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UNIVERSITY OF VAASA

Sushil Kumar Pandey

**The Influence of Mindfulness on Resilience Among
Project Professionals; A Quantitative Study.**

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Author: Sushil Kumar Pandey
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Supervisor: Jari Ruokolainen
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ABSTRACT:

The study examines the influence of mindfulness on resilience among project professionals, focusing on whether mindfulness can predict resilience in high-stress project environments. Because of the growing importance of good stress management and emotional control in project management, the research is trying to fill the void in literature with stress by quantitatively analysing the correlation between mindfulness and resilience in project-based work. Project managers, engineers, IT professionals and construction specialists (N=52) were surveyed using the Mindful Attention Awareness Scale (MAAS) and the Connor-Davidson Resilience Scale (CD-RISC-10). The data were gathered using an online questionnaire and analyzed using descriptive and inferential statistical analysis such as Pearson correlation and multiple regression analysis.

The result showed that there was positive correlation with very small value between mindfulness and resilience with the value of $r = 0.197$. Additionally, the results of the regression analysis indicated that the model did not account for a significant proportion of the variance in resilience ($p = 0.162$); and that only 3.9% of the variance in resilience was explained by the model. These findings indicate that there is a minor association between mindfulness and resilience, and other determining factors for resilience among project professionals are possibly more important. The study adds to the literature on mindfulness and resilience, especially in the context of project management, as there are other possible predictors of resilience that need to be investigated, including self-efficacy and social support.

The findings of the study have implications for professional project management practice: although mindfulness can help to regulate your emotions and maintain your well-being, it might not be the key to being resilient. Future interventions should include other strategies for promoting resilience outcomes in addition to the mindfulness training to more holistically address the variety of factors involved in building professional resilience. Further research should explore long-term effects of mindfulness on resilience and consider additional factors that may influence resilience in the project-based environment.

KEYWORDS:(Mindfulness, Resilience, Project Professionals, Project Management)

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1 Introduction

1.1 Background and Importance of Mindfulness in Enhancing Resilience Among Project Professionals

In modern organizational environments, professionals are increasingly exposed to elevated levels of psychological pressure arising from workload intensity, performance accountability, time constraints, and persistent uncertainty. In specific, project professionals have to work in swift, interim, and goal-directed work frameworks which require constant coordination, speedy decision making, and management of stakeholders. These stressful environments often lead to high pressure, burnout, deteriorated psychological health, and diminished adaptive ability. Therefore, the concept of resilience, which can be defined as the capacity to adjust, recuperate, and continue to be psychologically functional despite the adversity, has turned out to be a very important individual asset to professional effectiveness and positive project results.

In the context of organizational and occupational health research, mindfulness has increasingly received more focus as a mental construct that allows contributing to better well-being and adaptive functioning. Mindfulness is generally defined as the present moment awareness, open-minded and non-judgmental. There is empirical evidence in a wide range of professional environments indicating that mindfulness is a useful intervention in emotional regulation, attentional control, and stress management, which leads to the formation of psychological resilience. Research in highly stressful careers like law enforcement, healthcare, education, and social work show that mindfulness-based programs have a powerful effect on perceived stress and aggression and enhance coping skills and general psychological wellbeing (Roulston et al., 2022).

An emerging literature also supports the establishment of a positive relationship between mindfulness and resilience in workplace environments. Harper et al. (2021) and Gregory et al. (2021) found mindfulness to be a relevant predictor of resilience in employees working in high-

stress professions, which enhances emotional stability and adaptive responses to stress. On the same note, Zhang and Dong (2020) stated that mindfulness improves personal robustness and work performance through decreased cognitive overload and amplified psychological elasticity. These results are supported by the studies focusing on interventions that show that mindfulness-based stress reduction interventions result in quantifiable enhancements in resilience and psychological well-being (Ma et al., 2022).

There is also evidence that underscores the applicability of mindfulness in project- and technically-focused careers, in which the stress surrounding performance is especially intense. Empirical data collected on construction workers and project managers show that mindfulness can be used to maintain attention, enhance the quality of decisions, and enhance stress-resistance skills, thus allowing the workers to stay resilient in project-related tasks of high complexity and uncertainty (Diaz et al., 2021). Similarly, the studies of IT professionals and organizational employees indicate that mindfulness increases the resilience of the individual as well as organizational-wide resilience and long-term performance (Miller and Grant, 2021). Despite this growing evidence, quantitative research specifically examining the influence of mindfulness on resilience among project professionals remains limited, underscoring the importance of systematically investigating this relationship to inform evidence-based interventions and organizational practices.

1.2 Definition of key concepts

Mindfulness

Mindfulness is one of the fundamental psychological constructs in the study and generally refers to a state of conscious present awareness whereby there is openness, attention and non-judgment of the internal experiences and external environments. The conceptualization of mindfulness as a purposeful mind to the current experiences without any judgment made by Kabat-Zinn (1994, 2003) is aimed at the creation of awareness, emotional regulation, and psychological balance enhancement. Mindfulness in the organizational setting helps the

professionals to react to the stressful situations in the organization, as opposed to reacting as a motor reflex. Empirical studies have also shown that mindfulness augments attentional control, stress, and adaptive functioning in employees operating in high-stress settings (Gregory et al., 2021). In the project-based field, mindfulness has been demonstrated to enhance concentration, quality of decision-making, and stress management, thus providing the ability to maintain performance over complicated and unpredictable situations (Diaz et al., 2021).

Resilience

Resilience describes the ability of an individual to respond in a positive way, recover and continue the psychological functioning despite the stress, adversity or hard work demands. Masten (2001, 2014) defined resilience as ordinary magic, which is a dynamic process instead of an immutable characteristic. Likewise, Richardson (2002) has developed the concept of resilience as one of reintegration whereby people develop and change after disruption. Resilience has been considered an indispensable psychological asset in the work environment that helps practitioners overcome current stressors without compromising their well-being and performance (Joseph and Jose, 2020). The studies in the field of healthcare, education, and high-stress jobs all point to the fact that increased resilience correlates with better coping, psychological wellbeing, and work performance (Ma et al., 2022).

Mindfulness-Resilience Relationship

The connection between resilience and mindfulness is long-standing in the occupational and organizational studies. Mindfulness helps in building resiliency by improving emotional control, decreasing cognitive load, and improving psychological flexibility, which are associated with adaptive coping in times of stress (Gregory et al., 2021). Research carried out in the various professional fields, such as law enforcement, health care, education, information technologies, and project management, confirms that mindfulness is one of the key predictors of resilience and wellbeing (Roulston et al., 2022). The intervention-based studies also establish that mindfulness-based stress reduction interventions result in resilience and psychological health that can be measured (Ma et al., 2022).

Project Professionals

Project professionals are people working in project-based jobs including project managers, engineers, technical specialists, IT professionals, and construction practitioners that work in dynamic, time-limited and goal-oriented work environments. The professionals often face high uncertainty, performance, and complexity of stakeholders, which can expose them to stress and burnout (Diaz et al., 2021; Leung et al., 2021). Studies show that mindfulness can be especially applicable to project professionals, as it helps them to focus their attention in the long run, make decisions under pressure, and cope with stress, which leads to individual and organizational performance (Turner et al., 2021).

Perspective of Resource Conservation.

Another theory used in this study is Conservation of Resources (COR) theory where stress is theorized as an expression of actual or perceived loss of important resources (Hobfoll, 1989). In this view, mindfulness is a personal mental resource that allows people to keep, preserve, and develop resilience in stressful workplaces (Hobfoll et al., 2018). Mindfulness enhances resilience among occupational stressors that may be experienced by project professionals who have endured emotional regulation and cognitive flexibility by equipping them with internal resources.

1.3 Problem Statement and Research Gap

In contemporary organizational environments, professionals are increasingly required to function under conditions characterized by high workload intensity, strict deadlines, performance accountability, and continuous uncertainty. These stresses are especially strong in case of project professionals whose activity is rooted in temporary, goal-oriented and dynamic frameworks. Project experts are supposed to bring together and organize different teams, deal

with complicated stakeholder demands, and produce results using limited resources and time. These extreme working environments often lead to a long-term psychological strain, emotional fatigue, burnout, and worsening mental health, which may negatively influence the functioning of an individual and the final results of a project.

Resilience has thus been one of the most important psychological abilities that have allowed people to adjust positively, overcome adversity, and still perform effectively in a difficult situation. The empirical evidence of high-stress professions, such as healthcare, law enforcement, education, social work, and emergency services, shows that the increased resilience levels are linked with the positive stress coping, lower burnout, better emotional regulation, and job performance (Gregory et al., 2021). Nevertheless, resilience is not an absolute or stable characteristic but it is dynamic and could diminish when people do not have enough psychological reserves to handle constant occupational stressors.

To address this issue, mindfulness has been identified as a potentially effective psychological process of enhancing resilience. Mindfulness as the awareness of the present moment that is open and non-judgmental has been found to increase the attentional control, emotional regulation, and adaptive stress processing. Empirical evidence is accumulating to suggest that mindfulness-based interventions lower perceived stress, emotional reactivity and burnout and enhance resilience and general well-being among different groups of professionals (Rees et al., 2020; Ma et al., 2022; Harper et al., 2021). Research is carried out in the healthcare, education, and law enforcement departments, all of which have consistently proven the usefulness of the mindfulness practice in enhancing coping skills and adaptive functioning in the high-stress environments (Manson and Murphy, 2020).

Irrespective of this growing literature, some rather important gaps still exist in the current literature. To begin with, most studies in the area of mindfulness-resilience have involved healthcare professionals, educators, students, law enforcement officers, and employees in general organizational settings relatively little evidence has been offered on the topic of project professionals as a professional group (Christopher et al., 2020). The nature of work at projects,

including their temporality, the pressure to perform, the complexity of the stakeholders, and the level of uncertainty, is the fundamental difference between the project-based working environment and the more stable organizational setting. The latter peculiarities imply that the psychological needs to be encountered by project professionals might be significantly different to those that are encountered in the conventional work environment and have to be studied within a specific empirical framework.

Second, despite the fact that the concept of mindfulness has been studied in the context of project-related disciplines, such as construction management and project management, the literature has mainly focused on the outcomes in performance, productivity, and stress reduction instead of defining resilience as a key psychological outcome (Diaz et al., 2021). Consequently, the concept of resilience has received little to no consideration as a direct outcome of mindfulness due to the lack of research on the direct correlation between mindfulness and resilience among project professionals.

Third, a large portion of the literature available is based on intervention-based, pilot or small-sample designs. Although these methods are rather insightful, they do not allow as much freedom in generalizing the results and do not allow testing the strength and direction of the mindfulness and resilience relationship (Weihs, 2018; Rees et al., 2020). The quantitative and cross-sectional researches that have validated measurement scales to study this relationship in the context of project-based professional settings are also lacking significantly.

In a pragmatic sense, companies are pouring more and more financial resources into mindfulness and employee well-being programs that lack empirical evidence that could be applied to the particular mental and psychological challenges of project-based jobs. The lack of powerful quantitative research on project professionals limits the creation of evidence-based, specific interventions and organizational measures that can be used to build resilience in project-driven settings.

It is against this backdrop that there is an apparent gap in the research on the systematic, quantitative study of the link between mindfulness and resilience in project professionals. It is

necessary to fill this gap to contribute to theoretical knowledge on psychological resilience in project-based workplace settings and inform evidence-based organizational behaviours. Accordingly, the present study seeks to quantitatively investigate the influence of mindfulness on resilience among project professionals, thereby contributing to the mindfulness–resilience literature and providing practical insights relevant to project management and organizational well-being strategies.

1.4 Research Questions

The study is based on the following research questions:

1. What is the level of mindfulness among project professionals?
2. What is the level of resilience among project professionals?
3. Does mindfulness have a significant influence on resilience among project professionals?

1.5 Research Objectives

The objectives of the study are:

1. To assess the level of mindfulness among project professionals.
2. To assess the level of resilience among project professionals.
3. To examine the influence of mindfulness on resilience among project professionals.

1.6 Hypothesis of the study

H1: There is a significant level of mindfulness among project professionals.

H2: There is a significant level of resilience among project professionals.

H3: Mindfulness has a significant influence on resilience among project professionals.

