


**INTENTION TO QUIT AS MEDIATOR IN OCCUPATIONAL STRESS AND BURNOUT  
RELATIONSHIP**

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ARTICLE INFO	ABSTRACT
<p><b>Article history:</b></p> <p><b>Received</b> 22 May 2023</p> <p><b>Accepted</b> 18 August 2023</p>	<p><b>Purpose:</b> The objective of this study was to identify relationship between occupational stress and burnout with the mediating role of intention to quit.</p> <p><b>Theoretical framework:</b> Research focusing on the relationship between occupational stress and burnout with the mediating role of intention to quit among Malaysian firefighters is scarce, highlighting the need for further exploration in this area. There is a need to identify the reaction and negative effects of occupational stress.</p> <p><b>Design/methodology/approach:</b> A quantitative research design was employed to achieve this, utilizing a cross-sectional survey approach with self-administered questionnaires distributed to firefighters as participants. Burnout was assessed using the Maslach Burnout Inventory - General Survey (MBI-GS), the Sources of Occupational Stress (SOOS-14) scale was used to measure occupational stress and the intention to quit was evaluated using a dedicated scale for measuring intention to quit. 254 questionnaires were collected from firefighters working at the fire station around Melaka, Malaysia.</p> <p><b>Findings:</b> The direct relationship hypothesis test results show that occupational stress has a positive relationship with the intention to quit but is negatively related to burnout. The intention to quit is positively related to burnout and its dimensions. The findings from the hypothesis tests on the mediating variables confirm the crucial role of the intention to quit as a mediator in the relationship between occupational stress and burnout.</p> <p><b>Research, Practical &amp; Social implications:</b> We suggest future research to insert coping strategies as prevention to moderate the relationship between occupational stress and intention to quit.</p> <p><b>Originality/value:</b> This study provides empirical evidence that although occupational stress has no positive relationship with burnout, the intention to quit is a significant mediator that amplifies the impact of prolonged occupational stress on burnout.</p> <p>Doi: <a href="https://doi.org/10.26668/businessreview/2023.v8i8.2804">https://doi.org/10.26668/businessreview/2023.v8i8.2804</a></p>
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## INTENÇÃO DE SAIR COMO MEDIADOR NO RELACIONAMENTO DE ESTRESSE E ESGOTAMENTO OCUPACIONAL

### RESUMO

**Objetivo:** O objetivo deste estudo foi identificar a relação entre estresse ocupacional e esgotamento com o papel mediador da intenção de desistir.

**Quadro teórico:** É escassa a investigação centrada na relação entre stress ocupacional e esgotamento com o papel mediador da intenção de abandono entre os bombeiros malaios, destacando a necessidade de uma maior exploração nesta área. É necessário identificar a reação e os efeitos negativos do estresse ocupacional.

**Projeto/metodologia/abordagem:** Um projeto de pesquisa quantitativa foi empregado para conseguir isso, utilizando uma abordagem de pesquisa transversal com questionários autoadministrados distribuídos aos bombeiros como participantes. O Burnout foi avaliado utilizando-se a escala Maslach Burnout Inventory - General Survey (MBI-GS), a escala Sources of Occupational Stress (SOOS-14) foi utilizada para medir o estresse ocupacional e a intenção de desistir foi avaliada utilizando-se uma escala dedicada para medir a intenção de sair. Foram coletados 254 questionários de bombeiros que trabalhavam no posto de bombeiros em Melaka, Malásia.

**Constatações:** Os resultados do teste de hipótese de relação direta mostram que o estresse ocupacional tem uma relação positiva com a intenção de desistir, mas está negativamente relacionado ao esgotamento. A intenção de desistir está positivamente relacionada ao burnout e suas dimensões. Os achados dos testes de hipóteses sobre as variáveis mediadoras confirmam o papel crucial da intenção de deixar o emprego como mediador na relação entre estresse ocupacional e esgotamento.

**Investigação, implicações práticas e sociais:** Sugerimos investigação futura para inserir estratégias de enfrentamento como prevenção para moderar a relação entre estresse ocupacional e intenção de parar.

**Originalidade/valor:** Este estudo fornece evidência empírica de que, embora o estresse ocupacional não tenha relação positiva com a exaustão, a intenção de desistir é um mediador significativo que amplifica o impacto do estresse ocupacional prolongado na exaustão.

**Palavras-chave:** Burnout, Bombeiros, Intenção de Sair, Estresse Ocupacional.

## INTENCIÓN DE DEJAR DE SER MEDIADOR EN LA RELACIÓN ESTRÉS OCUPACIONAL Y BURNOUT

### RESUMEN

**Objetivo:** Identificar la relación entre estrés laboral y burnout con el papel mediador de la intención de dejar de fumar.

**Marco teórico:** La investigación que se centra en la relación entre el estrés laboral y el burnout con el papel mediador de la intención de dejar de fumar entre los bomberos malaios es escasa, lo que destaca la necesidad de una mayor exploración en esta área. Es necesario identificar la reacción y los efectos negativos del estrés ocupacional.

**Diseño/metodología/enfoque:** Para ello se utilizó un diseño de investigación cuantitativa, utilizando un enfoque de encuesta transversal con cuestionarios autoadministrados distribuidos a los bomberos como participantes. El burnout se evaluó mediante el Maslach Burnout Inventory - General Survey (MBI-GS), la escala Sources of Occupational Stress (SOOS-14) se utilizó para medir el estrés ocupacional y la intención de dejar de fumar se evaluó mediante una escala dedicada para medir la intención de dejar de fumar. Se recolectaron 254 cuestionarios de los bomberos que trabajaban en la estación de bomberos cerca de Melaka, Malasia.

