

# A Systematic Literature Review of Work-Life Fulfillment and Future Research Implications

Shalu Shukla<sup>1</sup>  
Puja Khatri<sup>2</sup>

## Abstract

**Purpose :** The present study systematically reviewed the literature to conceptually develop the construct of work-life fulfillment by identifying its dimensions, antecedents, and outcomes. The study was motivated by the growing calls of management and organizational psychology scholars, emphasizing work-life fulfillment as the solution to several problems experienced by employees, like burnout, engagement, and work-life imbalance.

**Methodology :** The four-step PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) technique was used to select 64 articles for review. The ADO (antecedents, dimensions, and outcomes) framework was used to analyze the selected papers.

**Findings :** The study contributed a unique conceptualization of work-life fulfillment by identifying its definitions, dimensions, antecedents, and outcomes. The definition and dimensions presented allow for the development of a psychometric measure. The study highlighted other avenues for future research and development of theory.

**Practical Implications :** The identified dimensions and antecedents of work-life fulfillment can be utilized by the management to develop HR strategies and design training programs to ensure the holistic fulfillment of employees. Apart from materialistic rewards, organizations should focus on fulfilling employees' self-actualization and self-transcendence needs. By facilitating professional and personal aspirations, organizations should reap the benefits of a motivated workforce, prevent burnout, and promote well-being.

**Originality :** The research was original as it adopted an integrated approach to study individual fulfillment in both the personal and professional domains, departing from the earlier fragmented approach.

**Keywords :** personal fulfillment, professional fulfillment, purpose in life, meaning in life, systematic literature review

**JEL Classification Codes :** I31, J24, M12

**Paper Submission Date :** December 1, 2022 ; **Paper sent back for Revision :** March 15, 2023 ; **Paper Acceptance Date :** May 3, 2023 ; **Paper Published Online :** June 15, 2023

Fulfillment is an ancient philosophical ideal that shares its genealogy with eudaimonia (Kennett & Lomas, 2015). Gewirth (1999) defined self-fulfillment as “carrying to fruition one’s deepest desires or one’s worthiest capacities.” According to the eudemonistic ethical system, it is an individual responsibility to strive for a good life, one that is true to one’s “daimon,” the spirit within, or the “true self” (Waterman, 1990). Fulfillment is the primary component of a good life (Riethof & Bob, 2019). In modern society, as the distinction

---

<sup>1</sup> *Doctoral Scholar (Corresponding Author)*, University School of Management Studies, Guru Gobind Singh Indraprastha University, Sector 16C, Dwarka, New Delhi - 110 078. (Email : shalu.04516690019@ipu.ac.in)

ORCID iD : <https://orcid.org/0000-0003-2280-140X>

<sup>2</sup> *Professor*, University School of Management Studies, Guru Gobind Singh Indraprastha University, Sector 16C, Dwarka, New Delhi - 110 078. (Email : pujakhatri@ipu.ac.in) ; ORCID iD : <https://orcid.org/0000-0002-3154-0865>

**DOI :** <https://doi.org/10.17010/pijom/2023/v16i6/172635>

between personal selves and work identity is blurred (Pagis, 2021; Riethof & Bob, 2019), people want both a ‘fulfilling life’ alongside ‘fulfilling work’ (Kurian, 2017; Walmsley, 2008; World Employment Confederation, 2016), without compromising either for the sake of another. Positive psychology was introduced at the beginning of the third millennium with the mission of helping people attain a “fulfilling existence” by understanding what comprises fulfillment for individuals (Baumann & Ruch, 2022b; Seligman & Csikszentmihalyi, 2000). Several surveys and trends highlight fulfillment as the human capital strategy to unlock higher human potential (CECP et al., 2018; Imperative, 2019), and management thinkers and social innovators advocate “work-life fulfillment” as the new source of competitive advantage (Hamilton, 2019; Hurst, 2020; Schiemann, 2018). Literature has promoted fulfillment as the solution to employees’ work and life problems. However, the need for more attempts at systematically investigating, conceptually defining, and developing the construct is conspicuous (Baumann & Ruch, 2022a, 2022b).

The subject of organizational behavior has persistently been battling problems of employee burnout, work-life imbalance, and employee engagement. Despite decades of research and many policies and initiatives, the problems still need to be solved on practical grounds (Brassey et al., 2022). Employees are quitting or switching jobs to reconsider work-life balance (Ellerbeck, 2022; Fuller & Kerr, 2022), placing a premium on work-life balance over pay (Morgan, 2023). This figure is alarming, especially as flexible work policies were adopted across workplaces during COVID. A recent Gallup survey reported the sharpest decline in employee engagement in a decade and accompanying deterioration in employee perception of employer concern for their well-being (Harter, 2022).

However, to solve the problems mentioned above and promote employee well-being, researchers argued to shift attention from trying to remedy burnout to enhancing fulfillment (Oliveira-Silva et al., 2019). Burnout, a mental-health disorder previously reduced to stress over work, is characterized by a deficit of inner fulfillment (Langle, 2003; Maslach & Leiter, 2016; Riethof & Bob, 2019). Gipson and Malcom (2020) and Dispenza et al. (2019) advocated moving beyond the work-life balance metaphor and suggested embracing the novel yet realistic concept of work-life fulfillment. These developments in organizational psychology and management paradigms of academic studies resonate with the latest management grey literature. Imperative (2019) and Schiemann (2018) advocated that the focus be shifted to fostering employee fulfillment beyond employee engagement. Fulfillment is a viable alternative to pursue instead of the red herring employee happiness (Brudner, 2019).

The latest studies by Baumann and Ruch (2022a), Riethof and Bob (2019), Trockel et al. (2018), and Vui-Yee and Paggy (2020) identified the research gap due to the lack of studies on fulfillment, life fulfillment, professional fulfillment, and work fulfillment, respectively. Oliveira-Silva et al. (2019) and Trockel et al. (2018) developed tools to measure professional fulfillment, and Baumann and Ruch (2022a) developed a retrospective tool to measure a fulfilled life. However, fulfillment entails a “personal, professional” dimension (Brady & Wilson, 2021; McLuckey & Gunderman, 2018; Riethof & Bob, 2019). Schwartzberg (2020) also recommended that employees find personal fulfillment to facilitate professional fulfillment. Hence, an approach to fulfillment compartmentalizing personal and professional domains would result in arrested development.

