their average values, namely low (1.01-2.00), medium (2.01-3.00), high (3.01-4.00), and highest (4.01-5.00), acknowledging that the rating scale from 1 to 5 precludes the use of a 0.00-1.00 range for practical interpretations.

In detailing the analysis process, the study first operationalized the constructs by defining clear, measurable indicators for each variable, ensuring that these indicators accurately represented the theoretical concepts under investigation. The Partial Least Squares Structural Equation Modeling (PLS-SEM) approach was then applied to analyze the conceptual model. This phase involved evaluating the model's reflective measurement properties, including indicator loading, internal consistency reliability, convergent validity, and discriminant validity, to ensure the model's accuracy in reflecting the constructs. For the structural model, the analysis focused on collinearity, predictive relevance, and PLSpredict, as outlined by Hair, Risher, Sarstedt, & Ringle (2019), to assess the relationships between constructs and the model's predictive capabilities.

PLS-SEM was chosen for its suitability in exploratory research and its ability to handle complex models with multiple constructs and indirect relationships. This method is particularly apt for this study due to its robustness in handling small sample sizes and its flexibility in assumptions regarding data distribution, making it ideal for analyzing the effects of online chat on well-being and job engagement among university lecturers.

Results

Sample characteristics

As shown in Table 1, the sample was predominantly female, constituting 61.9% of the total (N=126), exceeding the male representation of 37.3%. A marginal 0.8% chose to withhold their gender identity. The age range of 40 to 49 years was the most represented, accounting for 38.1% of the sample, followed by the 30 to 39 years category at 33.3% and the 50 to 59 years group at 27.0%. Participants under 30 and over 60 were scant, with the former category comprising a mere 1.6%, and the latter constituting 0%. Educational qualifications were chiefly at the master's level, representing 61.9% of the participants, while the remaining 38.1% held Doctoral degrees. In terms of professional roles, the lecturers predominated at 61.9%, followed by assistant professors at 33.3%, and associate professors at 4.8%. No participant held a professorial position. Faculty affiliations were most commonly with the Faculty of Management Sciences (29.4%), followed by the Faculty of Education (23.8%), the Faculty of Industrial Science and Technology (19.8%), the Faculty of Nursing (16.7%), and the Faculty of Humanities and Social Sciences (10.3%). In terms of teaching experience, the most substantial segment (40.5%) had a tenure of 5 to 10 years, followed by those with 11 to 15 years of experience (29.4%), and those with 16 years or more (24.6%). Lecturers with less than 5 years of experience accounted for a minor 5.6% of the sample.

Table 2 The characteristic of sample

Characteristics	Frequency	Percentage
Gender		
Male	47	37.3
Female	78	61.9
Non-binary	1	0.8
Age		
Under 30 years old	2	1.6
30 -39 years old	42	33.3
40 – 49 years old	48	38.1
50 – 59 years old	34	27.0
above 60 years old	0	0
Education Level		
Master Degrees	78	61.9
Doctoral Degrees	48	38.1
Academic Rank		
Lecturer	78	61.9
Assistant Professor	42	33.3
Associate Professor	6	4.8
Professor	0	0
Faculty		
Faculty of Education	30	23.8
Faculty of Humanities and Social Sciences	13	10.3
Faculty of Science and Industrial Technology	25	19.8
Faculty of Management Science	37	29.4
Faculty of Nursing	21	16.7
Duration of Being a Teacher		
Less than 5 years	7	5.6
5 – 10 years	51	40.5
11 – 15 years	37	29.4
16 years and above	31	24.6
Total	**126**	**100**

Measurement model

The Partial Least Squares Structural Equation Modelling (PLS-SEM) analysis yielded information on several parameters, including constructs, observable

variables, factor loading, Cronbach's alpha, composite reliability (encompassing rho_A and rho_C), and the average variance extracted (AVE). The acceptable thresholds for these parameters are as follows: Factor loading must be at least 0.707, indicating a significant contribution of the variable to the construct; Cronbach's alpha should be no less than 0.600, suggesting acceptable internal consistency of the items in the construct; rho_A should be 0.700 or higher, demonstrating the satisfactory internal reliability of the construct; composite reliability (CR) should reach or exceed 0.800, indicating good internal consistency and reliability of the construct; and AVE should be no less than 0.500, demonstrating that, on average, the construct explains at least 50% of the variance of its indicators.

The results revealed that the construct 'Online Chat' exhibited a factor loading of 1.000, signifying a robust correlation with its observable variable. The construct 'Well-Being', encapsulating three observable variables: 'Work-Life Balance', 'Emotional Condition', and 'Family Happiness', displayed factor loadings of no less than 0.816. This value surpasses the benchmark established by Carmines and Zeller (1979), demonstrating substantial individual contributions to the construct. The measures of reliability, involving Cronbach's alpha, rho_A, and CR, all exceeded the threshold values put forth by Hair et al. (2010), Hair et al. (2017), and Dijkstra and Henseler (2015). With an AVE value of 0.689, exceeding the 0.500 criterion suggested by Hair et al. (2010), the construct 'Well-Being' manifests good convergent validity.