**Hallazgos:** Los resultados de la prueba de hipótesis de relación directa muestran que el estrés ocupacional tiene una relación positiva con la intención de dejar de fumar, pero está negativamente relacionada con el burnout. La intención de dejar de fumar se relaciona positivamente con el burnout y sus dimensiones. Los hallazgos de las pruebas de hipótesis sobre las variables mediadoras confirman el papel crucial de la intención de dejar de fumar como mediador en la relación entre estrés laboral y burnout.

**Investigación, implicaciones prácticas y sociales:** Sugerimos futuras investigaciones para insertar estrategias de afrontamiento como prevención para moderar la relación entre estrés ocupacional e intención de dejar de fumar.

**Originalidad/valor:** Este estudio aporta evidencia empírica de que aunque el estrés ocupacional no tiene relación positiva con el burnout, la intención de dejar de fumar es un mediador significativo que amplifica el impacto del estrés ocupacional prolongado sobre el burnout.

**Palabras clave:** Burnout, Bomberos, Intención de Abandonar, Estrés Ocupacional.

## **INTRODUCTION**

Occupational stress is prevalent across various professions globally, demanding effective management strategies. Occupational stress is one of the major issues that might severely impact employees' physical and mental health in Europe. (Dipboye 2018; Gerber et al. 2019; Makara-Studzinska, Wajda & Lizinczyk 2020; Soteriades et al. 2019). Being a firefighter is one of the most difficult and dangerous jobs one can have. In the United States of America (USA), some firefighters lose their lives while performing their duties each year (Britton et al. 2013).

Dedicating more research efforts to understanding and addressing stress among firefighters and rescuers is imperative. In addition to the common factors contributing to occupational stress, such as less organizational support, heavy workloads, unfavorable working conditions, career development pressures, and interpersonal conflicts, careers in emergency services entail unique stressors. These include exposure to traumatic events involving tragic deaths and severe injuries. Consequently, the distinctive challenges firefighters and rescuers face necessitate focused investigations to develop targeted interventions and support systems. (Katsavouni et al. 2016; Kimbrel et al. 2015; Klimley, Van Hasselt & Stripling 2018). Firefighters, commonly the first to respond in any emergencies like accidents and natural disasters, face traumatic events that can lead to occupational. A systematic review conducted by Skogstad et al. (2013) revealed that professionals such as police officers, ambulance paramedics and firefighters regularly encounter cases of traumatic incidents that lead to occupational stress.

When occupational stress remains unmanaged, it can eventually result in burnout among firefighters, potentially leading them to consider quitting their jobs. Therefore, this study aims to discover the relationship between occupational stress and burnout and examine the relationship of the intention to quit as mediator between occupational stress and burnout. This study poses these research questions. First, does occupational stress relate to the intention to quit and burnout? Second, does the intention to quit mediate the relationship between occupational stress and burnout?

## **LITERATURE REVIEW**

### **Occupational Stress Studies**

Occupational stress, primarily derived from job-related factors, arises when work demands outweigh the employee's control and available resources. Job control refers to the

ability of employees to have the authority to make decisions regarding their work tasks (Karasek 1979). Various factors contribute to occupational stress, including high job demands (Duran et al. 2018), limited job control, unfavorable work conditions (Mosadeghrad, 2013), inadequate organizational support (Xu & Yang 2018), inadequate social support (Bakker & Costa, 2014), challenges in career development, conflicts with co-workers, long working hours, sleep deprivation or disturbances (Wolkow et al., 2019), as well as exposure to traumatic events in the workplace (Harvey et al., 2016; Schonfeld & Bianchi, 2016).

### **Firefighters' Occupational Stress**

Accidents, terrorist attacks, large-scale fires, and an increase in criminal activity are only a few of the present communities' global challenges that have led to emergencies, which has increased the demand for emergency and security services (Peterson & Seligman 2003; Kulachai & Amaraphibal 2017). Firefighters belong to a professional group and serve as first responders during accidents or disasters. However, numerous studies highlight that firefighting is considered one of the most challenging occupations due to its exposure to traumatic events, encounters with deceased individuals, fatalities, and elevated stress levels compared to other professions. Studies on the impacts of occupational stress on firefighters have been conducted (Kales et al. 2007; Perrin et al. 2007). Numerous psychologists have discovered that among firefighters, physiological measures like heart rate variability (HRV), high blood pressure, cortisol and skin conductance are the most prevalent stress indicators (Castaldo et al. 2015). The cumulative effects of occupational stress on firefighters can substantially negatively affect their professional and personal lives. The impact of the work stress that firefighters experience on their families has been examined in numerous studies in this field. Firefighters' families could be harmed by work-related stress. (Smith et al. 2017).

However, the effect of pressure on families depends on the level of occupational stress that firefighters experience (Chung et al. 2015). According to some research, firefighters' intentions to leave their jobs may be affected by occupational stress (Chung et al. 2015; Jong-Hyun, Lee & Kyung-Sun 2020; Ryu et al. 2020). Based on the Work Stress Model (Palmer et al. 2001), stressors encompass various factors such as demands, support systems, interpersonal relationships, organizational changes, levels of control, and role expectations. According to Pefrene et al. (2001), work demands are psychological pressures restricting workers from completing duties, such as mental burdens, organizational restrictions, or conflicting demands. (Pelfrene et al. 2001). Past traumatic events that have an impact on trauma (Beaton & Murphy,

1993; Malek et al. 2010) and a heavy workload are examples of these work demands. Occupational norms and workloads that demand intense physical exertion can deplete high physical energy. Recalling traumatic events experienced during regular work can also result in the appropriate utilization of emotions. Uncomfortable work conditions and unpredictable work schedules can also impact (Bakker & Oerlemans 2011). When physical and psychological resources do not return to normal, the job's demands might lead to stress.