1.7 Structure of thesis

The thesis is organized into five chapters that are well planned to respond to the aim of the study and to conduct an investigation on the impact of mindfulness on resilience among the project professionals. Introduction Chapter One: Introduction provides the background of the study by outlining the context of the area of study, which is mindfulness and resilience in project-based work environment. It includes the statement of the problem and gap in the research, the outlines of the objective of the research, research questions and hypotheses, and key concepts employed in the study. In this chapter, the author also gives an overview of the overall structure of the thesis.

Chapter Two: Literature Review provides a theoretical and empirical basis of the research through the literature review on the subject of mindfulness and resilience and their application to occupational and project related situations. The main theories, which are the foundation of the study, such as the mindfulness theory and conservation of resources theory, are discussed in this chapter, and the past empirical studies performed in different high-stress professions are critically reviewed. According to the literature review, the chapter presents the gaps in research and forms the conceptual frame of the study.

Chapter Three: Research Methodology describes the methodological approach that was used in the research. It explains the research design, population and sampling processes, data sources, data collection instruments, and measurement of variables. It is also in the chapter that the statistical methods of analyzing data are described and the ethical considerations are mentioned along with the possible methodological constraints.

Chapter Four: Data Presentation, Analysis, and Results gives the empirical data of the study. It will have descriptive analysis of the respondent characteristics, reliability and validity tests of the measurement scales and the inferential statistical tests which shall be done to test the research hypotheses. The findings are reported and discussed in accordance to the research objectives.

Lastly, Chapter Five: Discussion, Conclusion, Implications provides the summary of the main findings of the study and speaks about them within the context of the available literature and theoretical worldviews. The chapter emphasizes the theoretical and practical implications of the findings on the professionals working on a project and organisations, identifies the limitations of the study and provides recommendations on the organisation practice and future research on mindfulness and resilience in project-based working environments.

2 Literature Review

The chapter is a critical review of theoretical and empirical literature pertaining to mindfulness and resilience in the professional and project-based work environments. It talks about the conceptual basis of mindfulness and major dimensions of mindfulness and its applicability within an organizational context, especially in stress-filled and project-based occupations. Besides, the chapter effectively sums available empirical evidence to show the role that mindfulness plays in managing stress, regulating emotions, and functioning adaptively. This review can detect the gaps in the literature which justifies the purpose of the current study on project professionals.

2.1 Concept of Mindfulness in Organizational Contexts

Mindfulness has been a subject of growing interest in the field of organizational and occupational psychology as a viable psychological process that can be used to reduce stress, improve the well-being of employees, and assist them to adapt to challenging work situations. The contemporary organizations are typically typified by the fast change, intense workload, high-level deadlines and ongoing performance reviews. In this case, employees must make several demands at once as they have to be productive and remain psychologically stable. Mindfulness is thus considered an important internal psychological asset that can help people to be better off dealing with these burdens.

Regarding organizational level, mindfulness promotes sustained performance through the increased capacity of individuals to stay focused, balanced, emotionally, and cognitively flexible when faced with constant challenges. The increased mindfulness leads to an increased ability of employees to respond and not to react in a situation of stress, thereby leading to better decision-making and interpersonal functioning. Consequently, mindfulness became an established part of workplace wellness programs, stress management and leadership development programs.

Figure 1. Dimensions and Components of Mindfulness



2.1.1 Definition and Evolution of Mindfulness

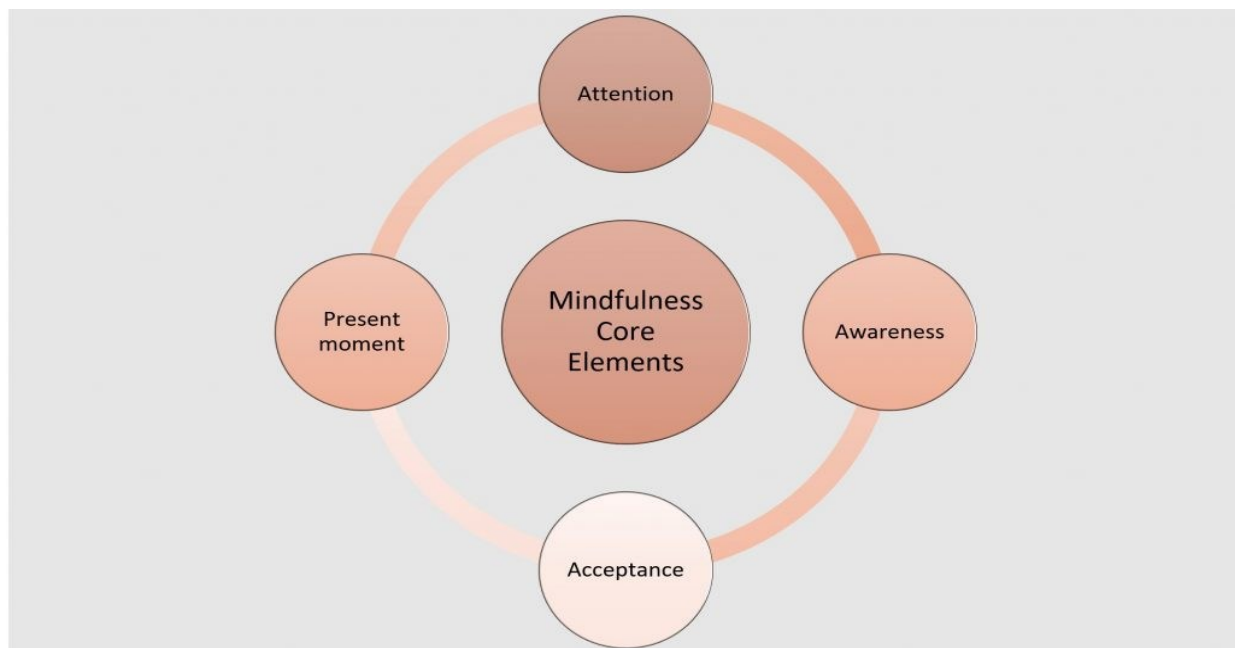
Mindfulness is generally considered to be the awareness in the present accompanied by a non-judgmental attitude towards both internal and external experiences (Kabat-Zinn, 1994, 2003). Mindfulness was originally motivated by contemplative and meditative traditions, but it was introduced into Western psychology as a secular practice directed at increasing the state of awareness and decreasing psychological distress. The concept has over time, had its own development beyond its clinical background and has been borrowed extensively in organizational and work-related situations.

Modern studies define mindfulness as a trait and a skill to be trained. Being a dispositional quality, mindfulness embodies the innate inclination of the person to be attentive and aware of his or her everyday life. Mindfulness is a trainable mindfulness capacity that can be developed using several structured programs, including mindfulness-based stress reduction programs, meditation, and reflective exercises. This two-sidedness has helped in the development of increased attention to mindfulness as an effective and available method of enhancing the well-being of employees, stress management, and adaptive performance in complex work settings.

2.1.2 Dimensions and Components of Mindfulness

Mindfulness is a multidimensional construct that involves cognitive, emotional, and attentional activities that determine how people perceive, interpret and react to stressors. Mindfulness is not a single state of mind but a combination of interrelated elements that interact to influence the adaptive functioning in the work environment.

Figure 2. Elements of Mindfulness



2.1.2.1 Present-Moment Awareness

Present-moment awareness is the conscious awareness of what is happening at the moment, both mentally and physically as well as the surroundings. Such aspect of mindfulness allows a person to stop being hooked on patterns of rumination regarding past experiences or worrying too much about the future. Present-moment awareness can be utilized in an organizational setting to make professionals stay completely engaged with the tasks at hand, improve their concentration, situational awareness, and efficiency of tasks. In the case of employees who are operating in dynamic environments, this kind of awareness facilitates responsiveness in responding to the emerging demands promptly and precisely.

2.1.2.2 Non-Judgment and Acceptance

With non-judgment, the observation of experiences without labeling them as good or bad and acceptance which can be seen as recognizing the existence of things as they are and not struggling against them. These elements combined lower emotional reactivity and result in psychological balance. Non-judgment and acceptance help professionals to be aware of the stressors in the work environment without being devastated by them in high-pressure work environments. The view creates emotional stability and minimizes chances to adopt maladaptive coping behaviors like avoidance or frustration.

2.1.2.3 Attentional Control and Emotional Regulation

The main processes where mindfulness governs behavior and performance are attentional control and emotional regulation. Attention control enables people to control and maintain attention on pertinent activities, whereas emotional control enables one to effectively handle strong emotions. Mindfulness helps professionals acquire the ability to become more aware of their emotional responses at an early stage and to manage them positively. This makes one more resilient, minimizes stress-related errors, and helps make adaptive decisions in challenging work circumstances.

2.1.3 Mindfulness in the Workplace

Within the organizational setting, mindfulness has been linked to various positive effects, such as decreased stress, increased psychological health, increased job satisfaction, and better decision-making. Mindfulness among employees also increases the likelihood of them exhibiting adaptive coping, emotional intelligence and interpersonal effectiveness. Such traits come in handy especially in places where teamwork, problem solving and attention are needed.

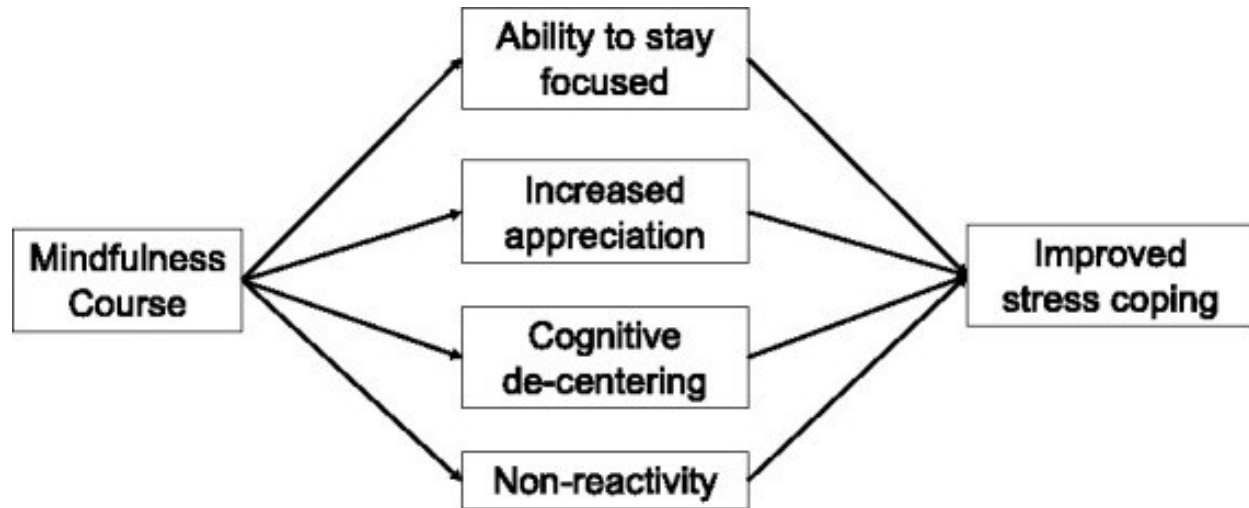
Mindfulness also brings about better organizational results in the form of a stronger and more engaged workforce. With conscious employees, they are more capable of dealing with work stressors, they can focus when they are under pressure and they can also see the positive side after failing. Consequently, companies are increasingly identifying mindfulness as a strategic instrument to enhance the welfare of employees and maintain performance in challenging and unpredictable markets.

2.1.4 Mindfulness in High-Stress Professions

The empirical reviews of the high-stress occupation, including healthcare, education, law enforcement, and emergency services, have shown that mindfulness is beneficial in alleviating burnout, emotional exhaustion, and perceived stress. Studies have revealed that mindfulness positively influences coping ability, emotion regulation, and psychological resilience in professionals who are subjected to unremitting emotional and cognition pressures (Rees et al., 2020; Ma et al., 2022; Gregory et al., 2021).

These results demonstrate the effectiveness of mindfulness as an intervention to ensure mental health and adaptive functioning in the professional sphere where many people constantly face high responsibility, uncertainty, and emotional demands. The similarity of findings in different working conditions supports the applicability of mindfulness as a crosscutting psychological tool in the management of work-related stresses.

Figure 3. Health professions students' Reports of how Mindfulness Helped Them Cope During COVID-19



(Source: Luberto et al., 2020)

2.1.5 Mindfulness in Project-Based and Technical Professions

The high-levels of uncertainty, time pressure, performance accountability, and complexity of the stakeholder are peculiar to project-based and technical professions. The work of professionals in these functions is often fraught with a large number of conflicting priorities that have to be solved quickly, in the design of different teams, under limited time limits. The conditions impose a lot of psychological pressure on the people and raise the chances of stress and burnout.