Taking a cue from these research problems and research gaps, the current systematic review intends to integrate the fragmented fulfillment literature and contribute to the development of the comprehensive work-life fulfillment construct (hereon, to be referred to as WLF). The review seeks to answer the following research questions:

✎ **RQ1:** What are the various dimensions of WLF as identified in the literature?

✎ **RQ2:** What are the antecedents of WLF as studied in the literature?

✎ **RQ3:** What are the outcomes of WLF as studied in the literature?

Based on the above research questions, the research objectives of the study are:

- **Objective 1 :** To identify the dimensions of work-life fulfillment through a systematic literature review.
- **Objective 2 :** To identify the antecedents of work-life fulfillment through a systematic literature review.
- **Objective 3 :** To identify the outcomes of work-life fulfillment through a systematic literature review.

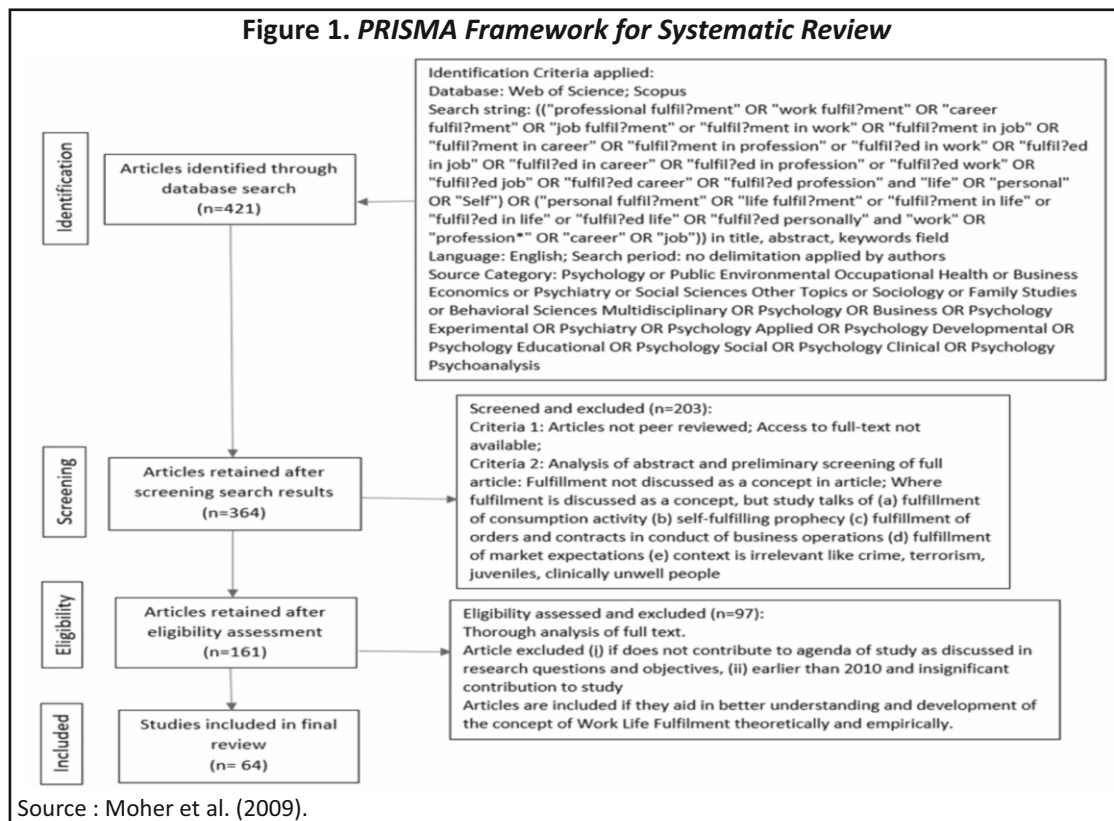
The four-step PRISMA framework is employed to systematically select studies for the review, followed by adopting the ADO (antecedents, dimensions, outcomes) framework to analyze the selected literature. The review contributes to the literature in five ways. Firstly, the study responds to calls of earlier researchers and fills the research gaps identified in fulfillment literature. Secondly, the study consolidates the fragmented literature, focusing on individual fulfillment in either the personal or professional domain, and synthesizes the integrated construct of work-life fulfillment. Thirdly, the study presents a vivid understanding of the WLF construct, conceptualizing and defining it, and identifying dimensions, antecedents, and outcomes. Fourthly, the systematically synthesized dimension table contributes to the conceptual development of WLF, setting the foundation for constructing a psychometric measure in the future, hence responding to the call of Baumann and Ruch (2022a) to develop a fulfillment measure rooted in the present. Finally, the study identifies areas for future research for further theoretical development and offers implications to practitioners.

## Methodology

There are several types of systematic review papers (Choudhary & Shree, 2021; Kumar & Kumra, 2021; Rashmi et al., 2021; Vashisht et al., 2022). In this study, which is a domain-based review, the ADO framework developed by Paul and Benito (2018) is used. In the ADO framework, A stands for antecedents, D for decisions, and O for outcomes. Antecedents identify the factors that lead to or influence the subject of interest, which in this case is WLF. The decisions explain the dimensions that characterize the subject, which in this case is the variable that comprises the experience of WLF, and outcomes identify the various consequences that arise out of the presence or absence of WLF. The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework (Moher et al., 2009) has been adopted to systematically identify papers that fall within the scope of review (Khatri et al., 2022; Kumar & Valarmathi, 2022). It is a four-step process that delineates the criteria for identification, screening, excluding, and including articles within the study's purview and matching its objective. Online databases like Web of Science (WoS) and Scopus were used to identify articles relevant to the theme of our study.

A Boolean search was performed using the relevant keywords and operators. The search query was applied to the title, keyword, or abstract field. The keywords were carefully chosen to assimilate the fragmented nascent body of literature and narrow down articles related to the concept of WLF. The search was delimited to include only English-language articles published in management, psychology, and other adjacent organizational behavior disciplines. The search yielded 158 results on WoS and 263 on Scopus. Fifty-seven duplicate articles were dropped. The remnant 364 articles were judged for fitness to the review agenda based on the thorough analysis of the abstract and preliminary screening of the full article. Articles were dropped if they were not peer-reviewed or access to full text was unavailable.