Job control refers to employees' ability to exercise autonomy and make decisions regarding their work processes. When job control is low, employees face challenges in carrying out tasks according to their preferred methods and achieving organizational objectives. The combination of high work demands and limited job control can have detrimental effects on individuals' mental and physical well-being (De Vos et al., 2013). Relationship variables play a crucial role in mitigating conflicts and dealing with undesirable workplace behaviors such as bullying and harassment. Positive employee relationships, including those with senior managers, peers, and subordinates, characterized by trust and support, are essential for preventing stress among employees (Palmer, Cooper & Thomas, 2004; Blaug, Kenyon & Lekhi, 2007).

The change factor encompasses the manner in which an organizational change, irrespective of its magnitude, is introduced, structured, and conveyed to personnel. Inadequately managed changes, encompassing deficient planning and execution stages, have the potential to exert undue pressure on employees and result in occupational stress. The role factor concerns how well-informed individuals are of their responsibilities within the company and how well-equipped the company is to prevent overlapping roles. Employees under stress may have overlapping duties and responsibilities due to their lack of understanding of their position within the organization. Support within the organizational context is exemplified by various forms of encouragement, financial backing, and resources, which may be extended by the organization itself, top-level management, or colleagues. Such support encompasses provisions like job training and serves as a crucial component in fostering a conducive work environment. Furthermore, the support received from both organizations and coworkers, as well as family members, can exert an influence on individuals. It is noteworthy that family conflicts can serve as a significant source of stress for individuals (Ismail et al. 2010). Employees experiencing occupational stress tend to attribute their organization for inadequate assistance in addressing and alleviating the underlying causes or factors responsible for workplace stress.

Nevertheless, it holds significance for researchers examining occupational stress factors within the firefighting profession to direct their attention towards the traumatic experiences linked to the everyday stressors encountered within the organization (Brough 2004). In light of this, the researcher utilizes the Source of Occupational Stress framework (Beaton, Randal & Murphy, 1993), specifically designed to assess the multifaceted sources of occupational stress experienced by firefighters, encompassing traumatic incidents occurring during their work shifts.

### **Transactional Theory of Stress and Coping**

The theoretical framework proposed by Lazarus and Folkman in 1984 suggests that occupational stress emerges from the dynamic interactions between individuals and environmental factors, giving rise to stress responses. Individuals' reactions to stressors are influenced by their interpretations and coping abilities. When faced with potential workplace stress, individuals initially evaluate whether the situation will have negative (distress), positive (eustress), or no impact.

In the secondary appraisal stage, individuals assess the coping options available to them, including both internal resources such as personal strengths and external resources such as financial support and social networks. When perceived as insufficient to effectively manage the stressors, individuals experience stress. Consequently, individuals prioritize the acquisition of adequate internal and external resources to address the underlying causes of occupational stress and take appropriate actions.

Addressing sources of occupational stress can be approached through problem-focused or emotion-focused coping strategies. Problem-focused coping entails efforts to avoid or eliminate stressors, such as making changes to job responsibilities or considering job transitions (Hammig 2018). Conversely, emotion-focused coping involves individuals managing stressors while still being exposed to them. Prolonged exposure to such stressors can lead to physical and emotional exhaustion, ultimately resulting in burnout (Bussig et al. 2017; Maslach, Schaufeli & Leiter 2001). Burnout represents the eventual outcome when attempts to cope with occupational stress prove ineffective (Hammig 2018).

### **Burnout**

Burnout emerges as a result of prolonged exposure to unaddressed factors of occupational stress among employees (Schaufeli, Leiter & Maslach 2009). This perspective



aligns with the explanation provided by Murphy et al. (1994), who describe burnout as an extreme manifestation of cumulative stress. Individuals in the firefighting profession frequently encounter physically, physiologically, and psychologically traumatic incidents (Jo et al. 2018). Additionally, Gorgens-Ekermans and Brand (2012) and Park et al. (2017) suggest that firefighters may experience "chronic stress" stemming from ongoing tension and demanding work conditions, including shift work. These challenging circumstances can significantly impact firefighters, leading to elevated stress levels, compromised quality of life, and long-term physical and mental consequences (Soteriades et al. 2019; Wang et al. 2017; Kales et al. 2007). Extensive research, particularly by Maslach and Leiter (2016), has focused on burnout, defining it as a chronic state of emotional exhaustion, interpersonal cynicism, diminished personal identity, and reduced professional effectiveness. Although burnout is primarily considered a mental health issue, it can have adverse psychological and physical implications for firefighters.

Recent studies have demonstrated the prevalence of burnout in high-risk and hazardous professions such as doctors, nurses, police officers, and firefighters (Frajerman et al. 2019; Scanlan & Still 2019; Jeung & Chang 2021; Lee et al. 2018). Longitudinal studies involving emergency service workers have established a connection between work-related stress, fatigue, burnout, and post-traumatic stress (Ploeg & Kleber 2003). In the context of firefighters, the consequences of burnout may prompt individuals to contemplate leaving their profession if they are unable to effectively manage the underlying stressors that contribute to burnout. Berkeley Planning Associates (1997) concluded that burnout often manifests through behavioral symptoms, resulting in job dissatisfaction, complaints, or even voluntary resignation. The decision to quit employment can be influenced by emotional symptoms, such as a sense of helplessness or emotional exhaustion associated with dissatisfaction with the firefighting profession (Maslach & Jackson 1981).