Experimental research of construction specialists, IT employees, and project managers has shown that mindfulness is an essential aspect of improving focus, quality of decisions, stress management, and resilience in project-based settings (Qi Liang and Leung, 2015; Diaz et al., 2021; Montes et al., 2021). Mindfulness helps project professionals to be cognitively adaptive, emotionally stable and alert to the ever changing project work. Such attributes enable one to go through the complicated project life cycles and maintain performance in the long term.

2.2 Concept of Resilience in Professional Settings

Resilience is a well-known mental ability of significant importance to professionals to effectively deal with stress, adjust to misfortune, and maintain performance even in challenging workplaces where it is needed. Workload pressure, performance accountability, uncertainty, and rapid change are some of the sources of constant pressure that workers are experiencing in modern organizations. In these circumstances, resilience is critical in safeguarding people against the adverse psychological effects such as burnout, emotional fatigue and diminished work performance.

Organizational resilience is not only an important factor in terms of individual wellness but also in terms of productivity, engagement, and sustainable organizational performance. Strong professionals will be more resilient in coping with adversities, rebounding, and further operating despite the negative conditions. Resilience has, therefore, become a central construct in the study of occupational psychology and occupational behavior, especially when it comes to high pressure and performance-oriented working environments.

2.2.1 Definition and Nature of Resilience

Resilience is usually described as adaptation that comes with a positive adaptation, recovery, and functioning of the psychological faculties when experiencing stress or disruptive incidents. In contrast to the previous approaches to resilience as a fixed personality characteristic, the most recent studies also assume that resilience is a dynamic and developmental process which may be reinforced over the lifetime (Richardson, 2002; Masten, 2001, 2014).

The resilience framework proposed by Richardson (2002) focuses on the fact that when people are subjected to stressors, they are disrupted but, with the help of adaptive coping styles and available protective psychological resources, they will be able to reintegrate into functioning on the same or even a higher level. In the same manner Masten (2001, 2014) refers to resilience as ordinary magic, as in fact, resilience is created through ordinary human adaptive systems, not extraordinary abilities. This process understanding implies that resilience is recommended to be

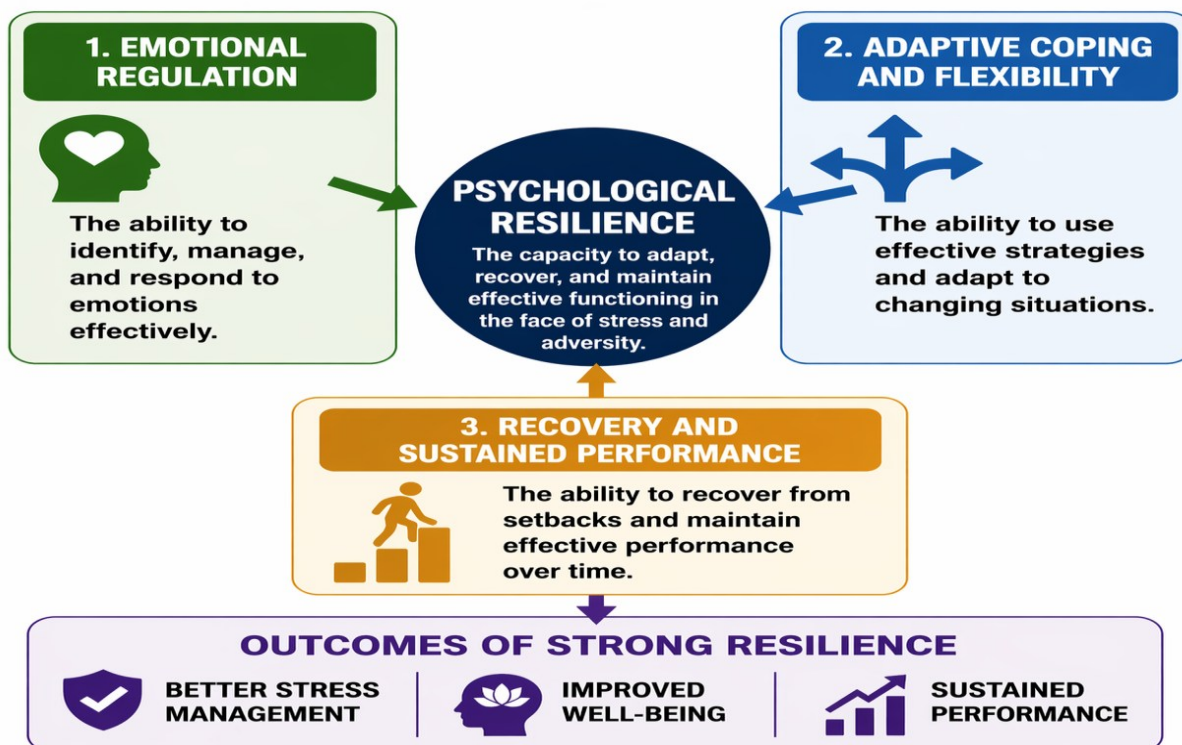
nurtured and improved by psychological capabilities, amiable settings, and organizational habits.

This dynamic quality of resilience is especially applicable in professional environments because employees have to be constantly confronted with shifting demands, uncertainty, and pressure. The concept of resilience as an evolvable ability fits in the organizational initiative to enhance the well-being and performance of the employees based on specific interventions.

2.2.2 Components of Psychological Resilience

Psychological resilience is depicted as a multidimensional construct which consists of a number of interrelated processes which, together, facilitate adaptation, recovery and continued functioning in the face of stress. These elements allow people to cope with the difficulties and stay psychologically stable in challenging work situations.

Figure 4. Psychological Resilience



2.2.2.1 Emotional Regulation

Emotional regulation is the capacity of a person to identify, regulate and react positively to emotional events. Conflict, time pressure, and performance evaluation are some of the most emotionally charged situations employees are often faced with in the workplace. The proper management of emotions enables the person to be able to control their emotions, avoid emotional breakdown and act in a rational manner instead of making rash decisions.

Strong professionals can more effectively control such negative emotions as anxiety, frustration, and anger and thus safeguard psychological health and assist in effective interpersonal communication. Emotional control is a very fundamental aspect of resilience as it helps an individual to be in a stable psychological state and stay focused during stress.

2.2.2.2 Adaptive Coping and Flexibility

Adaptive coping and flexibility can be defined as the ability to use successful strategies of problem solving and adapt responses to the situation. Instead of hard or avoidance-focused coping strategies resilient individuals are flexible in their strategies of dealing with challenges. This entails the capacity to reinterpret stressors, find relevant support, and adjust the strategies in case of changing circumstances.

Adaptive coping enables professionals to deal with uncertainty and complexity in dynamic work environments in a more effective way. Flexibility also improves resilience because it helps people to react positively to unforeseen challenges and feel that they are in control even in the changing circumstances.

2.2.2.3 Recovery and Sustained Performance

The resultant aspect of resilience is recovery and sustained performance. Recovery is defined as the capacity to be psychologically stable following a stressful event or any disappointment, and sustained performance is the capacity to be effective over a protracted demand. Stronger people can bounce back faster when they are stressed leading to the accumulation of adverse consequences of continued stress.

Sustained performance has been found to be important in professional settings, especially where employees are expected to provide consistent delivery over a period of time. This is aided by resilience that helps avoid the negative effects of chronic stress on motivation, focus and quality of work.

2.2.3 Resilience in High-Stress Work Environments

Studies in workplaces that have high levels of stress like in the healthcare setting, education setting, emergency service setting and the law enforcement setting have continually shown the significance of resilience to both psychological health and work performance. There is empirical evidence that greater resilience is related to lower burnout, less emotional exhaustion, better mental health, and more work effectiveness (Joseph and Jose, 2020; Williams and Johnson, 2021).

The individuals working in these fields are often exposed to stressful emotional circumstances, responsibility and time restriction when making decisions. Resilience helps them to manage such issues without disrupted professional performance and personal health. These results highlight resilience as one of the protective psychological variables, which reduces the adverse effects of occupational stress.

2.2.4 Resilience Among Project Professionals

Project professionals have work environments which have a tight working schedule, a high level of uncertainty, a complex association among the stakeholders and ongoing performance pressure. Project work is normally short-term and focused on achieving objectives and, in this context, it demands professionals to produce results under a limited time constraint and limited resources. The conditions place the project professionals under long-term psychological stress in various stages of the project life cycle.

Resilience is thus required of the project professionals to be psychologically stable, flexible to changing project demands and to bounce back during setbacks in the form of delays, project conflicts, or unforeseen difficulties. Strong project professionals can more efficiently deal with

uncertainty, keep motivation and effective performance during the project time. Therefore, the knowledge of resilience in the framework of project-based work is vital to the welfare of a person and the achievements of a project.

2.3 Theoretical Review

The research is based on the formed psychological and organizational theories to understand the role of mindfulness as the source of resilience, especially in stressful, changing work settings. The theoretical lenses offer a conceptual framework on how people respond to stress, adjust to adversity and maintain their long-term performance. These theories provide precious insights regarding the importance of mindfulness as a psychological resource that facilitates resiliency in the context of project-based work activities, when professionals are working under the conditions of constant uncertainty, performance pressure, and time constraints. In the current study, the main theories relied on are Mindfulness Theory, Resilience Theory and Conservation of Resources (COR) Theory used to describe the connection between mindfulness and resilience among project professionals.

2.3.1 Mindfulness Theory

The Mindfulness Theory is most strongly related to the work of Jon Kabat-Zinn who distinguished mindfulness as the present moment awareness and openness, curiosity, non-judgment to the internal and external experiences (Kabat-Zinn, 1994, 2003). This theory states that mindfulness is a conscious awareness of thoughts, feelings, physical sensations, and surroundings that are observed with no automatic response and evaluation. This increased mindfulness enables people to stop following the usual thought and emotional mechanisms that tend to increase stress.

In the context of this theory, mindfulness boosts self-regulation through attentional control and emotion awareness. Mindful people are in a better position to detect when they are under stress at an early stage, manage emotion, and practice adaptive behaviors as opposed to reacting impulsively. This ability helps in making sound decisions, emotional stability and

positive interpersonal interactions in organizational contexts. Mindfulness Theory thus discusses how mindfulness minimizes the detrimental effects of stress encouraging resilience and adaptive responses instead of avoidance or emotional activity.

The Mindfulness Theory is a clear explanation to project professionals whose jobs require decision-making at any given moment and under time stress due to the uncertainty in the situation. Mindfulness can help project professionals to stay focused, handle complicated requirements, and react dynamically to project-related stressors by promoting composure, mental clarity, and emotional stability. Therefore, it is based on the Mindfulness Theory that the increased resilience of project-based working environments will be linked to higher levels of mindfulness.

2.3.2 Resilience Theory

The Resilience Theory is a dynamic and developmental perspective of resilience in which individuals respond to stress, adversity and disruption with a positive response. Instead of viewing resilience as an inert character trait, modern resilience theorists lay stress on the processual character of resilience. According to the resilience framework put forward by Richardson (2002), when a person is exposed to stressors, the person will be disrupted but with the help of adaptive coping behaviors and the various psychological resources, the person can reintegrate the same or even a higher functioning level. This process brings out the fact that resilience is a resultant process of interaction between the environmental demands and individual capacities.

In a similar vein, Masten (2001, 2014) explained resilience as ordinary magic, where resilience is because of ordinary adaptive systems (regulatory of emotions, flexible thinking, and social support) as opposed to the extraordinary attributes. In this sense, the concept of resiliency can be made available to everyone, and it can be enhanced with the help of learning, experience, and organizational support practices.

Resilience Theory in the context of a professional setting describes how people manage to perform and remain psychologically well despite the long-term stress. The most important

elements of resilience development are internal resources of emotional regulation, self-awareness, and adaptive coping. Mindfulness can be considered parallel to those processes because it helps to be more aware of what is happening inside the body and is flexible and adaptive to stress. Thus, the Resilience Theory has a solid conceptual foundation to explain the role of mindfulness in resilience because mindfulness leads to adaptive reintegration after stress or adversity.

In the case of project professionals, consuming a fair share of disappointments (like schedule slippage, stakeholder conflicts, and requirement change), resilience is the key to psychological stability and further functionality. Resilience Theory justifies the idea that mindfulness enhances the feasibility of responses, which project professionals need in response to adversities of projects to maintain the performance during the project life cycles.