Several studies were rejected as though the term “fulfillment” occurred several times, yet, they did not elaborate, discuss, or define the concept of fulfillment. Studies that discussed fulfillment in contexts irrelevant to the review were rejected. The pool of articles qualifying for the thorough full-text eligibility test was reduced to 161. These articles were judged for correctness based on their relevance to the review agenda. Both empirical and conceptual studies were considered for inclusion. Studies published earlier than 2010 were dropped if they did not



contribute significantly. Five articles before 2010 are retained because of their valuable insights. Finally, 64 articles consistent with our objective made it to the final pool of reviewed literature.

A structured analysis of the literature was done. Studies were codified along the following lines: research aim, research findings, nature of the study, the methodology adopted, theories used, the definition of the construct, dimensions, instrument used (if any), nature of the construct, geographical location of study, study sample, variables studied in empirical relation to WLF classified further as antecedents, outcomes, mediators, moderators, and control variables. The PRISMA diagram in Figure 1 outlines the systematic four-step process adopted to select papers for the review.

## Data Analysis and Results

The present section discusses the antecedents, dimensions, and outcomes of WLF as identified from the systematic review of research on individual self-fulfillment in personal and professional domains.

### Dimensions

Professional fulfillment is the perception of attaining or being on the right track for attaining one's most fundamental career goals (Oliveira-Silva et al., 2019). The Stanford wellness survey identified professional fulfillment with subjective factors like self-worth, self-efficacy, satisfaction at work, and happiness or meaningfulness alongside objective factors like pay, rank, and power (Tröckel et al., 2018).

Work and life fulfillment are positively interrelated (McLuckey & Gunderman, 2018; Schwartzberg, 2020). If work is meaningful and pleasant, employees feel a higher level of life fulfillment (Ishola et al., 2018). Life

fulfillment goes beyond the hedonic conception of subjective well-being and emphasizes the importance of personal and social meaning. It comprises personal well-being, personal goals, personal relationships, work relationships, and contributing to the betterment of the country (Solano & Cosentino, 2016). Work fulfillment and relationship fulfillment are agreed to be the two most important dimensions of life fulfillment (Schiemann, 2018).

Experiences of meaning and purpose are essential elements of WLF (Kennett & Lomas, 2015; Trockel et al., 2018). The inherent tendency to search for the value of meaning is all the more persistent in contemporary times (Skrzypińska, 2014). Meaning and purpose are perceived when experiences meet basic psychological needs, align with intrinsic motivations, realize values, or transcend the self (Riethof & Bob, 2019). Self-transcendence is recognized as a factor of WLF (Oliveira-Silva et al., 2019), and it manifests through altruistic goals and actions that positively impact broader social issues (Kammeyer-Mueller et al., 2012; Masdonati et al., 2016; Solano & Cosentino, 2016). The scope of positive impact may be limited to another individual, people within the organization, customers, society, country, or the world (Kokun, 2015; Templer et al., 2010; Trockel et al., 2018).

Realizing the basic needs of competence, relatedness, and autonomy in work and life domains was essential to experience WLF (McLuckey & Gunderman, 2018). Enriching meaningful relationships with a profound sense of belonging are a hallmark of WLF (Park & Sprung, 2013; Solano & Cosentino, 2016; Vaclair et al., 2011). An environment supportive of autonomy in decision-making and setting goals is conducive to exercising mastery over situations (Dutschke et al., 2019; Meleddu et al., 2012; Solano & Cosentino, 2016; Wach et al., 2016). Competence is experienced through utilizing internal resources to deal with one's environment and actualize potentialities within (Meleddu et al., 2012; Solano & Cosentino, 2016). Acknowledgment of merit by the professional community through rewards like pay, promotion, job security, and involvement in organizational strategizing fulfills the self-enhancement motive (Dutschke et al., 2019; Kammeyer-Mueller et al., 2012; Oliveira-Silva et al., 2019). Other forms of ostensible social recognition and respect inculcate pride in the organization, and the work also comprises WLF (Kokun, 2015; Masdonati et al., 2016).

Conflicting work and personal life requirements lead to identity-based incoherence and stifled holistic self-realization (Côté, 2016). Unpredictable work hours have affected non-work life through diminished resources and energy. Hence, work-life balance or enrichment is an essential ingredient of WLF (Deme et al., 2018; Dispenza et al., 2019; Wach et al., 2016).

Experiencing WLF encompasses various dimensions of psychological well-being, like high self-esteem, an internal locus of control, optimism, high positive and low negative affect, and adaptive coping skills (Ricciardi et al., 2014; Riethof & Bob, 2019). Individuals in this profile perceive positive emotions of enjoyment, satisfaction, enthusiasm, happiness, engagement, and infrequent negative emotions of stress and fear (Ricciardi et al., 2014). Table 1 presents the various ways fulfillment has been defined by studies included in our literature review.

**Table 1. Definitions of Fulfillment**

Definitions	Author
<i>Work-family life fulfillment</i> is "the measure in which the experiences in one role improve quality of life in the other role."	Deme et al. (2018) ; Greenhaus & Powell (2006)
The <i>personal fulfillment</i> factor encompasses personal aspects of success.	Wach et al. (2016)
<i>Life fulfillment</i> or the sense of fulfillment in life based on the evaluation of recognizing and living according to personal values.	Trompeter et al. (2013)
<i>Professional fulfillment</i> can be defined as the perception of having reached one's most important career goals, or the positive evaluation of being on the right path to achieving these goals.	Oliveira-Silva et al. (2019)



<i>Self-Fulfillment</i> : How people see themselves in relation to achieving the objectives they have set themselves in their life, feeling fulfilled, meeting their targets, rising to challenges, and their general achievements.	Goñi et al. (2011) ; Palacios et al. (2015)
<i>Self-Fulfillment</i> is the human aim of life: to develop one's personality, views, emotions, and skills. These activities trace the meaning of life, happiness, and the search for the ultimate/sacred.	Skrzypińska (2014)
The <i>Professional Fulfillment</i> scale assesses the degree of intrinsic positive reward the individual derives from his or her work, including happiness, meaningfulness, contribution, self-worth, satisfaction, and feeling in control when dealing with difficult problems at work.	Trockel et al. (2018)
The <i>Work Fulfillment</i> motive captures the sense of personal fulfillment that older workers derive from working and includes such reasons as enjoyment of work and a sense of achievement.	Templer et al. (2010)
<i>Work Fulfillment</i> means when needs and demands expected from work are satisfied. Employees are expected to experience work fulfillment when they perceive that their intrinsic motivation has been met.	Vui-Yee & Paggy (2020)

Based on these definitions, we interpret WLF as the most optimum form of functioning, congruent with the expression of one's true self that allows both self-actualization and self-transcendence in both work and non-work domains and at the interface between the two. Table 2 summarizes the various dimensions of WLF as identified throughout the review. The variables were identified as dimensions if they were mentioned in the definition of the construct by the author or if they were a part of the operationalization of the construct. The items of the measure used were also scrutinized to synthesize the dimensions.