Conversely, the 'Job Engagement' construct, which encompasses three observable variables, namely, 'Workplace Relationships', 'Career Development', and 'Organizational Support', encountered some discrepancies. The 'Career Development' variable revealed a factor loading below the established standard of 0.707 (Carmines & Zeller, 1979). Additionally, the reliability measures (Cronbach's alpha, rho_A, and CR) fell short of the benchmarks set by Hair et al. (2010), Hair et al. (2017), and Dijkstra & Henseler (2015). The AVE value of 0.414, which falls beneath the 0.500 threshold defined by Hair et al. (2010), implies suboptimal convergent validity for the 'Job Engagement' construct.

In summary, the construct 'Well-Being' exhibited high reliability and validity in this measure, whilst 'Job Engagement' demonstrated unsatisfactory reliability and validity, suggesting a need for further refinement.

Furthermore, the discriminant validity analysis was conducted to verify that each construct in the proposed model measures distinct characteristics. Both the Fornell & Larcker (1981) criteria and the Heterotrait-Monotrait Ratio (HTMT) of Henseler et al. (2015) were employed in this analysis. In the Fornell-Larcker Criterion, the diagonal values in the table represent the Average Variance Extracted (AVE) for each construct. The AVE should exceed the correlation values between constructs that exist in the same row or column (off-diagonal values). In this analysis, the AVE for each construct ('Job Engagement', 'Online Chat', 'Well-Being') should be higher than the corresponding correlation values. For the Heterotrait-Monotrait Ratio (HTMT), a value not surpassing 0.900 is required to confirm that the relationship between different constructs is less than the relationship within the same construct. In this study, the HTMT value between 'Well-Being' and 'Online Chat' was 0.269, less than 0.900, allowing this study to conclude that the relationship between 'Well-Being' and 'Online Chat' was less than the relationship within the same construct. However, the HTMT value between 'Well-Being' and 'Job Engagement' was 1.004, higher than 0.900, so the study cannot confirm that the relationship between 'Well-Being' and 'Job Engagement' was less than the relationship within the same construct. Therefore, for 'Well-Being' and 'Online Chat', it can be concluded that there is good discriminant validity. However, for 'Well-Being' and 'Job Engagement', good discriminant validity is not confirmed.

Table 3 Construct reliability and Convergent validity

Constructs	Observable variables	Factor loading	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Online Chat	Online Chat	1.000				
Well-Being	Work-Life Balance	0.816	0.774	0.775	0.869	0.689
	Emotional Condition	0.838				
	Family Happiness	0.835				
Job Engagement	Workplace Relationships	0.943	0.311	0.624	0.532	0.414
	Career Development	-0.113				
	Organizational Support	0.585				

Table 4 Discriminant validity

Constructs	Fornell-Larcker Criterion			Heterotrait-Monotrait Ratio (HTMT)		
	Job Engagement	Online Chat	Well-Being	Job Engagement	Online Chat	Well-Being
Job Engagement	0.644					
Online Chat	-0.191	1.000		0.463		
Well-Being						
Job Engagement	0.620	-0.236	0.830	1.004	0.269	

Structural model

The study employed the Partial Least Squares Structural Equation Modelling (PLS-SEM) analysis to assess the hypotheses established to examine the relationships and effects of Online Chat, Well-Being, and Job Engagement within the sample group, as depicted in Figure 2.

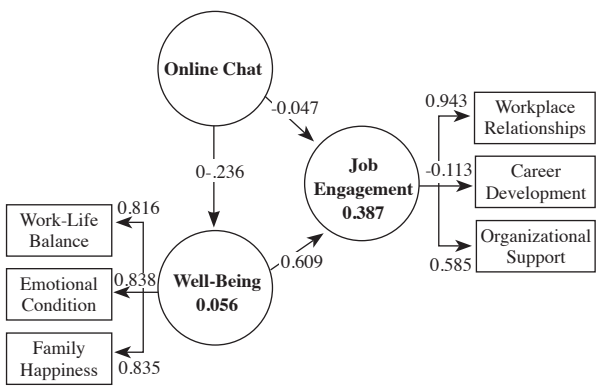

Figure 2 The structural model

The results of the study can be summarized as follows:

Hypothesis 1: Online Chat and Well-Being

• The path coefficients, represented by beta (β), denote the degree of change in the variable of Well-being, corresponding to a unit alteration in Online Chat. An assigned value of -0.236 intimates a reciprocal relationship, implying that an elevation in Online Chat frequency reciprocates with a decrease in the overall state of Well-being.

• The t-statistic is used to test the relationship between variables. If the t-statistic value is greater than 1.96 (related statistical step), it is considered that there is a statistically significant relationship.

• The p-value is the probability that the hypothesis of no relationship between the variables is correct. If the p-value is less than 0.05 (hypothesis can be accepted), it is considered that there is a statistically significant relationship.

Upon assessment of the analysis results, the support for Hypothesis 1 (H1) is substantiated, establishing the existence of an inverse correlation between Online Chat engagement and the state of Well-being.