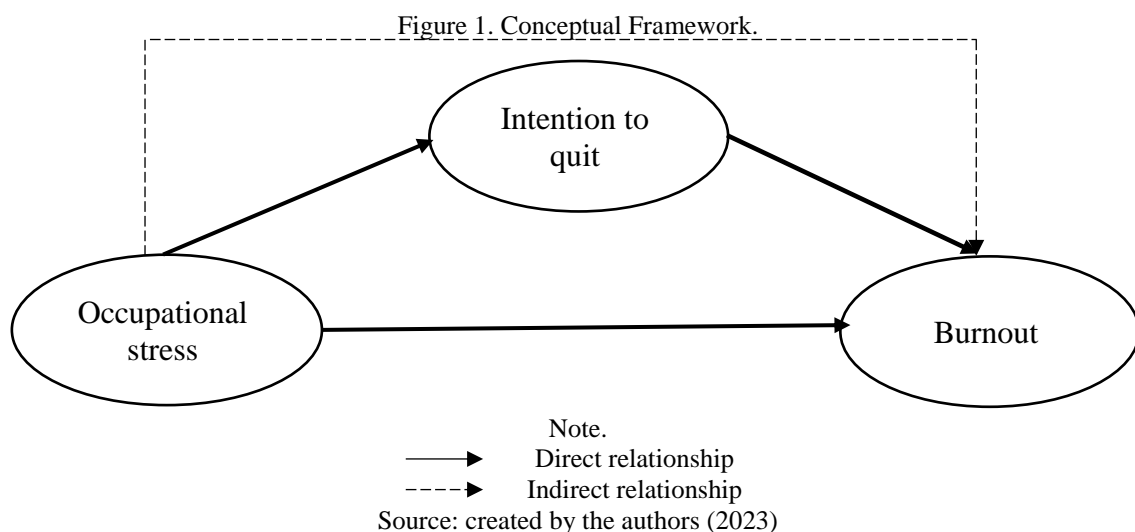
### **Intention to Quit**

The intention to quit refers to an employee's contemplation of leaving their current job and pursuing alternative employment opportunities, driven by various factors such as improved remuneration, better benefits, enhanced career prospects, and occupational stress (Mobley 1977; Steel & Lounsbury 2009; Shields & Ward 2001). Employees may decide to leave an organization based on the assumption that quitting would be a straightforward process and beneficial for their overall well-being (Muala et al. 2022; Hoonakker, Carayon & Korunka 2013). In the specific context of firefighters, occupational stress significantly influences their

inclination to quit. Cook and Mitchell (2013) conducted a study examining different types of occupational stress commonly encountered by firefighters, highlighting incidents such as infant death, exposure to traumatic scenes, physical injuries, chemical exposure, and large-scale fires as prominent stressors. Furthermore, a study conducted by Duran, Woodhams, and Bishop (2018) centered on examining occupational stress and resilience among firefighters in the United Kingdom, revealing a significant correlation between the intention to quit and occupational stress. Similarly, Mansor and Idris (2015) investigated the connection between occupational stress and employee resilience within Malaysian banks, revealing a notable positive relationship between the intention to quit and occupational stress.

### CONCEPTUAL FRAMEWORK AND RESEARCH HYPOTHESES

Figure 1 shows the conceptual framework for this study based on the literature review.



#### Occupational Stress as A Determinant for Intention to Quit

In addition to occupational stress, salary and benefits that are not commensurate with better career options encourage individuals to stop working (Haque et al. 2018; Sims et al. 2016). According to Carayon et al. (2006), an employee's desire to leave his or her current organization may be influenced by the belief that quitting and departing the organization is simple and advantageous to the employee himself. Occupational stress is prevalent in studies of intention to quit (Kachi et al. 2020; Mosdeghrad 2013). Mosdeghrad (2013) conducted a study involving 296 nurses in Iran and found that over 35% desired to quit their jobs due to occupational stress. This indicates that occupational stress may be the leading cause of intention to quit among emergency personnel.



Recent research by Kachi et al. (2020) involving 9,657 employees of a financial corporation in Japan revealed that 882 employees resigned between October 2012 and April 2016. In other words, occupational stress increases the likelihood that individuals will quit their jobs (Kachi et al. 2020), and it is one of the contributors to the intention to leave (Mosdeghrad 2013). Based on previous research, this study hypothesizes that occupational stress significantly impacts firefighters' intentions to quit their jobs. Accordingly, the following constitutes the study's hypothesis:

Hypothesis 1: Occupational stress is significantly related to the intention to quit.

### **Occupational Stress as Determinant for Burnout**

Burnout is a long-lasting response to occupational stress, manifesting as a syndrome characterized by emotional exhaustion, depersonalization in interpersonal interactions, and a decrease in personal achievement. (Maslach 2001). According to studies, occupational stress is directly related to emotional exhaustion and inefficiency (Xu & Yang 2018). The firefighting profession is widely recognized as one of the most hazardous occupations, primarily due to the recurrent exposure to traumatic incidents that can have detrimental effects on the physical and psychological well-being of firefighters (Lee et al. 2018; Sawhney et al. 2018; Lee et al. 2017; Angelo & Chambel 2015; Katsavouni et al. 2015). Smith et al. (2018) and Smith et al. (2017) found that burnout is one factor that increases the physical and mental risk of firefighters due to the effects of occupational stress on their careers.

The relationship between occupational stress and burnout has been extensively studied across multiple professions, with special attention given to nursing due to the significant exposure of nurses to traumatic events. According to studies, burnout is associated with increased occupational stress among physicians and nurses (Zaghini et al. 2020). In professions such as nursing and firefighting, the demand for quality services is frequently a burden for those who work in these disciplines. This circumstance causes additional occupational stress, which contributes to burnout. This indicates a connection between occupational stress and burnout (Hammig 2018; Smith et al. 2018). According to the study by Katsavouni et al. (2016), the exact relationship was also identified among firefighters. This study demonstrates that burnout negatively impacts both personal and professional life.