**Table 2. Dimensions of Work - Life Fulfillment**

Dimensions	Wach et al. (2016)	Chu (2008)	Kammeyer-Mueller et al. (2012)	Templer et al. (2010)	Dutschke et al. (2019)	Wach et al. (2020)	Trockel et al. (2018)	Riethof & Bob (2019)	Ricciardi et al. (2014)	Ambrose (2003) ; Gewirth (1999)	Masdonati et al. (2016)	Wong & Musa (2014)	Côté (2016)	Deme et al. (2018)	Solano & Cosentino (2016)	Oliveira-Silva et al. (2019)	Kokun (2015)
Optimism									✓								
Self-Esteem									✓								
Internal Locus of Control									✓								
High Positive and Low Negative Affect									✓								
Well-Being							✓	✓							✓		
Enjoy Work				✓													
Satisfaction	✓			✓			✓										✓
Purpose								✓									
Meaning							✓	✓							✓		
Work-Life	✓					✓							✓	✓			
Enrichment/Balance																	

Competence				✓			✓			✓		
Autonomy	✓			✓	✓					✓		✓
Relatedness										✓		
Self-Worth						✓						
Self-Acceptance							✓					
Creativity and Innovation	✓	✓		✓							✓	✓
Aspiration Fulfillment				✓				✓		✓	✓	✓
Capacity Fulfillment	✓			✓	✓		✓	✓	✓	✓	✓	✓
Impact			✓	✓		✓			✓	✓		✓
Self-Transcendence							✓				✓	
Pride												
Rewards and Recognition		✓		✓				✓				✓
Self-Enhancement											✓	

## Antecedents

Exercising value-congruent behaviors consistent with one's personality (Kara et al., 2012; Roush et al., 2018) is imperative to experiencing fulfillment. Due to an ethical conflict between personal and organizational values, the inability to express underlying beliefs emotionally exhaust employees and causes a decline in their perception of career fulfillment (Kammeyer-Mueller et al., 2012). Meditation and mindfulness-based interventions (Szuster et al., 2020) were reported to enhance an individual's experience of life fulfillment by unlocking the individual capacity to behave in a value-congruent manner (Franquesa et al., 2017). Further, Baumann and Ruch (2022b) proposed that personal characteristics and variables representing the quality of life, like one's psychological and social resources, are precursors for a fulfilled life. Fulfillment of basic psychological needs also leads to WLF (Martínez-Alvarado et al., 2016).

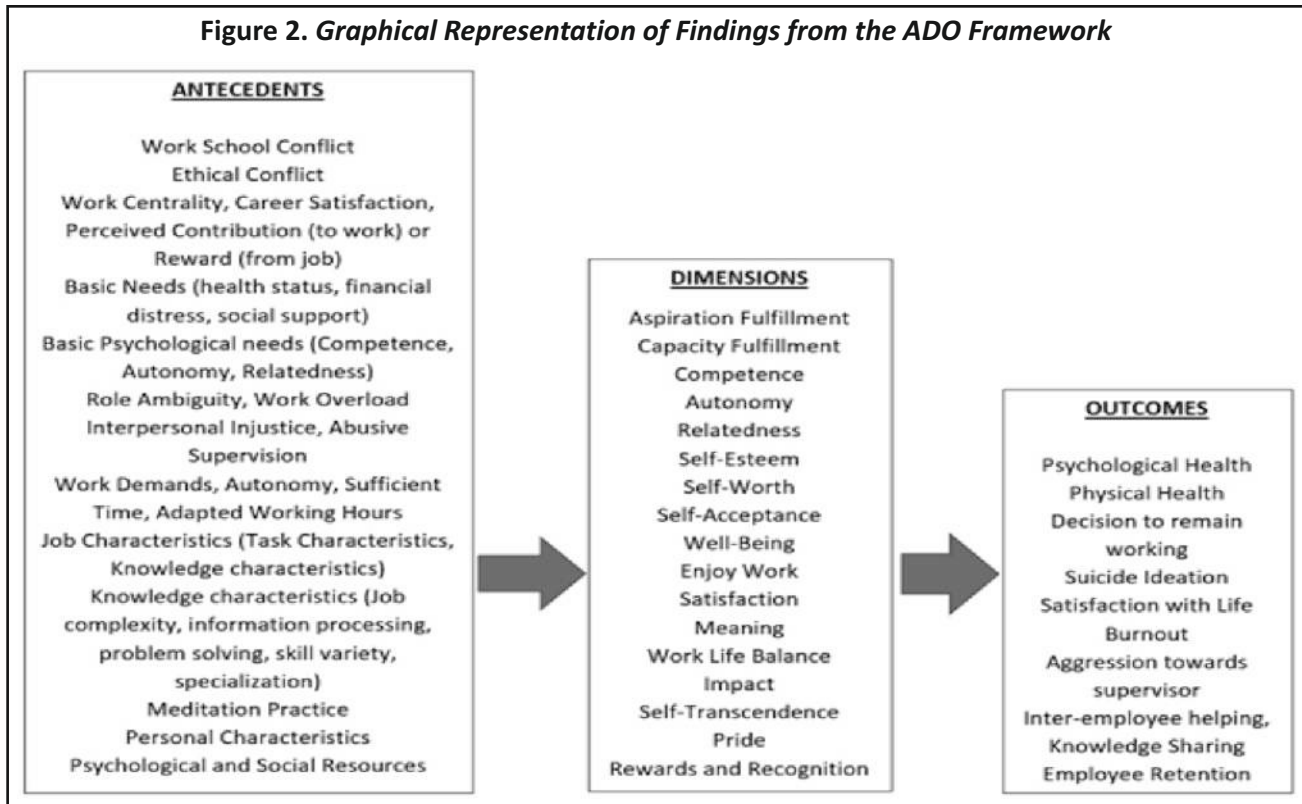
Job-related factors have been studied as predictors of fulfillment (Deme et al., 2018). Work flexibility and organizational and supervisory support improved employee perception of life fulfillment (Ishola et al., 2018). Stressful work conditions like work overload and role ambiguity negatively influence personal fulfillment at work by lowering perceived personal competence (Navarro et al., 2010). Task characteristics like autonomy, feedback, task significance, task variety, and task identity, while knowledge characteristics encompassing job complexity, skill variety, problem-solving, information processing, and specialization positively related to the experience of work fulfillment (Vui-Yee & Paggy, 2020). While having meaningful experiences at work positively related to WLF (Kennett & Lomas, 2015), work-family conflict was negatively related (Ishola et al., 2018).