Hypothesis 2: Online Chat and Job Engagement

• The path coefficients, denoted by beta (β), demonstrate the fluctuation in the Job Engagement variable in response to a unit shift in the Online Chat variable. A value of -0.047 characterizes a positive correlation, suggesting that an increase in Online Chat frequency is met with a corresponding rise in Job Engagement. Nonetheless, the relatively minimal magnitude of -0.047 suggests that this association might not be robust.

• The t-statistic, a statistical method used to examine the correlation between variables, bears a value of 0.465. This value falls short of the standard threshold of 1.96, indicating that the statistical evidence to affirm a relationship between Online Chat and Job Engagement is insufficient.

• The p-value, denoting the probability of the accuracy of the null hypothesis-that is, no correlation between the variables-has a value of 0.642. Given that this value exceeds the benchmark of 0.05, it implies a lack of substantial statistical evidence to affirm the correlation between Online Chat and Job Engagement.

Based on these results, Hypothesis 2 (H2) does not garner support, thereby suggesting a lack of a statistically significant association between the intensity of Online Chat engagement and the level of Job Engagement.

Hypothesis 3: Well-Being and Job Engagement

• The path coefficients, symbolized by beta (β), outline the extent of variation in the Job Engagement variable subject to a unitary modification in Well-being. The coefficient of 0.609 characterizes a positive correlation, suggesting that an enhancement in Well-being is accompanied by a proportionate increase in Job Engagement.

• The t-statistic, a tool utilized to test the correlation between variables, exhibits a value of 8.329. Given that this value considerably exceeds the standard statistical threshold of 1.96, it signifies the presence of ample statistical evidence affirming the relationship between Well-being and Job Engagement.

• The p-value, a metric expressing the likelihood of the null hypothesis-inferring no correlation between the variables-being accurate, exhibits a value of 0.000. This value, was notably lower than the benchmark of

0.05, indicates that there is abundant statistical evidence corroborating the relationship between Well-being and Job Engagement.

Following these results, Hypothesis 3 (H3) is affirmed, thereby validating the existence of a statistically significant positive correlation between Well-being and Job Engagement. These findings are comprehensively summarized in Table 5.

Table 5 Direct Relationship

Hypotheses	Effect	Path coefficients	t-Statistic	p-Value	Results
H1	Online Chat -> Well-Being	-0.236**	2.999	0.003	Supported
H2	Online Chat -> Job Engagement	-0.047**	0.465	0.642	Not Supported
H3	Well-Being -> Job Engagement	0.609**	8.329	0.000	Supported

Note: **Significant at 0.01

Mediating role of Social Skills

Table 6 delineates the indirect relationship routed via the variable of Well-being, specifically in the sequence of Online Chat -> Well-being -> Job Engagement.

• The path coefficients, represented by beta (β), signify that a unit increase in Online Chat, routed through Well-being, results in a decrease of 0.144 units in Job Engagement. A closer examination of this coefficient underscores an inverse correlation between Online Chat and Job Engagement, moderated by Well-being.

• The t-statistic, bearing a value of 2.903, quantifies the strength of the relationship between Online Chat and Job Engagement, mediated by Well-being. An ascending t-value insinuates a more assured relationship.

• The p-value serves as an instrument for statistical hypothesis testing. A p-value falling below the threshold of 0.05 (or 0.01 in certain scenarios) is deemed statistically significant. In this instance, the p-value of 0.004 denotes a significant indirect correlation between Online Chat and Job Engagement, intermediated by Well-being.

Therefore, it can be concluded that Online Chat exerts a statistically significant influence on Job Engagement, which is intermediated by Well-being, as depicted in Table 6.

Table 6 Indirect relationship

Effect	Path coefficients	t-Statistic	p-Value
Online Chat -> Well-Being -> Job Engagement	-0.144**	2.903	0.004

Note: **Significant at 0.01

Discussion

This research endeavours to unravel the relationship dynamics among online chatting, well-being, and job engagement, incorporating both direct and indirect interconnections. Owing to the advent of sophisticated information and communication technologies, there has been an amplification in scholarly inquiries concerning their implications on the daily existence of working individuals. Engaging in work-related digital communication outside traditional working hours might encroach upon domestic tranquillity and escalate the work-life/family conflict, thereby deteriorating work-life/family equilibrium, or potentially amplifying the valuation of work-life/family life (Santos et al., 2023). The findings of this study bear substantial relevance from both theoretical and practical perspectives, given that these tripartite factors influence the quality of life and operational efficiency of individuals, particularly in the context of mobile messaging, colloquially known as "group chatting". This type of interaction, characterized by its responsiveness, definitive boundaries, and explicit usage purpose, risks the conflation of virtual communication and tangible connectivity. It is observed that the boundaries demarcating group chat often extend beyond one-on-one communication and may engender communication lacunae (Mannell, 2020). The outcomes of this study corroborate the existence of a statistically significant correlation among online chatting, well-being, and job engagement. Furthermore, the study reveals the unidirectional nature of this relationship, which holds theoretical significance concerning the manner in which online chatting influences well-being and job engagement. Additionally, a notable aspect of this research is the exploration of the "Job Engagement" component, particularly the observed variable "Career Development" which interestingly exhibits a negative value. This unexpected finding prompts a deeper discussion on the potential implications of online chatting on career development aspects within job engagement. It suggests that while online chatting facilitates immediate communication and collaboration, it may also introduce challenges in maintaining clear boundaries for career development, possibly due to the blurring of work-life balance or the distraction from career-focused activities. To further validate these findings, the study included tests for normality as part of the basic assumptions underlying the statistical analyses, ensuring the data's suitability for the analytical methods employed.