Accordingly, this study implies that occupational stress significantly impacts firefighters' burnout. Consequently, the following hypothesis has been established:

Hypothesis 2: Occupational stress is significantly related to burnout.

Hypothesis 3: Occupational stress is significantly related to emotional exhaustion.

Hypothesis 4: Occupational stress is significantly related to depersonalization.

Hypothesis 5: Occupational stress is significantly related to a decline in personal achievement.

### **Intention to Quit as Mediator**

Numerous prior studies indicate a strong link between occupational stress and burnout, highlighting that higher levels of occupational stress are associated with an increased likelihood of experiencing burnout. Psychological capital has been used as a mediator in these investigations (Khalid et al. 2020; Wang et al. 2017). This demonstrates that a third variable can influence the direct relationship between occupational stress and burnout; in this case, it is a mediating variable. By the Theory of Stress Prevention Management (Quick et al. 1997), stress factors will lead to stress reactions and subsequent effects or outcomes. The stress response, therefore, functions as a mediator between stress factors and stress effects.

The intention to quit work is one of the factors that can mediate the relationship between occupational stress and burnout. Previous research has demonstrated that the intention to quit is one of the significant impacts of occupational stress on the stress response. In other words, the intention to quit a job is one of the symptoms or stress responses individuals may experience (Palmer et al. 2001). According to a study by Hammig (2018) on emergency nurses in Belgium, occupational stress factors influenced their intention to quit. In a study conducted by Mosdeghrad (2013) involving 296 nurses in Iran, it was discovered that more than 35% desired to quit their work, with occupational stress being the primary cause. Similarly, Kachi et al. (2020) discovered that occupational stress contributes to employees' intention to quit.

In addition, studies demonstrate a correlation between the stress response, i.e., the intention to quit, and the stress effects, i.e., burnout. According to a study conducted by Scanlan and Still (2019) on 277 mental health workers, the intention to quit work caused burnout.

Based on the findings, the researcher concludes that the intention to quit a job can serve as a mediating factor in the relationship between burnout and occupational stress. It is also consistent with the Occupational Stress Model (Palmer et al. 2001), which states that an increase in the number of employees who resign is one of the stress symptoms or reactions caused by stress factors. Consequently, the following hypothesis is developed:

Hypothesis 6: Intention to quit significantly mediates occupational stress and burnout.

Hypothesis 7: Intention to quit significantly mediates occupational stress and emotional

exhaustion.

Hypothesis 8: Intention to quit significantly mediates occupational stress and depersonalization.

Hypothesis 9: Intention to quit significantly mediates occupational stress and decline in personal achievement.

## **METHODOLOGY**

### **Partial Least Square-Structural Equation Modelling (PLS-SEM)**

In this study, the data was analyzed using PLS-SEM due to its suitability for examining a theoretical framework from a predictive standpoint. PLS-SEM was selected as it enables the evaluation of extensive structural models that encompass multiple constructs, indicators, and interactions among variables (Hair et al., 2019), aligning with the objectives of this research.

### **Questionnaire Design**

The current study used a survey method to gather data. The self-administered questionnaire has four sections: demographic information about the respondents, sources of occupational stress, intention to quit, and burnout. With 1 denoting "strongly disagree" and five denoting "strongly agree," we utilized a five-point Likert scale. The survey represents the variables selected for the current investigation. The overall number of indicators was 35, including 14 for sources of occupational stress, five for intention to quit, and 16 for burnout.

Statements like "Concerns about serious personal injury/disability/death due to work" were included in the measures for sources of occupational stress, adapted from Kimbrell's (2011). The measures for intention to quit, which included phrases like "I intend to look for a new job within the next year," were adapted from Mobley et al.'s (1978) survey on intent to stay. Maslach Burnout Inventory – General Survey (Schaufeli et al. 1996) was used for burnout measures such as "I feel emotionally drained from my work."

Demographic data pertaining to the respondents' age, marital status, and length of service were collected as part of the study. This section consisted of five questions. Prior to distributing the survey to all participants, the items were reviewed for their relevance, and any ambiguities were addressed and revised accordingly. Moreover, a panel of selected experts evaluated the questionnaire for its validity. To further refine the instrument, a pilot study involving 35 participants was conducted, and the results obtained from the pilot study were utilized to improve the final version of the instrument.

## Sample Profile

The present study utilized a cross-sectional survey design to collect data from firefighters affiliated with the Fire-Rescue Department in the state of Melaka. Proportional stratified random sampling was employed to gather data from firefighters at their convenience. The sample was drawn from three districts in Melaka, namely the Melaka Tengah District, Jasin District, and Alor Gajah District. A self-administered questionnaire consisting of 35 items was used for data collection. Prior to distribution to all relevant fire stations in the aforementioned districts, the questionnaire received approval from the Director of Malaysia's Fire Rescue Department of Melaka.

In total, 280 questionnaires were distributed, and 254 completed questionnaires were received from respondents. To ensure data quality, the analysis initially addressed common data collection issues such as missing data, suspicious response patterns, outliers, and data distribution, following the guidelines proposed by Hair et al. (2017). Suspicious response patterns, including diagonal-lining, straight-lining (consistent responses), and alternating extreme pole replies, were identified. Descriptive statistics, such as mean and variance, were computed using SPSS version 27.0 to identify these issues. Univariate outliers were assessed using the z-score method recommended by Tabachnick and Fidell (2001), while multivariate outliers were evaluated using the Mahalanobis distance test developed by Tabachnick and Fidell (2013). As a result, 25 questionnaires exhibiting suspicious response patterns and outliers were excluded from the dataset. Consequently, further data processing considered only 229 valid responses.