## Outcomes

Experiencing WLF has been demonstrated to lead to positive personal and professional outcomes. In the personal domain, WLF is positively related to outcomes like satisfaction with life (Palacios et al., 2015), positive affect and well-being (Steger et al., 2010), and is negatively associated with suicide ideation (Roush et al., 2018).

Fulfillment improved employee turnover and retention (Vui-Yee & Paggy, 2020) and motivated older employees to lengthen their work tenure (Templer et al., 2010). Employees experiencing fulfillment sought challenges at work, enjoyed work, and demonstrated career decidedness (Steger et al., 2010). Few studies have

**Figure 2. Graphical Representation of Findings from the ADO Framework**



reported a negative relationship between WLF and burnout (Loonstra et al., 2009; Navarro et al., 2010; Tomic & Tomic, 2008). Figure 2 presents the ADO framework extracted from the systematic review of the WLF literature.

## Implications

The present systematic review integrates literature on the fulfillment of individuals in the professional and personal domains. Based on the study's findings, several theoretical and managerial implications exist.

### Theoretical Implications

Being the first systematic review on WLF, this study contributes to extending the field of positive psychology by conceptually developing the emerging construct of WLF, which is gaining traction in management and organizational psychology literature (Baumann & Ruch, 2022b). The current study responds to the calls of several earlier researchers like Baumann and Ruch (2022a), Riethof and Bob (2019), Trockel et al. (2018), and Vui-Yee and Paggy (2020), who drew attention to the lack of scientific research on the conceptualization and development of WLF. Further, the present study addresses the contention raised by authors like Brady and Wilson (2021), Riethof and Bob (2019), and McLuckey and Gunderman (2018) over the drawbacks of a compartmentalized approach to fulfillment with a focus either on the personal or the professional domain.

Further, the study contributes to WLF literature by systematically integrating the fragmented works in the domain. Upon analysis of the fulfillment literature, it is observed that while studies had labeled the fulfillment concept as applicable to either the professional or the personal domain, however, elements from the other domain



did spillover (Sidhu et al., 2020) in the definition, the dimensions, or the items of the construct. For instance, Kara et al. (2012) defined personal fulfillment as the feeling of accomplishment, security, and autonomy one gets through their job. Park and Sprung (2013) described personal fulfillment as an experience gained through a job. Similarly, Templer et al. (2010) described work fulfillment as a strong sense of personal fulfillment derived from one's job. So, except for a few sporadic studies (Deme et al., 2018; Dispenza et al., 2019; Keys, 2014; McLuckey & Gunderman, 2018), extant literature did not explicitly make attempts to explore fulfillment holistically in both the personal and professional domain. However, the overlap of dimensions was evident. Hence, the review further strengthens the rationale for adopting an integrated approach to comprehensively conceptualize fulfillment as WLF and not treating fulfillment in work and life as distinct ideologies.

A deeper analysis of the dimensions and definitions shows that subdimensions overlap and are relevant in both work and life domains. The ability to be oneself and take decisions and actions according to one's value system in one's personal life and professional career are essential to experience WLF (Kara et al., 2012; Roush et al., 2018). The ability to exercise freedom in one's choices, decisions, and actions while working translates to workplace autonomy and control in one's life (McLuckey & Gunderman, 2018). Second, a sense of competence in oneself is derived from experiencing mastery in one's job and other roles when one achieves goals and meets challenges that are personally set or at work (Templer et al., 2010; Wach et al., 2016). Receiving recognition and rewards at work reinforces feelings of personal success, growth, and self-esteem (Kammeyer-Mueller et al., 2012; Masdonati et al., 2016). Third, healthy, supportive relationships that make one feel valued at work and home are non-negotiable for WLF (Keys, 2014; McLuckey & Gunderman, 2018; Vauclair et al., 2011). Finally, a sense of purpose and self-transcendence through one's life or work derive meaning from one's existence (Ishola et al., 2018; Riethof & Bob, 2019).

The study contributes to the literature with a scientifically synthesized dimension table. The dimension table shall serve as a foundation in the development of a psychometrically valid and reliable measure (Ninan et al., 2019) of WLF, thus responding to the call of Baumann and Ruch (2022a) to develop a measure assessing fulfillment in life and other activities in the present. The measure shall facilitate future empirical research and development in this area and be used by practitioners in the industry.

Finally, the present study offers conceptual clarity and development of WLF as a novel measure of the good life that encapsulates Maslow's six-level theory of motivation. The sixth level of need, self-transcendence, along with all the other lower needs of self-actualization, esteem, love, belonging, and security, finds a place in the model of WLF. The growth or being needs of Maslow's hierarchy are particularly well represented in the WLF dimension table.

### ***Implications for the Industry***

The review finds evidence that fulfillment drives value for a business through improved performance, longer employee retention, reduced absenteeism, employee burnout prevention, enhanced employer brand promotion, and passionate and creative employees (Loonstra et al., 2009; Vui-Yee & Paggy, 2020). This study contributes to industry and practitioners by identifying areas that can be worked upon to rid employees of burnout, the most prevalent organizational phenomenon (Loonstra et al., 2009). Strategies to prevent burnout in the past have been reactive in their approach. The understanding that lack of fulfillment leads to burnout has long been neglected (Tomic & Tomic, 2008). Organizations can use the identified dimensions as a framework to assess employee WLF. Each dimension and antecedent may serve as a guidepost to develop strategies, policies, and training programs to enhance employee WLF.

Drawing from the ADO framework findings, we recommend that organizations consider implementing interventions like meditation and mindfulness-based practices. Organizations should address the problems of

work overload, role ambiguity, and work-life conflict and promote work flexibility and a culture of support amongst employees and supervisors. Employee training programs can be developed to help individuals build the personal characteristics and resources that comprise or predict WLF. Organizations should focus on providing employees with meaningful experiences at work that meet their basic psychological needs. Tasks may be restructured to enhance autonomy, feedback, task variety, job complexity, and problem-solving. Individuals want to both self-actualize and self-transcend. To address this aspiration of the workforce, organizations should consider incorporating the identified dimensions into their performance management systems to ensure that employee work experiences are aligned with their personal and professional fulfillment needs.