2.3.3 Conservation of Resources (COR) Theory

Hobfoll came up with the Conservation of Resources (COR) Theory which provides a resource-based explanation of stress and resilience (1989). COR Theory states that people have the motivation to accumulate, preserve, and safeguard valuable resources, such as personal traits, emotional resistance, thinking abilities, and mental health. Stress is caused when such resources are at risk, are lost or are inadequate to satisfy situational needs. In this regard, resilience is the ability of an individual to conserve, recover, and accumulate resources in response to stress.

The concept of mindfulness within the COR frame is understood as a useful psychological asset, which aids in emotional regulation, cognitive acuity, and attention. Mindfulness assists people in decreasing rumination, emotional depletion, and intellectual overload by encouraging individuals to be mindful and accepting of the present. Mindfulness helps in conserving resources as it reduces unnecessary emotional and cognitive expense, eliminating the chances of excessive drainage of resources (Hobfoll, 2001).

Moreover, COR Theory holds that resource gains may result in positive gain spirals, according to which persons with high levels of psychological resources are better placed to gain more

resources than time goes by. It is also empirically only to show that mindfulness is a factor that leads to such cycles of gain by improving coping capacity, emotional stability, and resilience within organizations (Hobfoll et al., 2018). Among project professionals operating in high-demand settings, mindfulness can allow them to make better use of their psychological resources and remain resilient in performance in spite of the stressors they daily experience.

Collectively, the Mindfulness Theory describes how the awareness of the present moment leads to better self-regulation and responsive stress, Resilience Theory describes how people recover and develop after hardship, and the Conservation of Resources Theory describes how mindfulness is a protective psychological factor. The combination of these theoretical approaches offers an overall theory of how mindfulness affects resiliency in project professionals. A combination of these theories would go along with the postulation that mindfulness contributes to resilience by improving emotional regulation, preserving psychological resources, and adaptive responses to stress in the work environment of projects (Hobfoll et al. 2018)

2.4 Relationship Between Mindfulness and Resilience

Mindfulness and resilience connections in organizational and occupational psychology have progressively been of interest because of the recent realization of mindfulness as a major psychological tool to undertake stress and facilitating adaptive functioning. The highly demanding workplace settings subject to professionals often involve a steady flow of stress, ambiguity, and performance pressure that are difficult to endure psychologically. Mindfulness is one such mechanism that has been found to increase the ability of individuals to deal with such challenges, by increasing their emotional regulation, cognitive flexibility and adaptive coping mechanisms. Consequently, mindfulness is currently being perceived as a precursor of resilience in workplaces, including project-based environments.

2.4.1 Psychological Mechanisms Linking Mindfulness and Resilience

Physiological processes in the body that facilitate adaptive reactions to stress are related and mutually reinforced by mindfulness and resilience, according to various psychological mechanisms. Better emotion regulation is among the main mechanisms. Conscious persons can more easily identify and respond to our emotional responses upon their occurrence, lessening the severity and time span of our negative affective experiences of anxiety, frustration, and stress. This emotional awareness helps to act upon the difficult situations with more calmness and control which is a critical factor in resilient functioning.

Attentional control is another important process. Mindfulness enhances the capacity to focus and maintain on the current activities instead of being distracted by stress related thoughts and external pressures. This increased level of attentional capacity enables the individual to stay in attention and cognitively clear in challenging circumstances so as to encourage proper problem solution and decision making. Less rumination is also another factor that is crucial in mindfulness-resilience relationship. Minimizing negative repetitive thoughts on the past failures or future uncertainties, mindfulness helps to avoid the build-up of psychological load, and helps to avoid emotional burnout of a person.

Moreover, mindfulness fosters psychological flexibility which is the ability to adjust thoughts and behaviors to suit a changing situation. Psychological flexibility allows one to take a situation that is difficult to avoid and also adapt strategies when confronted with a challenge. Collectively, these processes enable conscious individuals to overcome failures faster, be psychologically stable, and perform in the long-term. These mechanisms are especially useful to project professionals working in dynamic and uncertain environments, although they can assist with coping processes in multiple project lifecycle phases in an adaptive way.

2.4.2 Mindfulness as a Predictor of Resilience

Empirical studies continue to accumulate consistently so as to indicate that mindfulness is an important predictor of resilience among a large variety of occupational populations. Research carried out with healthcare workers, educators, information technology professionals and

project managers suggests that people that have more mindfulness report increased resilience, improved stress management skills and increased psychological health (Harper et al., 2021; Zhang and Dong, 2020). These results imply that mindfulness is a psychological capacity underlying resilience that helps individuals to cope with stress and adjust to misfortune.

Mindfulness has a direct and an indirect predictive effect on resilience through improving emotional regulation and attentional control and adaptive coping mechanisms. Mindful people tend to tackle issues with openness and acceptance and not avoidance and emotional reactivity. It is a proactive working with stress factors that helps to cope with it better and recover quicker after misfortune. In project oriented settings whereby individuals have to contend with deadlines, uncertainty, and performance stress, mindfulness is an important predictor of resilience as it allows an individual to be focused, emotionally stable, and flexible during project implementation.

2.4.3 Organizational Implications of Mindfulness-Driven Resilience

Organization On the organizational level mindfulness-based resilience has significant implications on long-term performance, employee well-being, and organizational flexibility. Organizations that promote mindfulness in employees have higher chances of having a strong workforce with the capacity to cope with stresses, overcome setbacks and be extremely high-performance wise. According to research, resilience based on mindfulness is linked with less burnout, less absenteeism, job satisfaction, and work engagement (Miller and Grant, 2021; Turner et al., 2021).

Organizational adaptability is also supported through mindfulness-based resilience, which is associated with cognitive flexibility, effective communication and collaborative problem-solving. Resilient employees are in a better position to overcome organizational change, cope with uncertainty as well as responding positively to the emerging challenges. Mindfulness-based resilience helps in individual and collective efficiency in project-based organizations where resilience is necessitated by the capacity to change according to the requirements and expectations of the stakeholders.

Moreover, mindfulness-based programs as part of organizational health and professional development programs offer a long-term solution to improving resilience. Investing in mindfulness could help organizations enhance psychological resources in project professionals, minimize the adverse effects of work-related stress, and foster the sustainability of the organization in the long term.

2.5 Empirical Review

In this section, empirical studies discussing the importance of mindfulness in managing stress, resilience, and psychological well-being in different professional settings are reviewed. The studies examined cover high-stress jobs in the health care and emergency services, education, social work, corporate settings, and profession-based projects. Combined, these works represent the empirical evidence of the relevance of mindfulness as a psychological resource in addition to the gaps that allow the attention to project professionals given by the current study.

2.5.1 Mindfulness and Stress Management in High-Stress Professions

Existing empirical evidence supports the claim that mindfulness is an important factor to alleviate stress and emotional burnout in high-stress occupations. Qi Liang and Leung (2015) studied the impact of mindfulness-based stress reduction on the construction professionals and discovered that mindfulness had a significant impact on various types of stress in the occupation such as emotional stress, physical stress, and cognitive stress. Certain mindfulness qualities that were found especially effective in reducing workload-related and time-related stress included non-judgment, non-reactivity, and self-compassion.

On the same note, Walters and Simpson (2021) examined mindfulness among high-pressure careers such as finance, law, and healthcare. Their results showed that mindfulness interventions had a strong negative effect on perceived stress and cognitive flexibility, which allowed the professionals to better adapt to the stressful work conditions. All of these studies point in the direction of mindfulness as a means of stress management in jobs of high responsibility, high performance stress, and less time to recover. Nevertheless, stress reduction

is well-reported and resilience is usually discussed as a secondary or indirect measure as opposed to a primary one.

2.5.2 Mindfulness-Based Interventions and Resilience in Healthcare and Emergency Services

Empirical research that has been undertaken in healthcare and emergency service contexts is in agreement with the efficacy of mindfulness-based interventions to promote resilience and reduce burnout. Joseph and Jose (2020) studied the effectiveness of mindfulness-based intervention in emergency nurses and discovered a drop in the emotional exhaustion, stress, and burnout levels at a significant level, and an increase in the resilience and coping capacity. The participants noted improved emotional regulation and enhanced psychological balance when dealing with the high level of demands of emergency care.

In the same way, Ma et al. (2022) examined the impact of mindfulness-based stress reduction in the COVID-19 pandemic and discovered that mindfulness improved resilience and stress among medical workers considerably. The results highlight the role of mindfulness as an essential psychological instrument whenever facing crisis and prolonged stress. Although these studies offer good evidence of mindfulness-resilience connection, they are mainly carried out in a healthcare setting which makes it hard to generalize these findings to other groups of professionals like project professionals.

2.5.3 Mindfulness and Resilience in Education and Social Work Contexts

Education and social work studies have also been reinforcing the positive association between mindfulness and resilience. The study by Weihs (2018) examined the impact of mindfulness training on teaching professionals and revealed that mindfulness had a positive correlation with resilience, emotional control, and burnout reduction. Though the study gave small effect sizes with a small sample size, it gave important evidence that mindfulness is beneficial in emotionally intensive careers.

According to Roulston et al. (2022), mindfulness training was investigated in a study on undergraduate social work students and the researchers found that resilience, stress reduction,

and mental well-being significantly improved upon the completion of mindfulness training. Since social work studies and practice are emotionally charged, the results depict mindfulness as a practical tool in the preparation of resilience. These works underline the applicability of mindfulness to occupations that entail emotional work but most of them revolve around helping professions as opposed to performance-oriented project settings.

2.5.4 Mindfulness, Psychological Well-Being, and Resilience Across Workforce Groups

In addition to particular professions, there is also empirical research that reflects close relationships between mindfulness, psychological well-being, and resilience among various segments of the workforce. The study by Sarwar et al. (2022) concluded that mindfulness is a useful intervention and contributed to a better psychological well-being and resilience among the millennials, especially by increasing emotional regulation and stress management. Likewise, Oh et al. (2022) have found that mindfulness exercises had a positive effect on resilience and well-being among professional workers, which means that mindfulness is a resource that can be used to combat stress in the contemporary workplace.

The researchers concentrated on IT professionals and discovered that mindfulness increased cognitive flexibility, emotional stability, and resilience in a highly demanding technical context (Montes et al., 2021). These results indicate that mindfulness is beneficial to adaptive functioning in various work settings. Nevertheless, even though these studies involve knowledge-intensive and performance-oriented jobs, they do not directly point out on the peculiarities of the project-based work.

2.5.5 Mindfulness, Leadership Development, and Organizational Resilience

Empirical research also shows that mindfulness helps in the development of leadership and resilience in an organization. Tenschert et al. (2021) compared the impact of mindfulness with that of self-leadership training and discovered that both training programs brought about substantial benefits in terms of emotional regulation, decision-making, and resilience in business professionals. Mindfulness helped leaders to deal with stress better and react appropriately to organizational situations.

Manson and Murphy (2020) examined the concept of mindfulness in educational leaders and found that after a mindfulness training, the leaders experienced improved resilience, emotional stability, and leadership efficacy. These articles indicate that not only people, but the organization will be more resilient with mindfulness that can enhance adaptive leadership and better stress management. Nevertheless, the leadership-oriented approach tends to ignore the non-managerial project professionals that would experience similar amount of pressure and responsibility.

2.5.6 Mindfulness and Resilience in Project-Based and Construction Contexts

The empirical studies in the project-based and construction settings have already started to recognize the applicability of mindfulness, yet the concept of resilience is not usually studied as one of the key outcomes. Diaz et al. (2021) examined the topic of mindfulness in project managers and discovered that mindfulness could considerably decrease perceived stress and enhance focus, decision-making, and performance. Although these results imply an increased adaptive capacity, resilience was not directly measured and analyzed.

In the same way, Leung et al. (2019, 2021) investigated mindfulness-based stress reduction in construction professionals and found out that the participants improved emotional regulation, stress management, and task performance. The following studies point to the concept of mindfulness as an effective means of dealing with the specifics of the project-based workload, including time-related stress and the pressure of the stakeholders. Nevertheless, the concept of resilience is often considered as an implicit outcome, not an outcome variable, which indicates the high gap in literature.