## RESULT AND DISCUSSION

All constructs in the current study were measured using reflective measures. The assessment process involved both the measurement and structural models. The results of the reflective measurement approach are presented in Table 1. The outer loadings of all indicators significantly exceeded the cutoff value of 0.70, ranging from 0.754 to 0.959. Internal consistency reliability was evaluated using both Cronbach's alpha and composite reliability measures. The Cronbach's alpha values, displayed in Table 1, ranged from 0.907 to 0.970, indicating strong internal consistency. Similarly, the composite reliability ratings ranged from 0.929 to 0.976, further confirming the reliability of the measures. Consequently, the reliability criteria, as outlined by Leguina (2015), were met, as both measures exceeded the threshold of 0.7. Validity was assessed using the average variance extracted (AVE). The findings revealed

that all AVE values surpassed the cutoff value of 0.50. Therefore, the selected constructs for this study demonstrated both validity and reliability for each indicator item, as supported by the evidence. Ensuring the inclusion of valid indicators for all constructs is crucial to produce reliable findings in the study.

Table 1. Reflective Measurement Model Results

<b>Construct</b>	<b>Items</b>	<b>Outer loading (&gt;0.7)</b>	<b>Cronbach's alpha (&gt;0.7)</b>	<b>Composite reliability (&gt;0.7)</b>	<b>AVE (&gt;0.5)</b>
Occupational stress	OCS1	0.861	0.957	0.962	0.741
	OCS2	0.887			
	OCS3	0.84			
	OCS4	0.888			
	OCS5	0.84			
	OCS6	0.959			
	OCS7	0.827			
	OCS8	0.827			
	OCS9	0.843			
	OCS10	0.825			
	OCS11	0.832			
	OCS12	0.811			
	OCS13	0.829			
	OCS14	0.85			
Intention to quit	ITQ1	0.921	0.907	0.929	0.689
	ITQ2	0.754			
	ITQ3	0.844			
	ITQ4	0.898			
	ITQ5	0.865			
Burnout Depersonalization	DEP1	0.889	0.94	0.954	0.807
	DEP2	0.921			
	DEP3	0.893			
	DEP4	0.911			
	DEP5	0.876			
Emotional exhaustion	EMO1	0.947	0.97	0.976	0.893
	EMO2	0.942			
	EMO3	0.933			
	EMO4	0.946			
	EMO5	0.956			
Personal Accomplishment	PAC1	0.941	0.97	0.975	0.868
	PAC2	0.923			
	PAC3	0.916			
	PAC4	0.94			
	PAC5	0.923			
	PAC6	0.948			

Source: created by the authors (2023)

The evaluation of the heterotrait-monotrait correlation (HTMT) was the final need for the reflective model. The model's HTMT findings are shown in Table 2. The standard cut-off value used in this investigation is 0.85. All HTMT values were assumed to be below 0.90 to establish the discriminant validity. The range of HTMT values was less than the cut-off value, between 0.228 and 0.642 (Henseler et al. 2015). The discriminant validity of the current study was established using the recognized HTMT values.

Table 2. Discriminant Validity Results Using HTMT

	<b>Intention to quit</b>	<b>Burnout</b>	<b>Occupational Stress</b>
Intention to quit			
Burnout	0.642		
Occupational Stress	0.39	0.228	

Source: created by the authors (2023)

The reliability and validity of the measurement model were evaluated using four assessment criteria. Subsequently, the structural model was analyzed using various metrics, including the variance inflation factor (VIF), coefficient of determination ( $R^2$ ), effect size ( $f^2$ ), and path coefficients. The significance and predictive relevance of these metrics were examined in accordance with Leguina's (2015) methodology.

Table 3. VIF, Coefficient of Determination and Effect Size Result

<b>Latent variables</b>	<b>Intention to quit</b> ( $R^2 = 0.186$ )		<b>Burnout</b> ( $R^2 = 0.378$ )	
	VIF	Effect size ( $f^2$ )	VIF	Effect size ( $f^2$ )
Intention to quit	1.18		1.18	0.522
Occupational stress	1.001	0.188	1.18	0.0

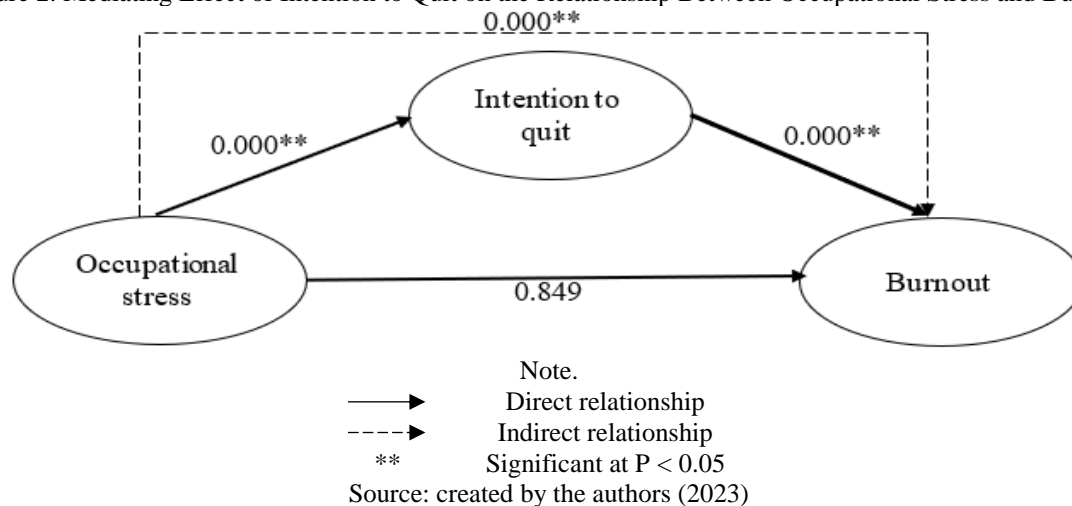
Source: created by the authors (2023)