Online Chat and Well-Being

Online chatting has become a pivotal mode of communication in the digital era, enabling global connections for both personal and professional interactions. This study delves into the intricate relationship between online chatting and well-being, a topic that has garnered attention in behavioral and social sciences. Previous research posits well-being as encompassing various dimensions, including a sense of belonging, self-understanding, quality relationships, and a meaningful existence (Liu et al, 2022). Contrary to some earlier studies that highlighted the positive aspects of digital communication, our findings reveal a nuanced scenario where increased online chatting correlates negatively with well-being. Specifically, the beta coefficient of -0.144 from our analysis suggests that an uptick in online communication might inversely impact psychological contentment, potentially leading to information overload and contributing to depression (Matthes et al., 2020). This divergence from previous research underscores the complexity of online chatting's impact on well-being, suggesting that its effects are not universally positive and may vary based on the intensity and context of use. Particularly among university professors, for whom online communication is essential for task completion beyond traditional work hours, the challenge of maintaining a clear work-life balance emerges as a significant concern. Our study highlights the specific pressures faced by this demographic, indicating that the continuous necessity for online communication can adversely affect their overall well-being, a finding that adds a new dimension to the discourse on digital communication and mental health. Moreover, the influence of online chatting on well-being may differ according to specific situations and contexts, a complexity that becomes apparent when considering the indirect relationships our study has identified. The sample group's reliance on various forms of online communication for completing tasks, including teaching, research, and other related activities, extends beyond regular working hours. This extension into personal time poses significant challenges in defining work-life balance for university professors, thereby impacting their well-being in ways that previous studies may not have fully captured. In essence, while online chatting serves as a crucial tool for communication, its implications for well-being are multifaceted and context-dependent. Our research contributes to the ongoing conversation by elucidating the nuanced ways in which digital connectivity intersects with psychological well-being, offering insights into the dual-edged nature of online communication in professional settings.

Online Chat and Job Engagement

When considering online chat in the workplace, its impact on job engagement presents a nuanced picture. Online conversations can democratize communication, allowing individuals to freely express opinions and foster stronger bonds within groups (Feng, Lu & Zhang, 2021). However, they may also distract from primary tasks or overwhelm individuals (Duke & Montag, 2017). In our study, focusing on university lecturers in Thailand's Southern region, online group chats showed no significant effect on job engagement. This finding contrasts with some previous research suggesting that digital communication platforms uniformly enhance workplace relationships and engagement. Our analysis reveals that while online chats can support more focused relationships among colleagues, they do not necessarily detract from job engagement in the context of academic work. This is particularly relevant for career progression and organizational support, areas where university lecturers are guided by clear performance guidelines and institutional policies. Such findings diverge from earlier studies that highlighted the potential of online communication to either significantly enhance or impair job engagement, suggesting that the impact may be more complex and context-dependent. This study contributes novel insights by illustrating that the effect of online chats on job engagement among university lecturers is moderated by the specific demands and structures of academic work. Unlike previous assertions of a direct positive or negative impact, our research indicates that online communication's role in job engagement is nuanced, influenced by institutional policies, and the nature of academic duties. These insights underscore the importance of considering the unique contexts of different professional settings when assessing the implications of online communication technologies.

Well-being and Job Engagement

The relationship between well-being and job engagement, emphasizing the significance of personal fulfillment and perceived value in one's work, plays a pivotal role in enhancing job engagement. This study's findings, demonstrating a direct correlation between well-being and job engagement, align with the theory of empowerment management, which posits a positive influence on mental health and job engagement (Park et al., 2017). However, our research extends beyond this

by illustrating that well-being's impact on job engagement is not merely additive but foundational, suggesting that individuals with higher levels of well-being exhibit significantly greater job engagement. In contrast to some previous studies that have offered a more segmented view of the relationship between these variables, our findings suggest a more integrated approach, highlighting well-being as a comprehensive factor that encompasses various aspects of work life, including job satisfaction, work environment, and organizational climate (International Labour Organization, 2021). This holistic perspective on well-being and job engagement underscores the importance of a supportive work environment and the role of personal well-being in fostering job dedication and effort. Moreover, our research contributes novel insights by suggesting that the pathway from well-being to job engagement is mediated by factors such as workplace safety, environmental quality, and the overall organizational climate. These elements, often overlooked in the broader discourse on job engagement, are shown to be crucial in facilitating a positive work experience, thereby enhancing job engagement. This nuanced understanding of the well-being-job engagement relationship offers a valuable contribution to the field, suggesting that interventions aimed at improving job engagement should consider a broad spectrum of well-being factors. In summary, while our findings corroborate the established notion that well-being positively influences job engagement, they also introduce a comprehensive model that considers the multifaceted nature of well-being. This approach not only aligns with but also expands upon previous research, providing a deeper understanding of how enhancing well-being can serve as a lever to boost job engagement across various sectors, including education.