In general, there is solid empirical evidence that mindfulness can help reduce stress, emotional regulation and adaptive functioning in a broad variety of professional settings. Although resilience is often mentioned as a result of mindfulness-based intervention, the direct quantitative investigation of the mindfulness-resilience relationship between project professionals has not been conducted yet. This gap highlights the necessity of conducting systematic and quantitative studies that specifically address the topic of resilience as a

fundamental outcome in project-based work settings, which has led to the rationality of the current study.

2.6 Literature Gap

Despite the growing body of scholarly literature examining mindfulness and resilience in occupational and organizational contexts, several important gaps remain evident. First, most available research has been focused on such professions as healthcare workers, educators, law enforcement representatives, emergency service workers, students of social work, and ordinary workers in organizations. Although these studies all show that mindfulness can improve emotional regulation, stress management, and resilience (Christopher et al., 2020; Gregory et al., 2021; Ma et al., 2022), project professionals are a poorly studied occupational group in this literature. Since project-based work is inherently interim, deadline-oriented, and extremely uncertain and under pressure, results of more stable work conditions might not be entirely applicable to project professionals.

Second, despite the fact that mindfulness is explored in the context of projects (although the sphere of its application has been mainly limited to stress reduction, stress management, task performance, and quality of decision-making) (Qi Liang and Leung, 2015; Leung et al., 2019; Diaz et al., 2021), little theoretical attention has been given to the behavioral cause of stress and its impact on project outcomes. Resilience has been looked at as a secondary or implied consequence and not directly thought of and quantified as a fundamental psychological construct. This leaves a gap in the comprehension of the straight and systematic association between mindfulness and resilience in project-based professional settings.

Third, most of the current body of empirical research is based on intervention-oriented, pilot, or small-scale studies, which, although informative, do not allow making statistical conclusions and quantifying the strength and direction of associations between mindfulness and resilience (Weihs, 2018; Rees et al., 2020). The gap in terms of the large-scale quantitative and cross-sectional research conducted with the help of validated levels of measurement to test the

mindfulness-resilience connection between project professionals empirically is also quite significant.

Fourth, on an organizational level, mindfulness-based interventions are beginning to be included in the employee well-being and performance programs. Nonetheless, the existing literature does not have much occupation-specific evidence to inform the design of mindfulness interventions to meet the specific psychological needs of the project-based occupation. The lack of strong empirical research dedicated to the study of project professionals limits the possibilities of organizations to work out evidence-based strategies that should be specifically directed at the promotion of resilience in the conditions of project-driven organization.

Lastly, although the theoretical grounds of mindfulness and resilience have been proposed to have close conceptual relations (i.e., the conceptual overlap between Mindfulness Theory and Resilience Theory, the same can be said about the Conservation of Resources (COR) Theory), there is a paucity of literature that empirically combines theoretical concepts into a project professional setting. This implies a disconnect between propositions on theory and empirical support of projects in the working context.

To conclude, the literature review demonstrates that there is a definite gap in the study regarding the direct, quantitative investigation of the impact of mindfulness on resilience among project professionals. Closing this gap is crucial for the theoretical knowledge and for giving project management, organic health, and sustainable working performance in high-stress project situations, based on empirical evidence.

2.7 Summary

This chapter reviewed the theoretical and empirical literature related to mindfulness and resilience within organizational, high-stress, and project-based work environments. The review started with discussing the concept of mindfulness in organizations and its historical development, which started with the contemplative facet and evolved into a commonly used psychological construct in the field of occupational and organizational psychology. The concept

of mindfulness was defined as the present-moment awareness, which is non-judgmental and open-minded, as a dispositional trait and a skill that can be trained. The literature has been pointing towards the same direction that mindfulness is soothing attentional control, emotional regulation and adaptive coping and thus is specifically applicable in contemporary work settings in which uncertainty, performance load, and high cognitive load are eminent.

Mindfulness in high-stress career settings like healthcare, education, law enforcement, emergency services, IT, and construction was also discussed in the chapter. Evidence empirically gathered in these areas has shown that mindfulness lowers perceived stress, emotional exhaustion, and burnout and enhances psychological well-being, coping capabilities, and resilience. Research done in project-related and technical careers found that mindfulness enhances concentration, decision-making skills, and coping with stress, which promote adaptability and performance-based conditions. Nevertheless, the studies tend to focus on stress lowering and performance levels instead of explicitly analyzing resilience as one of its key psychological definitions.

The review then proceeded to discuss resilience as a major psychological ability within the professional settings. The concept of resilience as a process of developing and change as opposed to a trait is a modern literary idea that focuses on the capacities of individuals to adjust favorably, overcome crisis, and maintain the performance over a long term in face of stress. Some of the main elements of resilience that have been found in the literature are emotional regulation, adaptive coping, flexibility, recovery, and sustained performance. The results of empirical research in high-stress professions are in a consistent pattern that correlates resilience with decreasing burnout, better mental conditions, and work performance. Considering the stressful character of the project-based work, resilience turns out as an important trait of the project professionals who have to work within the rigid timeframes, uncertainty, and pressure by the stakeholders.

The conceptual review combined Mindfulness Theory, Resilience Theory, and Conservation of Resources (COR) Theory to describe the processes of the relationship between mindfulness and

resilience. The Mindfulness Theory describes the role of the present moment awareness in terms of improving self-regulations and adaptive responses to stress. The Resilience Theory interprets the dynamic mechanisms by which people come back and develop after adversity. The COR Theory conceptualises mindfulness as a potentially useful psychological resource that allows saving emotional and cognitive energy and avoid the depletion of resources to enhance resilience. Collectively, the theories offer a solid conceptual framework in explaining how mindfulness enhances resilience in the hectic workplace.

The empirical review was a synthesis of evidence in different professional settings and all studies indicated that mindfulness and resilience were positively correlated. Mindfulness-based interventions were reported to improve emotional control, coping ability and psychological comfort and decrease stress and burnout. Nevertheless, gap holes were also demonstrated in the review. Most of the empirical research is based on the healthcare workers, educators, students, and general employees, with little consideration of the project professionals as a separate occupational group. Moreover, the resilience is not always directly or even secondarily assembled and most studies are based on intervention-based or small samples, which restrict the ability to generalize.

Overall, the reviewed literature has solid theoretical and empirical evidence of the efficacy of mindfulness in promoting resilience in high-stress jobs. However, the direct, quantitative study of the role of mindfulness on resilience among project professionals is still evidently missing. The gap has to be addressed to expand the existing theory, reinforce the empirical evidence, and to guide the evidence-based organizational practice in project-oriented working conditions. The present study is therefore justified in its focus on quantitatively examining the influence of mindfulness on resilience among project professionals.

3 Research Methodology

3.1 Research Design

The study employed a quantitative research design to assess the levels of mindfulness and resilience among project professionals, as well as to explore the influence of mindfulness on resilience. A descriptive design was used for the first two objectives, which aimed to assess the levels of mindfulness and resilience. Descriptive statistics were employed to summarize and describe these variables. For the third objective, the study adopted a correlational design to examine the relationship between mindfulness and resilience. This design allowed the researcher to gather the numerical data from the participants, and analyze the data statistically in order to test the hypotheses set up concerning the effect of mindfulness on resilience.

3.2 Sample Size

There were 52 project professionals involved in the study. In this, a convenience sampling method was used in which the researcher focused on a group of professionals who were available and readily responded to the call to participate in the study. This sample size (N=52) was determined according to the statistical methods to be applied in the analysis. The sample size is suitable for correlation and regression analysis, which are the two major statistical techniques to examine the relationship between the variables of mindfulness and resilience in this study.

3.3 Data Collection Procedure

3.3 Data Collection Procedure This study used a self-report questionnaire as data tools using Google Forms. This online survey tool enabled the respondents to complete the survey at their own speed for a higher return rate and a more efficient collection of data. The questionnaire was split up into two primary topics:

Demographic Information: This section gathered background information about the participants, such as their age, gender, highest level of education completed, current job title, and years of experience in project-based work. Such demographic information was helpful in getting a grasp on the composition of the sample and were incorporated into the analysis as potential control variables.

Two widely validated psychometric scales were given to the participants to fill out:

Mindful Attention Awareness Scale (MAAS): The MAAS is 15 item scale to assess dispositional mindfulness (one's overall tendency to be mindful or mindless in daily life). This scale uses a 1-6 Likert scale where participants indicate how often they experience the described behaviors, such as "I could be experiencing some emotion and not be conscious of it until sometime later" or "I break or spill things because of carelessness, not paying attention." Higher scores on the MAAS reflect higher levels of dispositional mindfulness, which is associated with greater awareness and attention to present experiences.

Connor-Davidson Resilience Scale (CD-RISC-10): The CD-RISC-10 is a shortened version of the original Connor-Davidson Resilience Scale, consisting of 10 items designed to assess resilience, or the ability to bounce back from adversity. Participants rated statements such as "I am able to adapt when changes occur" and "I can deal with whatever comes my way" on a 5-point Likert scale ranging from 0 (Not true at all) to 4 (True nearly all the time). Higher scores on the CD-RISC-10 indicate greater resilience.

By utilizing Google Forms, the data was collected efficiently, and responses were entered into the form, reducing the possibility of data entry mistakes.

3.4 Instrumentation of Data

Well-established scales, with good normative statistics, were used in this study to reliably measure the construct of mindfulness and resilience.

Mindful Attention Awareness Scale (MAAS): Developed by Brown and Ryan (2003), MAAS is a dispositional state mindfulness scale which measures an individual's tendency to be mindful in everyday life. It includes 15 items measured on a 1-6 Likert scale with higher scores corresponding to a higher frequency of mindful states. The MAAS reflects one's awareness and attention in the present moment, and past studies have indicated good correlation with positive emotional states, greater well-being, and less negative affect.

Connor-Davidson Resilience Scale (CD-RISC-10): The Connor-Davidson Resilience Scale (CD-RISC) is a 10-item shortened version of the original, developed by Connor and Davidson (2003). It measures how well people cope and deal with stress and difficulty. The scale was created by factor analysis and consists of one dimension, "resilience. The CD-RISC-10 is rated on a 5-point Likert scale from 0 (Not true at all) to 4 (True nearly all the time) for which higher scores represent higher resilience. The CD-RISC-10 has been utilized with a variety of populations with good reliability and validity.

Scoring Procedures: Raw scores from both instruments were analysed as per the standard procedures set by the scale developers and an effort was made to ensure that the scores are comparable with the existing literature.

Firstly, the completeness of all 15 items was checked. The MAAS is a measure of mindless states. The items are specifically phrased and standardized (1 = almost always, 6 = almost never) so as not to necessitate reverse coding. An increase of the scores on each item is directly related to the more often the person is mindful (the less mindless the person is), in the relevant domain. The total scale score was calculated as the sum of the 15 item scores divided by 15 to give the mean score for each individual. The possible mean scores are from 1-6 with higher scores representing higher mindfulness. A mean score was utilized for all the subsequent descriptive and inferential analysis. A mean score (not sum) allows for interpretation and comparison with other studies.

Connor-Davidson Resilience Scale (CD-RISC-10): The CD-RISC-10 consists of 10 positive statements that are rated on a 5-point Likert (0 = Not true at all, 4 = True nearly all of the time).

There is no need to reverse score any item. Each of these 10 items was added together to provide a total scores of resilience for each participant. The higher a person scores, the more psychologically resilient and able to adapt to stress and adversity. The total score (not a mean) was kept in analysis of the data as the scale was originally validated and has been used in many studies as a total score in occupational and clinical settings.

Data Processing: After data cleaning process, scoring was done in IBM SPSS Statistics. For inferential analyses, mean substitution was used at scale level only when there were very few (less than 5% per case) or no missing values, depending on the pattern of missingness observed. The scale scores were checked for normality, outliers and internal consistency (Cronbach's alpha) before hypothesis testing. Both the instruments were translated into and administered in their original English language. Since the target group were project professionals operating in an international or English-medium context, it was assumed that participants did not need extra help learning English; this is considered as a potential limitation.

3.5 Data Analysis Plan

Data were analyzed using descriptive statistics to present characteristics of the sample and then results of mindfulness and resilience scales. This gave an indication of the levels of mindfulness and resilience of the group of project professionals under study. Hypotheses and relationship between mindfulness and resilience were tested by Inferential statistics.

Descriptive Statistics

Data from the demographic variables and the mindfulness and resilience outcome scores were analyzed with descriptive statistics. These were the means (or average rating) and standard deviations (or variability of the ratings) of each item on the MAAS and CD-RISC-10 scales.