The results of the current study's VIF, coefficient of determination, and effect size are displayed in Table 3. Since the VIF values were all less than 5, collinearity is not a problem. In the proposed model, there were two endogenous latent variables: occupational stress and intention to quit. Table 3 illustrates the extent to which these latent variables explain the dependent variables.  $R^2$  values for intention to quit and burnout are 0.186 and 0.378, which explains that occupational stress explains 18.6% of the variation in intention to quit. In addition, 37.8% of the variation in burnout is explained by the intention to quit and occupational stress. Meanwhile, the value of  $f^2$  ranges from 0.0 to 0.522. the effect size of intention to quit has the most significant effect on burnout, which is 0.522. the effect of occupational stress on the intention to quit is 0.188, while occupational stress has no effect size on burnout, with the value of  $f^2$  being 0.



Results were generated using bootstrapping procedures with 5,000 resamples. Table 4 shows the scale and significance of the hypothesized relationships.

Figure 2. Mediating Effect of Intention to Quit on the Relationship Between Occupational Stress and Burnout.



For Hypothesis 1, the initial correlation test shows a positive relationship between occupational stress and the intention to quit ( $\beta = 0.392, p < 0.000$ ), with the upper and lower levels of confidence both showing positive values. Thus, Hypothesis 1 has been supported. Analysis for Hypothesis 2 also found a positive relationship between intention to quit and burnout ( $\beta = 0.619, p < 0.000$ ), with both upper and lower levels of confidence showing positive values. Thus, Hypothesis 2 is also supported. While Hypothesis 2a, Hypothesis 2b, and Hypothesis 2c suggest a relationship between the dimensions of burnout and the intention to quit, namely personal accomplishment, depersonalization, and emotional exhaustion. From the results of the analysis, it shows these three hypotheses have a positive relationship with a value of  $\beta = 0.440, p < 0.000$ ;  $\beta = 0.511, p < 0.000$  and  $\beta = 0.538, p < 0.000$  with the upper and lower confidence levels for all the hypotheses showing positive values. Therefore, all three hypotheses have been supported.

Next, the analysis of Hypothesis 3 found that occupational stress does not have a positive relationship with burnout, where  $\beta = -0.011, p > 0.000$ , with the lower level of confidence showing a negative value. In contrast, the value of the upper level of confidence shows a positive value. These results show that Hypothesis 3 is not supported. While Hypothesis 3a, Hypothesis 3b, and Hypothesis 3c suggest a relationship between occupational stress and the dimensions of burnout. The analysis results show that these three hypotheses do not have a positive relationship with the value of  $\beta = -0.008, p > 0.000$ ;  $\beta = 0.009, p > 0.000$ , and  $\beta = -0.009, p > 0.000$ . The confidence level values for Hypothesis 3a and Hypothesis 3b

show a negative value for the lower level and a positive value for the upper level. In contrast, Hypothesis 3c has a positive value for both levels of confidence. Therefore, the analysis found that Hypothesis 3a, Hypothesis 3b, and Hypothesis 3c were not supported.

Table 4. Summary of the Analysis of Hypothesized Relationship

Hypothesized relationship		$\beta$	P-value	(2.5%, 95%) CI	Result
H1	OCS → ITQ	0.392	0.000**	(0.292, 0.476)	Supported
H2	ITQ → Burnout	0.619	0.000**	(0.536, 0.689)	Supported
H2a	ITQ → EMX	0.440	0.000**	(0.370, 0.509)	Supported
H2b	ITQ → PAC	0.511	0.000**	(0.429, 0.581)	Supported
H2c	ITQ → DEP	0.538	0.000**	(0.464, 0.604)	Supported
H3	OCS → Burnout	-0.011	0.849	(-0.104, 0.082)	Not supported
H3a	OCS → EMX	-0.008	0.846	(-0.075, 0.058)	Not supported
H3b	OCS → PAC	-0.009	0.845	(-0.087, 0.067)	Not supported
H3c	OCS → DEP	-0.009	0.846	(0.091, 0.071)	Not supported
H4	OCS→ITQ→Burnout	0.242	0.000	(0.165, 0.324)	Supported
H4a	OCS→ITQ→EMX	0.172	0.000	(0.114, 0.239)	Supported
H4b	OCS→ITQ→PAC	0.200	0.000	(0.134, 0.273)	Supported
H4c	OCS→ITQ→DEP	0.211	0.000	(0.142, 0.283)	Supported

Note: OCS – Occupational stress; ITQ – Intention to quit; EMX – Emotional exhaustion; PAC – Personal accomplishment; DEP – Depersonalization

\*\* significant at  $P < 0.05$

Source: created by the authors (2023)

In this study, it was also hypothesized that the intention to quit would act as a mediator in the relationship between occupational stress and burnout. Hypothesis 4 proposes that the intention to quit mediates the connection between occupational stress and burnout. The analysis findings reveal a positive relationship ( $\beta = 0.242$ ,  $p < 0.000$ ), with the confidence level value also recording positive values of 0.165 and 0.324, indicating support for this hypothesis. Thus, this hypothesis has been supported. Although the direct effect test results of the relationship between occupational stress and burnout were not supported, the results of the indirect effect analysis explained that the intention to quit played an essential role as a mediator in the relationship between occupational stress and burnout.