Although online chatting can impact well-being and job engagement, it remains crucial for communication and information access. To maximize the use of online chat, it may be necessary to have appropriate timing and be able to manage any stress that might occur. Besides, promoting well-being also results in job engagement, leading to happiness and success at work.

Implication and Limitation

This research elucidates substantial implications that can inspire enhancements and developments in our contemporary, technology-infused lives, especially within the educational context. First, educational establishments should amplify awareness among their faculty about the potential influences of online chat on their psychological well-being and job engagement, advocating for dedicated time slots for chat platform usage and timely assistance during stress or emotional distress. Second, developers of online chat applications could integrate features promoting balanced use and relaxation, including usage limits or alerts upon exceeding predetermined thresholds. Third, teaching support centres could create programs or tools fostering job satisfaction and stress mitigation, potentially in collaboration with mental health departments or by providing training on efficient time and stress management methods. Lastly, the findings of this research can pave the way for further explorations into the causes of how online chat affects mental health and job engagement. Subsequent research could delve into ways of attenuating the impact of online chat usage and nurturing job satisfaction. Additional studies dissecting the interrelationship between online chatting, well-being, and job engagement across diverse settings-like remote work environments-or analysing the indirect effects of online conversations on psychological well-being and work participation at varying levels could yield invaluable insights.

This research, while insightful, possesses certain limitations that necessitate caution in interpretation and suggest areas for future refinement. The study is delimited by its exclusive focus on lecturers at Rajabhat University in the southern region of Thailand, potentially constraining the generalizability of results to broader demographic contexts such as students or faculty at other universities. Further, the methodology, primarily reliant on survey data, might engender self-reporting bias among respondents, thereby potentially compromising the fidelity of responses. Complexities in the underlying statistical relationships—potentially nonlinear in nature and susceptible to unaccounted confounding variables-imply that the conclusions drawn should be approached with circumspection. Additionally, the dynamic characteristics of online chat platforms, influenced by varying situational, cultural, and technological factors, highlight the fluidity of this research domain, suggesting that the results could be subject to change as the nature of online chat continues to evolve.

Conclusion

This investigation evaluated the influence of online chat platforms on the psychological well-being and job engagement of lecturers at Rajabhat University in the southern region of Thailand. The interpretation of the collected data indicated that online chats have a multifaceted impact on well-being and job engagement, fostering both beneficial and detrimental outcomes. This knowledge significantly expands our understanding of the interplay between communication technologies and aspects of mental health and professional outcomes within an academic environment. It sheds light on the pivotal role communication technologies play in influencing psychological wellness and job commitment. The findings could be instrumental in refining strategies geared towards fostering a supportive online communication environment, particularly in managing mental well-being and enhancing job engagement among the lecturers at Rajabhat University in the southern region.

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References

Abeele, M. V., De Wolf, R., & Ling, R. (2018). Mobile media and social space: How anytime, anyplace connectivity structures everyday life. *Media and Communication, 6*(2), 5-14.

Adisa, T.A., Ogbonnaya, C. and Adekoya, O.D. (2023). Remote working and employee engagement: a qualitative study of British workers during the pandemic. *Information Technology and People,* Vol. 13, pp. 1835-1850.

Alagaraja, M. (2020). Wellbeing in the workplace: A new conceptual model and implications for practice. *The Palgrave Handbook of Workplace Well-Being,* 1-22.

Alalwan, N. (2022). Actual use of social media for engagement to enhance students' learning. *Education and Information Technologies, 27*(7), 9767-9789.

Albrecht, S. L., Furlong, S., & Leiter, M. P. (2023). The psychological conditions for employee engagement in organizational change: Test of a change engagement model. *Frontiers in Psychology, 14,* 18.

Aldabbas, H., Pinnington, A., & Lahrech, A. (2023). The influence of perceived organizational support on employee creativity: The mediating role of work engagement. *Current Psychology,* 42(8), 6501-6515.

Almost, J., Wolff, A., Mildon, B., Price, S., Godfrey, C., Robinson, S., ... & Mercado-Mallari, S. (2015). Positive and negative behaviours in workplace relationships: a scoping review protocol. *BMJ open,* 5(2), e007685.

Awan, A., & Atta, A. (2023). Impact of Online Chat Language on Second Language Learners' written composition: A Corpus Based-Study. *Global Language Review, VIII.*

Baticulon, R. E., Sy, J. J., Alberto, N. R. I., Baron, M. B. C., Mabulay, R. E. C., Rizada, L. G. T., ... & Reyes, J. C. B. (2021). Barriers to online learning in the time of COVID-19: A national survey of medical *students in the Philippines.* Medical science educator, 31, 615-626.