Pearson Correlation

Pearson correlation was used to determine the relationship between mindfulness and resilience in terms of strength and direction. A correlation coefficient (r) was calculated; values

closer to +1 and -1 are indicative of a stronger relationship, and a value $p < 0.05$ is suggestive of statistical significance. This test aims to find out whether mindfulness makes a significant difference to resilience among project professionals or not.

Multiple Regression Analysis

A multiple regression analysis was used to determine if increased mindfulness was significantly associated with increased resilience. The regression equation used was:

$$\text{Resilience} = \beta_0 + \beta_1(\text{Mindfulness}) + \epsilon$$

Where:

- Resilience is the dependent variable
- Mindfulness is the independent variable
- β_0 is the intercept
- β_1 is the slope coefficient
- ϵ is the error term

The regression analysis provided insights on inclusiveness of mindfulness as a significant predictor of resilience and the extent of the influence.

3.7 Ethical Considerations

There were several ethical issues that were respected throughout data gathering and data evaluation to assure the integrity of the study. The informed consent process was used to explain the purpose of the research to the participants and to tell them of their role in the research. The participation was on a voluntary basis and it was possible to withdraw from the study without any consequences.

All responses were anonymized and there was no collection of personally identifiable information to assure confidentiality. Data was collected in a safe manner and only for academic purposes. Ensuring the study was conducted with respect to the rights and privacy of the participants, the ethical considerations helped ensure this.

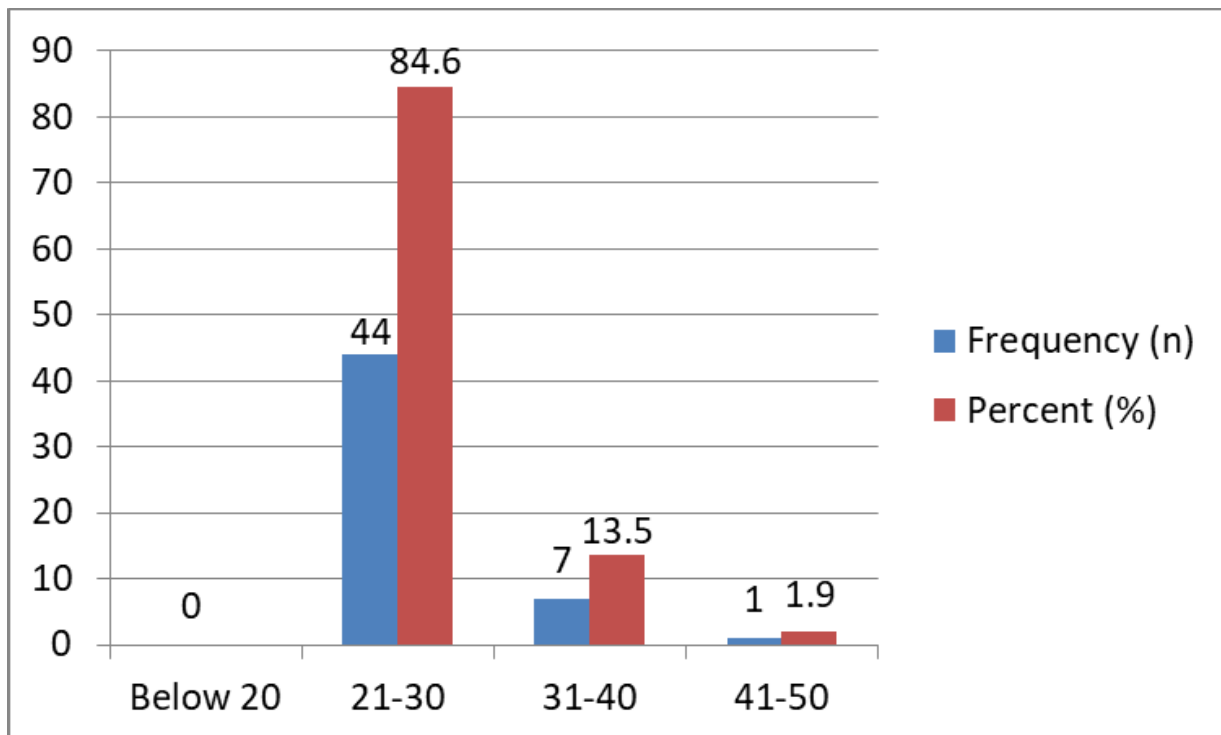
4 Data Analysis

The findings from the data analysis to test the hypotheses on the effect of mindfulness on project professionals' resilience are presented in this chapter. Descriptive and inferential statistics were used and data was collected from 52 participants. Descriptive data section: Descriptive data section includes an overall description of the sample, the Mindfulness scale summary and the Resilience scale summary.

4.1 Demographic Characteristics

The age, gender, highest education level, current job position and years of experience with project work are all demographic information that were gathered as part of the study. Each of the demographic variables is broken down in detail below.

Figure 4. Frequency Distribution of Age



The Frequency Distribution of age group of the participants is shown in Figure 5. Majority of participants (84.6%) were in the 21-30 years old group. The study attracted mainly younger project professionals as they tend to be more available to complete survey-style research and are well represented in project-based roles. There were a fewer number of mid-career professionals in this sample, with the 31-40 age group making up 13.5%. There were a sizeable underrepresentation of older professionals, with only 1.9% being in the age group 41 - 50 years.

Table 1. Frequency Distribution of Gender

Gender	Frequency (n)	Percent (%)
Male	44	84.6
Female	7	13.5
Prefer not to say	1	1.9
Total	52	100

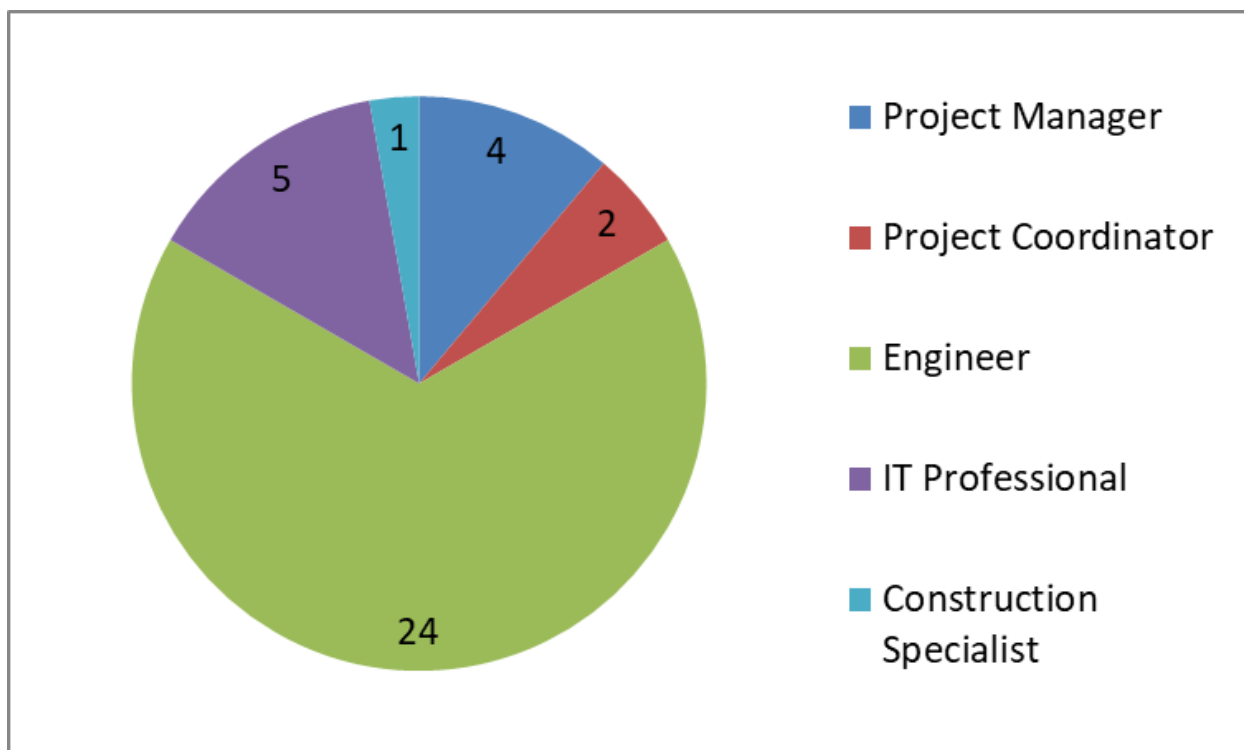
The distribution of subjects by gender is given in Table 1. The overwhelming majority of the sample (84.6%) were male with females making up 13.5% of the sample. A small number of (1.9%) responded prefer not to say. This gender distribution indicates that the sample in the study might be male-dominated, which could potentially impact results if there is gender-specific impact on workplace mindfulness or resilience.

Table 2. Frequency Distribution of Highest Level of Education Completed

Education Level	Frequency (n)	Percent (%)
High School	4	7.7
Bachelor's Degree	33	63.5
Master's Degree	15	28.8
Total	52	100

Table 2 shows the number of participants by the highest education attained. The educational qualifications of the participants was mostly Bachelor's degree (63.5%) followed by Master's degree (28.8%). A lower percentage of respondents reported being only High School educated (7.7%). This suggests that the sample is well-educated with most having higher education, which is common for project-based positions that tend to involve technical knowledge and skills.

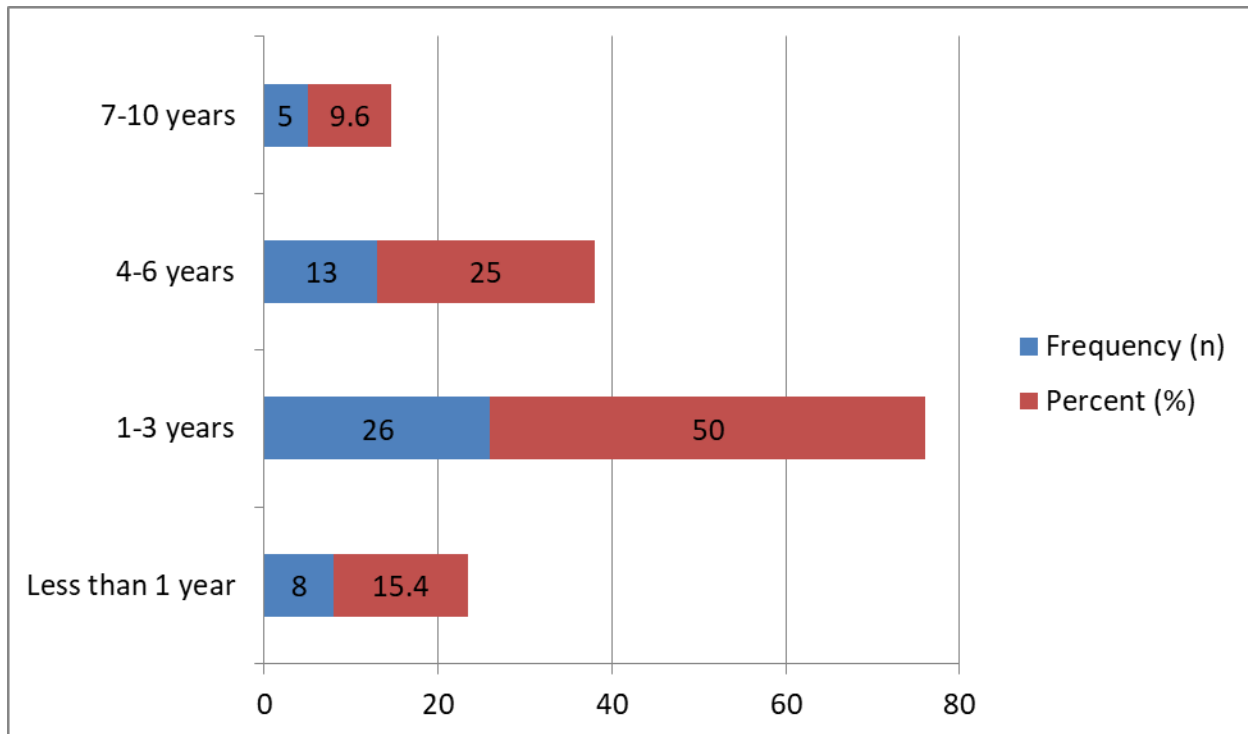
Figure 5. Frequency Distribution of Current Job Title



The gender distribution as per the latest job title is shown in Figure 6. Engineer was the most common job title reported (46.2% of respondents). There were 30.8% job titles which were other such as project managers and coordinators. There was a lower percentage of participants identified as Project Managers (7.7%), IT Professionals (9.6%) and Construction Specialists (1.9%). Job titles show a range of knowledge-based professions involved in this project

management, including a variety of professions across the range of project-based occupations, giving a cross-section of mindfulness and resilience in these roles.