## **Limitations of the Study**

While we are convinced of the thoroughness of this study, it is worth acknowledging that it has common methodological limitations that arise with a systematic literature review. Firstly, excluding non-English studies due to the proficiency of reviewers only in English is a limitation. The second limitation is the exclusion of non-peer-reviewed sources in the literature screening. Finally, while this research used the most well-renowned and comprehensive e-databases, WoS and Scopus, we acknowledge that the review might have overlooked pertinent studies outside the purview of these stringent databases. Although not all published works could be included, the study's sample is representative of the existing literature. The chance of omitted articles significantly changing the findings is very low.

## **Scope for Future Research**

In the process of the review, it was observed that fulfillment emerges as a dimension of multiple other latent variables like entrepreneurial success (Wach et al., 2016), job satisfaction (Kara et al., 2012), happiness (Dutschke et al., 2019), work values (Masdonati et al., 2016), life success, and well-being (Palacios et al., 2015). In a few studies where fulfillment is discussed as a latent variable, it is either adapted from Dupré et al.'s (2006) reason for working scale, from the work values inventory, the work-family enrichment scale, or it is atomistic in its approach. Fulfillment is treated as a secondary construct in literature, either as a synonym, umbrella term, or sub-dimension for other well-being and good-life constructs (Baumann & Ruch, 2022b). In light of the above theoretical inconsistencies observed, we implore future researchers to empirically establish the construct validity of WLF in the nomological network of positive psychology constructs (Baumann & Ruch, 2022b). Scientific inquiry on fulfillment is only nascent; hence, convergent and divergent validity with related constructs must be established conceptually and empirically.

Further, understanding variances in the composition and relevance of the WLF construct in different contexts must be developed. As the growth or being needs of the Maslow hierarchy find a strong representation in the conceptualization of WLF in its present form, a research question worth scholarly investigation arises. Does the concept of WLF resonate equally with blue-collar, white-collar, and pink-collared employees and entrepreneurs?

Another observation upon review is observed that theories pertinent to fulfillment have not been discussed in the literature, mainly because of the treatment of fulfillment only as an ancillary construct in literature. Based on this observation, we recommend the development of WLF literature on a solid foundation of theories. We propose the application of the latest vocational models like the psychology of working theory (PWT) by Duffy et al. (2016) and the strength-based inclusive theory (S-BIT) of work by Owens et al. (2019). The PWT discusses the role of contextual and psychological variables in the individual's ability to secure decent work and derive the positively interrelated experiences of work fulfillment and general well-being, where the former is related to the work domain and the latter to life (Duffy et al., 2016). Similarly, the S-BIT identifies factors that promote or impede

well-being at work, formally conceptualized as fulfilling work, the central output variable of the S-BIT model. SBIT focuses on the individual's strengths, the whole person across career and lifespan, and the context (Owens et al., 2019). According to both theories, optimal experiences of fulfillment and well-being across work and life are not privileges but rights of every working individual. Further, the onus of attaining these optimal experiences rests not just on the individual; the macro-variables and the organization play a primary role in providing a conducive environment (Owens et al., 2019). Conceptual development of models of WLF with other relevant constructs based on these theories shall expand the nomological network of WLF, which is yet in the early stages of development.

## **Authors' Contribution**

Professor (Dr.) Puja Khatri conceived the idea and designed the study. Professor Puja Khatri and Shalu Shukla shortlisted the keywords for the database search and designed the search query. Shalu Shukla explored the databases, extracted research papers, screened them, and analyzed the content of the final selected studies. Professor Puja Khatri reviewed and refined the codes generated upon content analysis by Shalu Shukla. Shalu Shukla constructed the tables and figures with the consultation of Professor Puja Khatri. The manuscript was written by Shalu Shukla under the supervision of Professor Puja Khatri, who critically reviewed the manuscript.

## **Conflict of Interest**

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

## **Funding Acknowledgement**

The authors received no financial support for the research, authorship, and/or for publication of this article.

## **References**

- Ambrose, D. (2003). Barriers to aspiration development and self-fulfillment: Interdisciplinary insights for talent discovery. *Gifted Child Quarterly*, 47(4), 282–294. <https://doi.org/10.1177/001698620304700405>
- Baumann, D., & Ruch, W. (2022a). Measuring what counts in life: The development and initial validation of the Fulfilled Life Scale (FLS). *Frontiers in Psychology*, 12, Article 795931. <https://doi.org/10.3389/fpsyg.2021.795931>
- Baumann, D., & Ruch, W. (2022b). What constitutes a fulfilled life? A mixed methods study on lay perspectives across the lifespan. *Frontiers in Psychology*, 13, Article 982782. <https://doi.org/10.3389/fpsyg.2022.982782>
- Brady, J., & Wilson, E. (2021). Teacher wellbeing in England: Teacher responses to school-level initiatives. *Cambridge Journal of Education*, 51(1), 45–63. <https://doi.org/10.1080/0305764X.2020.1775789>