Beer, P., & Mulder, R. H. (2020). The effects of technological developments on work and their implications for continuous vocational education and training: A systematic review. *Frontiers in psychology, 11,* 918.

Büchi M., Festic N., Latzer M. (2019). Digital overuse and subjective well-being in a digitized society. *Social Media + Society, 5*(4), 1–12.

Carmines, E. G., & Zeller, R. A. (1979). Reliability and Validity Assessment (Vol. 17). *Thousand Oaks, CA: Sage.*

Chaknum, P., Harniratisai, T., Somprasert, C., & Chiang, L. C. (2023). Perception of the factors contributing to family happiness among caregivers of stroke survivors in a suburban community in Thailand: A qualitative study. *Malaysian family physician: the official journal of the Academy of Family Physicians of Malaysia, 18,* 13.

Dijkstra, T.K. & Henseler, J. (2015) Consistent partial least squares path modeling. *MIS Quarterly,* 39, 297-316. https://doi.org/10.25300/MISQ/2015/39.2.02

Duke É., Montag C. (2017). Smartphone addiction, daily interruptions and self-reported productivity. *Addictive Behaviors Reports,* 6, 90–95. doi:10.1016/j.abrep.2017.07.002

Eldor, L. & Harpaz, I. (2016) A process model of employee engagement: the learning climate and its relationship with extra-role performance behaviors, *Journal of Organizational Behavior,* 37, 213– 235. https://doi.org/10.1002/job.2037

Feng, Y. K., Lu, X., & Zhang, X. M. (2021). Mutual Disclosures and Content Intimacy in Customer Group Engagement: Evidence from Online Chat Groups. Xianghua and Zhang, Xiaoquan (Michael), Mutual Disclosures and Content Intimacy in Customer Group Engagement: Evidence from Online Chat Groups (March 25, 2021). http://dx.doi.org/10.2139/ssrn.3812055

Fernandez-Portero, C., Amian, J. G., Alarcón, D., Arenilla Villalba, M. J., & Sánchez-Medina, J. A. (2023, January). The effect of social relationships on the well-being and happiness of older adults living alone or with relatives. Healthcare, 11(2), 222.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of marketing research, 18(1), 39-50.

Franco, M., & Haase, H. (2012). A comparative study of cooperative relationships in family and non-family businesses. *African Journal of Business Management, 6*(44),

Garrick, A., Mak, A. S., Cathcart, S., Winwood, P. C., Bakker, A. B., & Lushington, K. (2018). Non-work time activities predicting teachers' work-related fatigue and engagement: An effort-recovery approach. *Australian Psychologist, 53*(3), 243-252.

Giles, S., Fletcher, D., Arnold, R., Ashfield, A., & Harrison, J. (2020). Measuring well-being in sport performers: Where are we now and how do we progress?. *Sports Medicine, 50,* 1255-1270. https://doi.org/10.1007/s40279-020-01274-z

Hair, J., Hult, G., Ringle, C., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM).* Thousand Oaks, CA: Sage.

Hair, J., Risher, J., Sarstedt, M., & Ringle, C. (2019). When to use and how to report the results of PLS-SEM. *European Business Review, 31*(1), 2-24.

Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2010). *Multivariate Data Analysis.* 7th Edition, New York: Pearson,.

Hanssen, N., & Sundström, J. (2022). *Digital communication in the sales process: The influence of digital communication and the rationale behind using it.* Retrieved August 10, 2023 from https://urn.kb.se/resolve?urn=urn:nbn:se:umu:diva-197385

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling. *Journal of the Academy of Marketing Science, 43,* 115-135.

Hwang, M. Y., Hong, J. C., Tai, K. H., Chen, J. T., & Gouldthorp, T. (2020). The relationship between the online social anxiety, perceived information overload and fatigue, and job engagement of civil servant LINE users. *Government Information Quarterly, 37*(1), 101423.

International Labour Organization. (2021). *Decent work.* ILO. Retrieved August 10, 2023 from https://www.ilo.org/global/topics/decent-work/lang--en/index.htm

International Trade Union Confederation. (2018). *Global poll: Governments' failure to address low wages and insecure jobs threatens trust in politics and democracy.* YouGov/ITUC. Retrieved August 10, 2023 from https://www.ituc-csi.org/ITUC-Global-Poll-2018

Ju, Y. C., & Paek, T. (2010). How to safely respond to SMS messages in automobiles. In *Proceedings of the 2nd international workshop on Multimodal interfaces for automotive applications (pp*. 8-8).

Khalid, J., Weng, Q.D., Luqman, A., Rasheed, M.I. and Hina, M. (2021). After-hours work-related technology use and individuals' deviance: the role of other-initiated versus self-initiated interruptions. *Information Technology and People, Vol. 35*(7), 1955-1979.