Figure 6. Frequency Distribution of Years of Experience in Project-Based Work



The number of participants is divided into their years of experience in project-based work in Figure 7. The number of years most participants had ranged from 1-3 years of experience (50%) & 4-6 years of experience (25%). A smaller percentage (9.6%) participants had 7-10 years' experience and 15.4% had less than 1 year's experience. This indicates that the sample is mainly made up of younger (relatively recent) project workers which may influence their own level of mindfulness and resilience while coping with early challenges in their careers. The report below shows the descriptive statistics for Mindfulness and Resilience.

4.2 Descriptive Statistics for Mindfulness and Resilience

4.3.1 Mindfulness

15 items on Mindfulness scale were used to measure dispositional mindfulness. These items are presented above in a descriptive statistics format (Table 6).

Table 3. Descriptive Statistics for Mindfulness Scale

Item	Mean	Standard Deviation
I could be experiencing some emotion and not be conscious of it	3.48	1.28
I break or spill things because of carelessness	3.83	1.54
I find it difficult to stay focused on what's happening	3.79	1.53
I tend to walk quickly without paying attention	3.52	1.48
I tend not to notice physical tension until it grabs attention	3.46	1.5
I forget a person's name almost immediately after being told	3.46	1.81
It seems I am "running on automatic" without awareness	3.85	1.53
I rush through activities without attention	3.75	1.48
I get focused on my goal and lose touch with present actions	3.79	1.43
I do tasks automatically without awareness	3.98	1.6
I find myself listening to someone with one ear, doing something else at the same time..	3.54	1.602
I drive places on "automatic pilot" and then wonder why I went there.	4.38	1.694
I find myself preoccupied with the future or the past.	3.37	1.621
I snack without being aware that I'm eating.	4.17	1.712
I find myself doing things without paying attention	4.21	1.473

Descriptive statistics for the Mindful Attention Awareness Scale (MAAS) indicate that project professionals in this sample were not overly mindful or not at all mindful, but rather were moderately mindful. The mean scores for each of the 15 items were between 3.37 and 4.38 on a 6-point Likert scale (higher scores represent higher levels of mindfulness), as shown in Table 3. The overall pattern indicates that participants are fairly conscious in their daily activities, but that they do show some mindless behavior.

Items with the highest mean scores were the automatic behaviors: "I do things on 'automatic pilot' without being aware" (M = 3.98), "I drive places on 'automatic pilot' and then wonder why I went there" (M = 4.38), and "I snack without being aware that I snack" (M = 4.17). These higher scores show that participants habitually or "on autopilot" perform many actions without being fully present. In contrast, the lowest mean scores were found on items like "I find myself preoccupied with the future or the past" (M = 3.37) and "I tend not to notice physical tension until it grabs attention" (M = 3.46), indicating relatively good awareness here, but still only moderate.

The range of standard deviations (1.28 to 1.71) indicated moderate individual variations in mindfulness tendencies. Items related to forgetfulness ("I forget a person's name almost as soon as I hear it") and snacking while distracted (SD = 1.71) demonstrated the greatest variation, suggesting varied experiences of project professionals. In contrast, emotional awareness ("I could be experiencing some emotion and not be conscious of it," SD = 1.28) was more consistent across respondents.

However, the results overall show project professionals to have a rather average level of dispositional mindfulness, with some interesting patterns of mind-wandering and automatic pilot behavior, which are often observed in fast-paced and high-pressure project settings in which multitasking, tight deadlines, and shifting priorities are the rule of the day. This degree of mindfulness aligns with that found in samples of technical and knowledge workers (Montes et al., 2021) but is below typical levels of mindfulness found in samples exposed to formal mindfulness training. The findings suggest the possible benefits of mindfulness interventions to

project professionals, in order to decrease automatic behaviors and increase the awareness of now.

4.3.2 Resilience

The Resilience scale contained 10 items and descriptive statistics for these items are shown in Table 7.

Table 4. Descriptive Statistics for Resilience Scale

Item	Mean	Standard Deviation
I am able to adapt when changes occur	3.9	1.4
I can deal with whatever comes my way	4	1.52
I try to see the humorous side of things when facing problems	3.75	1.42
Coping with stress can make me stronger	3.87	1.45
I tend to bounce back after illness or hardships	3.88	1.52
I believe I can achieve my goals despite obstacles	4.1	1.35
Under pressure, I stay focused and think clearly	3.7	1.49
I am not easily discouraged by failure	3.92	1.47
I consider myself strong when facing life's challenges	3.8	1.44
I am able to handle unpleasant or painful feelings	3.93	1.39

Descriptive statistics of the Resilience scale which assesses the participants' resilience in different difficulty situations are shown in Table 4. The mean scores for the 10 items on the measure vary from 3.70-4.10, which represent overall high levels of resilience among the sample. The item that received the highest mean score was "I believe I can achieve my goals despite obstacles" with a mean score of 4.10, indicating that participants strongly believe that they can overcome challenges to reach their goals. Conversely, the item that scored the lowest possible mean was "Under pressure, I stay focused and think clearly," showing that while the participants may have quite generally felt resilient, some may have didn't felt focused or thinking well under pressure.

The standard deviation scores of the Resilience scale vary from 1.35 to 1.52, which indicates moderate scores' variability. There was also the lowest variability on the item I believe I can achieve my goals despite obstacles (1.35), revealing that most individuals had strong beliefs in their ability to achieve their goals. On the other hand, the item "Under pressure I stay focused and I am able to think clearly" had a larger variability (1.49) which would indicate differences in how participants experience focus under pressure. These findings indicate that, project professionals rate themselves as being quite resilient; however, their experiences with resilience may vary compared to other individuals, by their coping mechanism and stress management capability.

4.3 Inferential Statistics

4.3.1 Pearson Correlation Analysis

Table 5. Pearson Correlation Between Mindfulness and Resilience

		Mindfulness	Resilience
Mindfulness	Pearson Correlation	1	0.197
	Sig. (2-tailed)		0.162
Resilience	Pearson Correlation	0.197	1
	Sig. (2-tailed)	0.162	

Pearson's correlation tests were done to explore the relationship between Mindfulness and Resilience. A weak positive correlation with $r = 0.197$ was found in the case of the correlation coefficient. This correlation was not however statistically significant ($p = 0.162$).

The Pearson correlation coefficient between Mindfulness and Resilience was found to be $r = 0.197$, which has a weak positive correlation. However, the p-value of this correlation was 0.162, which is > 0.05 , thus the relationship between the two variables is not statistically significant.

This finding implies that while there is a slight positive relationship between mindfulness and resilience, this relationship is weak. It indicates that this variability in resilience cannot be well explained by mindfulness alone and other factors may play more important roles in resilience in project professionals.

4.3.2 Regression Analysis

Table 6. Regression Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.197a	.039	.020	.698619268510486

a. Predictors: (Constant), Mindfulness

Table 6 shows the Regression Model Summary done for Resilience based on Mindfulness. Overall the model R value is 0.197, and the R squared value is 0.039, meaning that Mindfulness only accounts for 3.9% variance in Resilience. This indicates the relatively low impact of Mindfulness predictor for Resilience. This is indicated also by the Adjusted $R^2 = 0.020$ which indicates that the model does not account for high explanation for the factor of resilience (when taking into account sample size).

Table 7. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.983	1	.983	2.015	.162b
	Residual	24.403	50	.488		
	Total	25.387	51			

a. Dependent Variable: Resilience

b. Predictors: (Constant), Mindfulness

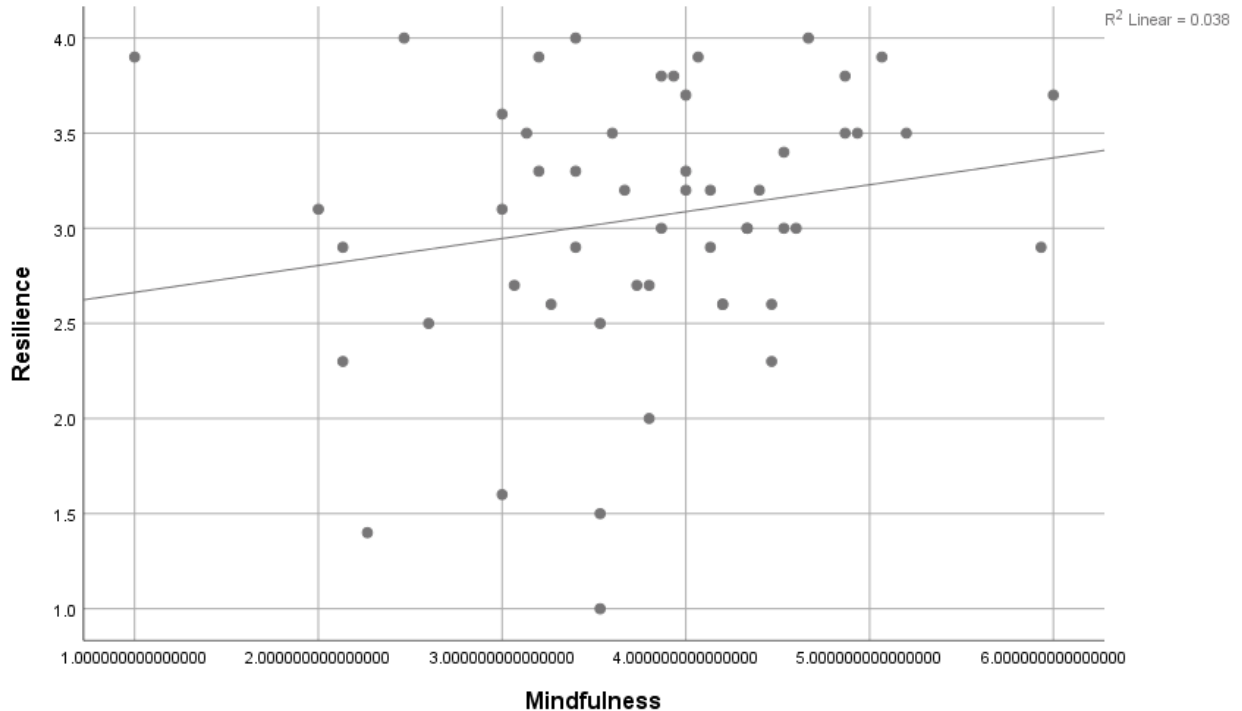
Table 7 displays the ANOVA results for the regression model. The F-statistic for the model is 2.015 and the p-value is 0.162, both of which are higher than a 0.05 significance level. This means that the regression model does not predict Resilience significantly based on Mindfulness, and thus supports the results obtained from the correlation analysis that Mindfulness and Resilience are weakly correlated and non-significant.

Table 8. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.518	.392		6.423	.000
	Mindfulness	.143	.101	.197	1.420	.162

a. Dependent Variable: Resilience

Figure 7. Scatterplot of the Relationship Between Dispositional Mindfulness and Psychological Resilience



The coefficients of the regression analysis are shown in Table 8. The unstandardized coefficient for Mindfulness is 0.143, which means that each additional unit of Mindfulness is associated with an increase of 0.143 units in Resilience. The p-value obtained for Mindfulness is however higher than the 0.05 significance level: 0.162, meaning that this relationship is not statistically significant.

The results indicated that there is no significant prediction of Resilience in project professionals based on Mindfulness. Although there was a positive relationship between the two variables, it was relatively low and there must be other factors that indicate resilience.

5 Discussion and Conclusion

The results of the present study were presented in comparison with the previous ones in the following chapter by considering the link between mindfulness and resilience among project

professionals. The aim of the study was to investigate if the variable of mindfulness was a predictor for resilience in a context that has been sparsely researched: working in project teams. The data obtained from this study is compared with the results of the studies conducted on different professions like healthcare, education, and social work to see the big picture and to understand how the present study findings are relevant.

5.1 Summary of Findings

This study found that there was a weak positive correlation ($r = 0.197$) yet, not a significant correlation ($p = 0.162$) between the scores of mindfulness and resilience of the project professionals. Moreover, the model of the regression analysis was not also statistically significant ($p = 0.162$) and only 3.9% of the variance in resentment was explained by the model of the analysis. These findings indicate that there is some correlation between mindfulness and being resilient, but it is not strong enough nor to the point where one can be deemed a strong predictor for project professionals.