- Brassey, J., Coe, E., Dewhurst, M., Enomoto, K., Giarola, R., Herbig, B., & Jeffery, B. (2022). *Addressing employee burnout: Are you solving the right problem?* McKinsey Health Institute. <https://www.mckinsey.com/mhi/our-insights/addressing-employee-burnout-are-you-solving-the-right-problem>
- Brudner, E. (2019, November 19). Stop trying to make your employees happy. Start thinking about their fulfillment instead. *Inc.Com.* <https://www.inc.com/emma-brudner/stop-trying-to-make-your-employees-happy-start-doing-this-instead.html>
- CECP, Imperative, & PwC. (2018). *Making work more meaningful*. <https://d0cb2f2608c10c70e72afc7154704217aa017aa46150bf00c30c.ssl.cf5.rackcdn.com/pwc-building-a-fulfilling-employee-experience.pdf>
- Choudhary, J., & Shree, S. (2021). Intra-national cultural values: A systematic review of literature and the way forward for comparative studies in India. *Prabandhan: Indian Journal of Management*, 14(5–7), 56–74. <https://doi.org/10.17010/pijom/2021/v14i5-7/164690>
- Chu, K. H. (2008). A factorial validation of work value structure: Second-order confirmatory factor analysis and its implications. *Tourism Management*, 29(2), 320–330. <https://doi.org/10.1016/j.tourman.2007.03.003>
- Côté, N. (2016). Understanding turnover as a lifecycle process: The case of young nurses. *Relations Industrielles*, 71(2), 203–223. <https://www.jstor.org/stable/26301426>
- Deme, S., Dumas, M., & Hikkerova, L. (2018). Sources of work-family life conflict and fulfillment among healthcare professionals in the hospital sector. *Review Gestion & Management Public*, 7(1), 9–30.
- Dispenza, F., Brennaman, C., Harper, L. S., Harrigan, M. A., Chastain, T. E., & Procter, J. E. (2019). Career development of sexual and gender minority persons living with disabilities. *The Counseling Psychologist*, 47(1), 98–128. <https://doi.org/10.1177/0011000018819425>
- Duffy, R. D., Blustein, D. L., Diemer, M. A., & Autin, K. L. (2016). The psychology of working theory. *Journal of Counseling Psychology*, 63(2), 127–148. <https://doi.org/10.1037/cou0000140>
- Dupré, K. E., Inness, M., Connelly, C. E., Barling, J., & Hopton, C. (2006). Workplace aggression in teenage part-time employees. *Journal of Applied Psychology*, 91(5), 987–997. <https://doi.org/10.1037/0021-9010.91.5.987>
- Dutschke, G., Jacobsohn, L., Dias, A., & Combadão, J. (2019). The job design happiness scale (JDHS). *Journal of Organizational Change Management*, 32(7), 709–724. <https://doi.org/10.1108/JOCM-01-2018-0035>
- Ellerbeck, S. (2022). *The Great Resignation is not over: A fifth of workers plan to quit in 2022*. World Economic Forum. <https://www.weforum.org/agenda/2022/06/the-great-resignation-is-not-over/>
- Franquesa, A., Cebolla, A., García-Campayo, J., Demarzo, M., Elices, M., Pascual, J. C., & Soler, J. (2017). Meditation practice is associated with a values-oriented life: The mediating role of decentering and mindfulness. *Mindfulness*, 8(5), 1259–1268. <https://doi.org/10.1007/s12671-017-0702-5>
- Fuller, & Kerr, W. (2022). The Great Resignation didn't start with the pandemic. *Harvard Business Review*. <https://hbr.org/2022/03/the-great-resignation-didnt-start-with-the-pandemic>
- Gewirth, A. (1999). The ideal of self-fulfillment. In, *Self-fulfillment* (pp. 3–18). Princeton University Press.

- Gipson, C., & Malcom, N. L. (2020). Blurring the lines for personal success: Career, family, and voluntary activities of women in academic sport settings. *Women's Studies*, 49(1), 63–82. <https://doi.org/10.1080/00497878.2019.1695611>
- Goñi, E., Madariaga, J. M., Axpe, I., & Goñi, A. (2011). Structure of the personal self-concept (PSC) questionnaire. *International Journal of Clinical and Health Psychology*, 11(3), 509–522.
- Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies : A theory of work-family enrichment. *The Academy of Management Review*, 31(1), 72–92. <https://doi.org/10.5465/amr.2006.19379625>
- Hamilton, K. (2019, April 19). Don't aim for work-life balance. Aim for work-life fulfillment. *Forbes*. <https://www.forbes.com/sites/smartsheet/2019/04/19/dont-aim-for-work-life-balance-aim-for-work-life-fulfillment/?sh=6dd8c9934359>
- Harter, J. (2022, April 25). *U.S. employee engagement slump continues*. Gallup. <https://www.gallup.com/workplace/391922/employee-engagement-slump-continues.aspx>
- Hurst, A. (2020). *The new competitive advantage: Employee fulfillment*. LinkedIn. <https://www.linkedin.com/pulse/new-competitive-advantage-employee-fulfillment-aaron-hurst/>
- Imperative. (2019). *The Workforce Purpose Indexes*. <https://www.imperative.com/workforce-purpose-index>
- Ishola, A. A., Kenku, A. A., & Aroyewun, F. T. (2018). Work-family conflict and demographic variables as co-variants of life satisfaction among nurses from selected healthcare facilities in the Ibadan Metropolis. *International Journal of Caring Sciences*, 11(1), 523–528.
- Kammeyer-Mueller, J. D., Simon, L. S., & Rich, B. L. (2012). The psychic cost of doing wrong: Ethical conflict, divestiture socialization, and emotional exhaustion. *Journal of Management*, 38(3), 784–808. <https://doi.org/10.1177/0149206310381133>
- Kara, D., Uysal, M., & Magnini, V. P. (2012). Gender differences on job satisfaction of the five-star hotel employees: The case of the Turkish hotel industry. *International Journal of Contemporary Hospitality Management*, 24(7), 1047–1065. <https://doi.org/10.1108/09596111211258919>
- Kennett, P., & Lomas, T. (2015). Making meaning through mentoring: Mentors finding fulfillment at work through self-determination and self-reflection. *International Journal of Evidence Based Coaching and Mentoring*, 13(2), 29–44.
- Keys, Y. (2014). Looking ahead to our next generation of nurse leaders: Generation X nurse managers. *Journal of Nursing Management*, 22(1), 97–105. <https://doi.org/10.1111/jonm.12198>
- Khatri, P., Kaushik, N., & Kumari, P. (2022). Positive leadership: Qualitative leadership research using deductive pattern matching approach. *Prabandhan: Indian Journal of Management*, 15(4), 8–27. <https://doi.org/10.17010/pijom/2022/v15i4/169247>
- Kokun, O. M. (2015). Professional self-fulfillment of skilled people of different professional groups and specialities. *Social Welfare : Interdisciplinary Approach*, 5(2), 19–32. <https://doi.org/10.15388/sw.2015.28174>
- Kumar, G. V., & Valarmathi, B. (2022). Job crafting: A systematic review and meta-analytical relationships with precursors and work outcomes (2001–2021). *Prabandhan: Indian Journal of Management*, 15(1), 40–52. <https://doi.org/10.17010/pijom/2022/v15i1/167860>