Kock, N., & Hadaya, P. (2018). Minimum sample size estimation in PLS-SEM: The inverse square root and gamma-exponential methods. *Information Systems Journal, 28*(1), 227–261.

Kun, A., & Gadanecz, P. (2022). Workplace happiness, well-being and their relationship with psychological capital: A study of Hungarian teachers. Current Psychology: *A Journal for Diverse Perspectives on Diverse Psychological Issues, 41*(1), 185–199.

Kundi, Y. M., Aboramadan, M., Elhamalawi, E. M., & Shahid, S. (2021). Employee psychological well-being and job performance: exploring mediating and moderating mechanisms. *International Journal of Organizational Analysis, 29*(3), 736-754.

Lal, B., Dwivedi, Y. K., & Haag, M. (2023). Working from home during Covid-19: doing and managing technology-enabled social interaction with colleagues at a distance. *Information Systems Frontiers, 25*(4), 1333-1350.

Lanaj K., Johnson R. E., Barnes C. M. (2014). Beginning the workday yet already depleted? Consequences of late-night smartphone use and sleep. *Organizational Behavior and Human Decision Processes, 124*(1), 11–23.

Lau, D. C., Lam, L. W., & Wen, S. S. (2014). Examining the effects of feeling trusted by supervisors in the workplace: A self-evaluative perspective. *Journal of Organizational Behavior, 35*(1), 112-127.

Lee, H. W., Kim, S., & Uhm, J. P. (2021). Social virtual reality (VR) involvement affects depression when social connectedness and self-esteem are low: a moderated mediation on well-being. *Frontiers in Psychology, 12,* 753019.

Lee, H., McNamara, T. K., Pitt-Catsouphes, M., & Lee, J. (2014). Opportunities to improve skills and to teach and train others: employee outcomes in the U nited S tates and J apan. *International Journal of Training and Development, 18*(3), 204-222.

Lew, Z., Walther, J. B., Pang, A., & Shin, W. (2018). Interactivity in online chat: Conversational contingency and response latency in computer-mediated communication. *Journal of Computer-Mediated Communication, 23*(4), 201-221.

Liu, C., Zhou, S., & Bai, X. (2022). Intergenerational relationship quality, sense of loneliness, and attitude toward later life among aging Chinese adults in Hong Kong. *Frontiers in Psychology, 13,* 930857.

Malvaso, A., & Kang, W. (2022). The relationship between areas of life satisfaction, personality, and overall life satisfaction: An integrated account. *Frontiers in psychology, 13,* 894610.

Mannell, K. (2020). Plural and porous: Reconceptualizing the boundaries of mobile messaging group chats. *Journal of Computer-Mediated Communication, 25*(4), 274-290.

Matthes J., Karsay K., Schmuck D., Stevic A. (2020). "Too much to handle": Impact of mobile social networking sites on information overload, depressive symptoms, and well-being. *Computers in Human Behavior, 105,* 1–11.

Mazzetti, G., Robledo, E., Vignoli, M., Topa, G., Guglielmi, D., & Schaufeli, W. B. (2023). Work engagement: A meta-analysis using the job demands-resources model. *Psychological Reports, 126*(3), 1069-1107.

Mazzetti, G., Robledo, E., Vignoli, M., Topa, G., Guglielmi, D., & Schaufeli, W. B. (2023). Work engagement: A meta-analysis using the job demands-resources model. *Psychological Reports, 126*(3), 1069-1107.

McDaniel B. T., Drouin M. (2019). Daily technology interruptions and emotional and relational well-being. *Computers in Human Behavior, 99,* 1–8.

Men, L. R., Qin, Y. S., & Jin, J. (2022). Fostering employee trust via effective supervisory communication during the COVID-19 pandemic: Through the lens of motivating language theory. *International Journal of Business Communication, 59*(2), 193-218.

Nguyen M. H. (2021). Managing social media use in an "always-on" society: Exploring digital wellbeing strategies that people Use to disconnect. *Mass Communication and Society, 24*(6), 795–817.

Ninaus, K., Diehl, S., & Terlutter, R. (2021). Employee perceptions of information and communication technologies in work life, perceived burnout, job satisfaction and the role of work-family balance. *Journal of Business Research, 136,* 652-666.

Oksanen, C. (2023). *The impact of remote work on motivation in Finland.* Retrieved from

Park, J. G., Sik Kim, J., Yoon, S.W. and Joo, B.-K. (2017), "The effects of empowering leadership on psychological well-being and job engagement: The mediating role of psychological capital", *Leadership & Organization Development Journal, 38*(3), 350-367.

Paerata, K. (2023). The use of workplace instant messaging since COVID-19. *Telematics and Informatics Reports, 10,* 100063.

Peña-Sarrionandia, A., Mikolajczak, M., & Gross, J. J. (2015). Integrating emotion regulation and emotional intelligence traditions: a meta-analysis. *Frontiers in psychology, 6,* 160.