5.1.1 Summary of Hypotheses Testing

Figure 8. Summary of Hypotheses Testing Results

Statement	Finding	Statistical Evidence	Decision
H1: There is a significant level of mindfulness among project professionals.	Moderate level of mindfulness observed	MAAS item means ranged from 3.37 to 4.38 (on 1–6 scale)	Accepted
H2: There is a significant level of resilience among project professionals.	High level of resilience observed	CD-RISC-10 item means ranged from 3.70 to 4.10 (on 0–4 scale)	Accepted

H3: Mindfulness has a significant influence on resilience among project professionals.	Weak positive but non-significant relationship	Pearson $r = 0.197$, $p = 0.162$ Regression: $R^2 = 0.039$, $F(1,50) = 2.015$, $p = 0.162$	Rejected
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From the presentation on Table 9, Hypotheses H1 and H2 are accepted. The participants in the sample had a moderate score for mindfulness and a high score for resilience. But, Hypothesis H3 was not accepted. Although a weak positive correlation ($r = 0.197$) was found between mindfulness and resilience, the relationship was not statistically significant ($p = 0.162$). Likewise, the regression analysis demonstrated that there was no significant difference between mindfulness and resilience as only 3.9% of the variance could be explained by the regression model. All these outcomes indicate that although a small association exists between mindfulness and resilience, the impact of mindfulness on resilience statistically was not a significant one for project professionals in this study.

5.2 Discussion of Findings

5.2.1 Mindfulness and Resilience in High-Stress Professions

There is a large body of literature in favour of an increase in mindfulness reducing stress and enhancing resilience in high stress occupations such as healthcare, emergency and education. For example, Joseph and Jose (2020) and Ma et al. (2022) identified some promotion of seniors in the field of healthcare following mindfulness interventions: underscoring the importance of mindfulness in dealing with stress and resilience in demanding professions. Similarly, Liang and Leung (2015) showed the value of mindfulness-based stress reduction (MBSR) in mitigating stress and emotional burnout in high-stress professions like that of construction, and the parallels between project work and such professions.

The current study showed however, only a low correlation between mindfulness and resilience, compared to other areas such as healthcare or emergency services where the correlation

between mindfulness and resilience is more directly applicable. This gap can be explained by the stress and resilience challenges of project activities as opposed to health care and emergency services. Project contexts tend to have a task-related stress component (time pressure, requirements, etc.) vs. an emotional stress component, which might indicate that, apart from mindfulness, other parameters (task performance, decision making capability, team and project dynamics, etc.) may also affect resilience.

5.2.2 Mindfulness and Resilience in Education and Social Work

The benefits of practicing mindfulness on education and social work-related outcomes, including greater resilience and emotional regulation as well as greater stress management has also been demonstrated by research (Weihs, 2018 and Roulston et al., 2022 respectively). These studies demonstrate the benefits of mindfulness in other emotionally taxing occupations where emotional regulation matters, such as teaching. Again, the findings in the present study were of medium scores for project professionals in terms of resilience and did not be able to account for the scores in resilience. The studies seem to show that acting with mindfulness months and months may be more beneficial for work that involves a great deal of emotional involvement; however, the findings of these studies in project settings indicate that resilience could be more specific to tasks and influenced by other factors apart from emotions, e.g., project management skills.

5.2.3 Mindfulness and Resilience in Project-Based and Construction Settings

Regarding the project-based work, an increasing literature can be found on the advantages of mindfulness for stress management as well as decision-making and performance. Leung et al., 2021, and Diaz et al., 2021, respectively, reported that mindfulness training in construction professionals and project managers resulted in participants' enhanced stress management and emotional regulation, both of which are crucial in handling project timelines and stakeholder pressures. But these have not concentrated on resilience as an outcome per se, and—as in the current study—resilience was seen as implicit or a secondary outcome of mindfulness. The

results of the present study are an advancement towards reducing this gap as they have directly investigated the effect of mindfulness on resilience of project professionals.

Overall, the results of the current study, in which no significant relationship was found between mindfulness and resilience, may indicate that the resilient qualities of project professionals are influenced more by what they are capable of doing (such as how well they problem-solve, multitask, or communicate with others) than simply their emotional regulation and/or mindfulness. In addition, external factors like organizational culture, team dynamics and supports systems were not assessed in this study, which may also be of critical importance for resilience in projects professions.

5.2.4 Mindfulness in IT and Knowledge-Intensive Professions

Research on mindfulness in IT professionals and other knowledge-intensive roles has demonstrated positive effects on emotional regulation and resilience. Montes et al. (2021) discovered that Mindfulness was also to boost cognitive flexibility and emotional stability in IT professionals, who are cognitively intensive in their work with high stress levels. The general low correlation values found for mindfulness and resilience in the project-based environment indicate that factors of cognitive flexibility or resilience factors might not be sufficiently included in mindfulness interventions in project settings. This indicates that although there may be a link between mindfulness and cognitive and emotional wellbeing, other more specific skills are needed to develop resilience for these roles.

5.3 Conclusion

The purpose of this study was to explore the potential relationship between mindfulness and resilience in project professionals. The purpose of this study was to determine if dispositional mindfulness - the tendency to be aware of and present in the moment can predict resilience in people working in project-based positions. In this instance, resilience was defined as the capacity to adjust and bounce back to meet challenges and stressor in the workplace.

The study main aim was to investigate whether mindfulness was a predictor of resilience, but the results showed that the correlation between resilience and mindfulness was not statistically significant and was only weak. The results of Pearson correlation analysis revealed a positive correlation, albeit not strong ($r = 0.197$); while the result of the regression analysis showed that mindfulness accounted for a very small portion (3.9%) of the variance in resilience that did not reach the level of significance ($p = 0.162$). It indicates that, although there can be a weak connection between mindfulness and resilience of project professionals, some factors might be more influential in the resilience of the professionals which may be related to the task, external and/or personal.

The study also revealed that resilience in the set of project professionals was seemingly high on average whilst level of mindfulness was neither very high nor very low but moderate, meaning that in this context, the levels of mindfulness are potentially not key influencers of resilient outlook. This contradicts the results of previous studies, which found more significant effects of mindfulness on resilience in high-stress occupations, like healthcare and education.

This study adds to the understanding of how mindfulness relates to resilience in the context of project professionals. Even though the correlation was weak, and there was no statistical significance on the regression model, the results showed that the resilience in the project professions is a complex. That mindfulness does not seem to be a significant factor in resilience, as it is in other occupations—like healthcare or social work—where it can help with people's emotional regulation and stress management.

The low levels of correlation between mindfulness and resilience indicate that resilience among project professionals may be affected by a number of factors in addition to being mindful – such as skill in the task, problem solving skills, team dynamics and available support systems. Based on these findings, future interventions focusing on enhancing the resilience of project professionals need to be holistic and should also include mindfulness practices as well as other interventions such as skills training and organizational support mechanisms.

Even if desired outcomes of being mindful are not directly related to resilience, the ability to be aware, in the context of well-being and stress reduction in project management, should not be ignored. Further investigation into other resilience factors should be accounted such as self-efficacy, coping or social support and how these factors interact with mindfulness to increase resilience in project professionals.

Overall, the present study helps to unravel a field that is largely unexplored in the context of Project-based work settings, thus enriching the already well-established research area of mindfulness. The results highlight the importance of taking multiple features into account when designing a resilience program for professionals and that a relationship between mindfulness and resilience is not as straightforward as it seems. Further studies will require continued exploration of the reciprocity between the two factors, including longitudinal designs, heterogeneous samples and other factors of resilience.

5.4 Implications

The results of this study have multiple implications both from the theoretical perspective and from an applied standpoint in work places.

Theoretical Implications

This research's findings add to the literature on mindfulness in many work contexts. The study extends beyond fields such as healthcare and education, where many of the existing studies have been undertaken, to project roles; this suggests that, while mindfulness may be important in some fields for resilience, it may have a totally different impact in the professional project sector.

The relative weak association between mindfulness and resilience indicates that when it comes to resilience, mindfulness may only be one cog in a vast machinery involved in resilience. Resilience theories that define resilience as multidimensional, internal (psychological) and external (contextual), offer a more elaborate picture of the link between mindfulness and resilience.

Practical Implications

It emphasizes the importance of mindfulness in project management for emotions management, stress management and well-being of the practitioners. Although mindfulness by itself may not have a measurable impact on resilience, it may be beneficial for anyone to use in strengthening their own coping style and supporting a positive workplace culture and environment. Well-being programmes could include mindfulness programmes to help mental health and emotional management by project professionals.

But, one should also think about implementing other methods that could be used to build resilience, such as time management, teaching problem solving skills, teaching teamwork etc., to cover the entire spectrum in building resilience. In addition, employers might consider establishing organizational support rounds and a better balance between work and life for professionals in order to support them in handling the stressors that are involved in the project.

Future Research Directions

Future studies might involve a wider variety of resilience predictors and investigation of interaction effects between predictors and mindfulness on resilience. Additional studies of longer duration could help understand how mindfulness might longer-term impact on resilience, and studies should draw on a wider cross-section of project professionals from different sectors to allow for generalizability. Finally, research that examines the interaction between mindfulness and other psychological factors can further contribute to the understanding of the complex relationship between mindfulness and resiliency in the context of the workplace.

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Questionnaire

Demographic Questionnaire

Please provide the following information. Your responses will be kept confidential and used solely for the purpose of this research.

1. **Age:**

Below 20

21-30

31-40

41-50

Above 50

2. **Gender:**

Male

Female

Other

Prefer not to say

3. **Highest Level of Education Completed:**

High School

Bachelor's degree

Master's Degree

Doctorate

Other

4. **Current Job Title:**

Project Manager

Project Coordinator

IT Professional

Engineer

Construction Specialist

Other (please specify): _____

5. **Years of Experience in Project-Based Work:**

Less than 1 year

1-3 years

4-6 years

7-10 years

More than 10 years

Mindfulness

Please read each statement carefully and rate how frequently you experience each one, based on your daily life. Use the following 5-point Likert scale to indicate your response:

- **1:** almost always
- **2:** very frequently
- **3:** somewhat frequently
- **4:** somewhat infrequently

- 5: very infrequently
- 6: almost never

Item Code	Statement	Almost always (1)	Very frequently (2)	Somewhat frequently (3)	Somewhat infrequently (4)	Very infrequently (5)	Almost never (6)
MF1	I could be experiencing some emotion and not be conscious of it until some time later.						
MF2	I break or spill things because of carelessness, not paying attention, or thinking of something else.						
MF3	I find it difficult to stay focused on what's happening in the present.						
MF4	I tend to walk quickly to get where I'm going						

	without paying attention to what I experience along the way.						
MF5	I tend not to notice feelings of physical tension or discomfort until they really grab my attention.						
MF6	I forget a person's name almost as soon as I've been told it for the first time.						
MF7	It seems I am "running on automatic," without much awareness of what I'm doing.						
MF8	I rush through activities without being really attentive to them.						

MF9	I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.						
MF10	I do jobs or tasks automatically, without being aware of what I'm doing.						
MF11	I find myself listening to someone with one ear, doing something else at the same time.						
MF12	I drive places on 'automatic pilot' and then wonder why I went there.						
MF13	I find myself preoccupied with the future or the past.						
MF14	I find myself						

	doing things without paying attention.						
MF15	I snack without being aware that I'm eating.						

Resilience

Please read each statement carefully and rate how frequently you experience each one, based on your daily life.

0 – Not true at all.

1 – Rarely true.

2 – Sometimes true.

3 – Often true.

4 – True nearly all the time.

Item Code	Statement	True nearly all the time (4)	Often true (3)	Sometimes true (2)	Sometimes true (2)	Not true at all (0)
RS1	I am able to adapt when changes occur.					
RS2	I can deal with whatever comes my way.					

RS3	I try to see the humorous side of things when I am faced with problems.					
RS4	Having to cope with stress can make me stronger.					
RS5	I tend to bounce back after illness, injury, or other hardships.					
RS6	I believe I can achieve my goals, even if there are obstacles.					
RS7	Under pressure, I stay focused and think clearly.					
RS8	I am not easily discouraged by failure.					
RS9	I think of myself as a strong person when dealing with life's challenges and difficulties.					
RS10	I am able to handle unpleasant or painful feelings like sadness, fear, and anger.					