While Hypotheses 4a, 4b, and 4c suggest the intention to quit as a mediating variable in the relationship between occupational stress and the dimensions of burnout, namely emotional exhaustion, depersonalization, and personal accomplishment. The results of the analysis show that these three hypotheses have a positive relationship with the value of  $\beta = 0.172$ ,  $p < 0.000$ ;  $\beta = 0.200$ ,  $p < 0.000$  and  $\beta = 0.211$ ,  $p < 0.000$  with the upper and lower confidence levels for all the hypotheses showing positive values. Thus, the three hypotheses have also been supported. The results of this indirect effect test explain that the intention to

quit also plays a vital role as a mediator in the relationship between sources of occupational stress and the dimensions of burnout.

## CONCLUSION

This research study presents a comprehensive framework that examines the impact of occupational stress on burnout and the intention to quit among firefighters in Malaysia. The results highlight the pivotal role of the intention to quit as a mediating factor in the relationship between occupational stress and burnout. These findings hold significant implications for both theoretical understanding and practical applications. Theoretically, this study lends support to the Transactional Theory of Stress and Coping, specifically by emphasizing the influence of emotion-focused and problem-focused coping strategies. The selection of these coping mechanisms can influence the development of burnout and the likelihood of considering the intention to quit among firefighters. In terms of practical implications, the findings provide valuable insights for stakeholders responsible for firefighters, including government bodies and fire departments.

The findings of this study demonstrate a positive association between occupational stress and the intention to quit among firefighters. These findings corroborate hypothesis H2, aligned with the Occupational Stress Model (Palmer et al., 2001), which posits that increased stress levels at work contribute to a higher intention to quit. Hence, higher work-related stress levels are linked to an increased inclination to leave the job. These findings also align with a previous study by Jiang et al. (2021), which reported that employees express a stronger desire to quit their jobs when they perceive an inability to cope with work-related stress.

Additionally, the study's findings support the research by Mosadeghrad (2013) and Chiang and Chang (2012), indicating that a diverse range of workplace stressors leads to employees contemplating leaving their jobs. Despite firefighters undergoing rigorous physical training and consistently working under stressful conditions, including traumatic events, such circumstances can still impact their psychological and emotional well-being. Enduring persistent stressors prompts firefighters to entertain the idea of quitting as a means to avoid continued exposure to the challenging situations.

Burnout arises when individuals experience a cumulative and prolonged stress response stemming from occupational stressors (Batu et al., 2016; Katsavouni et al., 2015; Maslach et al., 2001). This study reveals that the intention to quit is associated with burnout and its three dimensions: emotional exhaustion, depersonalization, and decline in personal

achievement. The intention to quit serves as a crucial indicator of an employee's inclination to leave and seek alternative employment (Mowday et al., 1984). This finding aligns with and parallels a prior study by Chen et al. (2019), which demonstrated that when employees contemplate quitting, they begin to exhibit behaviors indicative of withdrawal, such as reduced performance, increased absenteeism, and conflicts with colleagues.

Furthermore, this study examines the influence of various sources of occupational stress on burnout. The findings indicate that sources of occupational stress do not significantly affect burnout among firefighters. Moreover, the study reveals that the sources of occupational stress do not substantially impact the three dimensions of burnout. These findings differ from those of Galanakis et al. (2020) and Li et al. (2021), who asserted that occupational stress indeed influences employee burnout. Previous research has also demonstrated a relationship between occupational stress and burnout (Peihong & Xiaoyan, 2019).

However, the findings of this study show the opposite, where occupational stress does not affect burnout. This finding suggests that stress at work does not necessarily affect the individual's feelings of exhaustion if it occurs in a short period. However, occupational stress for a prolonged period and not dealt with effectively can contribute to burnout (Tong, Yun Na & Xiaoyu 2019). The non-significant relationship between occupational stress and burnout shows the critical role of intention to quit as a mediating variable.

The study's findings show that the intention to quit is an essential mediator between occupational stress and burnout. This significant positive relationship shows the intention to quit causing the effect of burnout triggered by occupational stress. This is because the results of the direct relationship between sources of occupational stress and burnout in this study did not show a positive relationship. This finding is also in line with the Occupational Stress Model (Palmer et al. 2001), which states that individuals who are faced with stress at work will experience individual symptoms of having the intention to quit work before experiencing the negative effects of occupational stress.

Employees who cannot take the easy way out of work are forced to continue working in the same place and will continue to face the exact source of stress in that workplace (Sai & Pinapati 2023; Lee et al. 2020). Despite having the desire to quit work, they are forced to continue working in the same place due to some unavoidable constraints such as the difficulty of finding a new job, financial needs for personal and family expenses, or even work norms that have been guaranteed such as working with the government. This situation coincides with the avoid or fight method, where employees have to continue fighting with the source of stress

at work due to being unable to avoid and move to another place. Employees with a higher intention to quit will experience higher burnout when they have to continue dealing with occupational stress.

The intention to quit can also result in firefighters experiencing emotional exhaustion. This is because individuals will begin to feel emotionally exhausted when faced with various sources of stress continuously. These symptoms of burnout can result in the worst effects, such as feeling like there is no purpose left in life and committing suicide (Chia et al. 2021). Individuals will also feel useless to themselves and the organization and isolate themselves from family and society. This situation will cause decreased performance and negative behavior, such as frequent absences from work (Dias et al. 2022; Rajendran et al. 2020; Dyrbye et al. 2019).

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