Rajapaksha, R. A., & Tilakasiri, K. K. (2020). Individual Factors of Employee Engagement in Organizational Performance. In *Proceedings of the International Conference on Business & Information (ICBI).*

Reverberi, E., Manzi, C., Van Laar, C., & Meeussen, L. (2022). The impact of poor work-life balance and unshared home responsibilities on work-gender identity integration. *Self and Identity, 21*(5), 588-607. https://doi.org/10.1080/15298868.2021.1914715

Rhoads, S. A., & Marsh, A. A. (2023). *Doing Good and Feeling Good: Relationships Between Altruism and Well-being for Altruists, Beneficiaries, and Observers.* In World Happiness Report 2023 (11th ed., Chapter 4). Sustainable Development Solutions Network.

Rizvanović, B., Zutshi, A., Grilo, A., & Nodehi, T. (2023). Linking the potentials of extended digital marketing impact and start-up growth: Developing a macro-dynamic framework of start-up growth drivers supported by digital marketing. *Technological Forecasting and Social Change, 186,* 122128

Sadaf, M., Mukhtar, U., Nemati, A. R., Yousaf, R., & Javed, W. (2022). Impact of organizational value system, perceived organizational support, and job satisfaction on organizational commitment. *Journal of Entrepreneurship, Management, and Innovation, 4*(1), 71-99. 1

Sadiq, I. Z. (2023). Lifestyle medicine as a modality for prevention and management of chronic diseases. *Journal of Taibah University Medical Sciences, 18*(5), 1115-1117.

Salazar, C. A. (2022). Emerging organizational culture from the benefits and drawbacks of Facebook messenger group chat trend in public schools. *Jurnal Aplikasi Manajemen, 20*(1), 1-11.

Santos, A., Roberto, M. S., Camilo, C., & Chambel, M. J. (2023). Information and communication technologies-assisted after-hours work: A systematic literature review and meta-analysis of the relationships with work–family/life management variables. *Frontiers in Psychology, 14,* 1101191.

Sato, K., Kuroda, S., & Owan, H. (2020). Mental health effects of long work hours, night and weekend work, and short rest periods. *Social Science & Medicine, 246,* 112774.

Satria, N., & Kustiawan, U. (2023). The role of job insecurity and high commitment work system on employee well being. *Jurnal cafetaria, 4*(1), 25-39.

Schnauber-Stockmann A., Meier A., Reinecke L. (2018). Procrastination out of habit? The role of impulsive versus reflective media selection in procrastinatory media use. *Media Psychology, 21*(4), 640–668.

Schoofs, L., Hornung, S., & Glaser, J. (2022). Prospective effects of social support on self-actualization at work-The mediating role of basic psychological need fulfillment. *Acta psychologica, 228,* 103649.

Setyawati, N. W., PG, D. S. W., & Rianto, M. R. (2022). Career development, motivation and promotion on employee performance. *East Asian Journal of Multidisciplinary Research, 1*(9), 1957-1970.

Shaito, F. (2019). *Career development: An overview.* Retrieved 10 August, 2023 from https://www. researchgate. net/publication/336812981. Research· October.

Stephens, K. K., & Harrison, M. A. (2017). Work as Opportunity and Problem When Trying to Impact Health and Risk. In *Oxford Research Encyclopedia of Communication.*

Sulphey, M. M. (2023). Workplace spirituality, self-compassion and mindfulness as antecedents of employee mental wellbeing. *South Asian Journal of Business Studies, 12*(2), 269-292.

UNESCO. (2022). *Glossary: Information and communication technologies (ICT).* Institute for Statistics. Retrieved 5 June, 2022 from https://uis.unesco.org/en/glossary-term/information-and-communication-technologies-ict.

Vorderer P., Hefner D., Reinecke L., Klimmt C. (2017). *Permanently online, permanently connected: Living and communicating in a POPC world*. London: Routledge.

Walden, J., Jung, E. H., & Westerman, C. Y. (2017). Employee communication, job engagement, and organizational commitment: A study of members of the Millennial Generation. *Journal of public relations research, 29* (2-3), 73-89.

Wöhrmann, A. M., Dilchert, N., & Michel, A. (2021). Working time flexibility and work-life balance. *Zeitschrift für Arbeitswissenschaft, 75*(1), 74-85.

Wong, G. Y. L., Kwok, R. C. W., Zhang, S., Lai, G. C. H., Li, Y., & Cheung, J. C. F. (2023). Exploring the consequence of information communication technology-enabled work during non-working hours: a stress perspective. *Information Technology & People,* (ahead-of-print).

Yao, J., Qiu, X., Yang, L., Han, X., & Li, Y. (2022). The relationship between work engagement and job performance: psychological capital as a moderating factor. *Frontiers in psychology, 13,* 729131.

Zhang, X., Ma, L., Xu, B., & Xu, F. (2019). How social media usage affects employees' job satisfaction and turnover intention: *An empirical study in China. Information & Management, 56*(6), 103136.

Zhong, J., Chen, Y., Yan, J., & Luo, J. (2022). The mixed blessing of cyberloafing on innovation performance during the COVID-19 pandemic. *Computers in human behavior, 126,* 106982.