- Kumar, P., & Kumra, R. (2021). Rural self-employment training institutes in India: A systematic review. *Prabandhan: Indian Journal of Management*, 14(10), 38–49. <https://doi.org/10.17010/pijom/2021/v14i10/166643>
- Kurian, S. (2017). *Meet the millennials*. KPMG. <https://assets.kpmg.com/content/dam/kpmg/uk/pdf/2017/04/Meet-the-Millennials-Secured.pdf>
- Langle, A. (2003). Burnout – Existential meaning and possibilities of prevention. *European Psychotherapy*, 4(1), 107–122.
- Loonstra, B., Brouwers, A., & Tomic, W. (2009). Feelings of existential fulfilment and burnout among secondary school teachers. *Teaching and Teacher Education*, 25(5), 752–757. <https://doi.org/10.1016/j.tate.2009.01.002>
- Martínez-Alvarado, J. R., Guillén, F., & Feltz, D. (2016). Athletes’ motivational needs regarding burnout and engagement. *Revista de Psicología Del Deporte*, 25(1), 65–71.
- Masdonati, J., Fournier, G., Pinault, M., & Lahrizi, I. Z. (2016). The evolution of work values during the school-to-work transition: The case of young adults in the “missing middle.” *International Journal for Educational and Vocational Guidance*, 16(2), 189–212. <https://doi.org/10.1007/s10775-015-9300-z>
- Maslach, C., & Leiter, M.P. (2016). Understanding the burnout experience: Recent research and its implications for psychiatry. *World Psychiatry*, 15(2), 103–111. <https://doi.org/10.1002/wps.20311>
- McLuckey, M. N., & Gunderman, R. B. (2018). Burnout education: The relationship of personal life to work life. *Academic Radiology*, 25(8), 1097–1098. <https://doi.org/10.1016/j.acra.2018.02.021>
- Meleddu, M., Guicciardi, M., Scalas, L. F., & Fadda, D. (2012). Validation of an Italian version of the Oxford Happiness Inventory in adolescence. *Journal of Personality Assessment*, 94(2), 175–185. <https://doi.org/10.1080/00223891.2011.645931>
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & The PRISMA Group\*. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *Annals of Internal Medicine*, 151(4), 264–269. <https://doi.org/10.7326/0003-4819-151-4-200908180-00135>
- Morgan, K. (2023, February 28). What does work-life balance mean in a changed work world? *BBC*. <https://www.bbc.com/worklife/article/20230227-what-does-work-life-balance-mean-in-a-changed-work-world>
- Navarro, M. L., Mas, M. B., & Jiménez, A. M. (2010). Working conditions, burnout and stress symptoms in university professors: Validating a structural model of the mediating effect of perceived personal competence. *The Spanish Journal of Psychology*, 13(1), 284–296. <https://doi.org/10.1017/S1138741600003863>
- Ninan, N., Roy, J. C., & Thomas, M. R. (2019). Benefits of cross-training: Scale development and validity. *Prabandhan: Indian Journal of Management*, 12(6), 41–56. <https://doi.org/10.17010/pijom/2019/v12i6/144935>
- Oliveira-Silva, L. C., Porto, J. B., & Arnold, J. (2019). Professional fulfillment: Concept and instrument proposition. *Psico-USF*, 24(1), 27–39. <https://doi.org/10.1590/1413-82712019240103>
- Owens, R. L., Allan, B. A., & Flores, L. Y. (2019). The strengths-based inclusive theory of work. *Counseling Psychologist*, 47(2), 222–265. <https://doi.org/10.1177/0011000019859538>

- Pagis, M. (2021). Inhabiting the self-work romantic utopia: Positive psychology, life coaching, and the challenge of self-fulfillment at work. *Work and Occupations*, 48(1), 40–69. <https://doi.org/10.1177/0730888420911683>
- Palacios, E. G., Echaniz, I. E., Fernández, A. R., & De Barrón, C. O. (2015). Personal self-concept and satisfaction with life in adolescence, youth and adulthood. *Psicothema*, 27(1), 52–58. <http://www.ncbi.nlm.nih.gov/pubmed/25633770>
- Park, Y. A., & Sprung, J. M. (2013). Work-school conflict and health outcomes: Beneficial resources for working college students. *Journal of Occupational Health Psychology*, 18(4), 384–394. <https://doi.org/10.1037/a0033614>
- Paul, J., & Benito, G.R. (2018). A review of research on outward foreign direct investment from emerging countries, including China: What do we know, how do we know and where should we be heading ? *Asia Pacific Business Review*, 24(1), 90–115. <https://doi.org/10.1080/13602381.2017.1357316>
- Rashmi, K., Kataria, A., & Singh, R. (2021). Work-life balance: A review and future research agenda. *Prabandhan: Indian Journal of Management*, 14(2), 8–25. <https://doi.org/10.17010/pijom/2021/v14i2/157690>
- Ricciardi, M. R., Åkerman, J., Eerikäinen, P., Ambjörnsson, A., Arnten, A.-C., Mihailovic, M., Archer, T., & Garcia, D. (2014). Understanding group and leader (UGL) trainers' personality characteristics and affective profiles. *Frontiers in Psychology*, 5, 1–11. <https://doi.org/10.3389/fpsyg.2014.01191>
- Riethof, N., & Bob, P. (2019). Burnout syndrome and logotherapy: Logotherapy as useful conceptual framework for explanation and prevention of burnout. *Frontiers in Psychiatry*, 10, 1–8. <https://doi.org/10.3389/fpsyg.2019.00382>
- Roush, J. F., Cukrowicz, K. C., Mitchell, S. M., Brown, S. L., & Seymour, N. E. (2018). Valued living, life fulfillment, and suicide ideation among psychiatric inpatients: The mediating role of thwarted interpersonal needs. *Journal of Contextual Behavioral Science*, 7, 8–14. <https://doi.org/10.1016/j.jcbs.2017.11.001>
- Schiemann, W. (2018). Beyond engagement: Fulfillment as a competitive advantage. *People + Strategy*, 41(4), 34–38. <https://www.shrm.org/executive/resources/people-strategy-journal/fall-2018/pages/beyond-engagement.aspx>
- Schwartzberg, J. (2020). How to make the most of the job you already have. *Harvard Business Review*. <https://hbr.org/2020/03/how-to-make-the-most-of-the-job-you-already-have>
- Seligman, M. E., & Csikszentmihalyi, M. (2000). Positive psychology. An introduction. *The American Psychologist*, 55(1), 5–14. <https://doi.org/10.1037/0003-066X.55.1.5>
- Sidhu, A., Bhalla, P., & Nazneen, A. (2020). Impact of workplace romance on organizational settings and policies: Review research. *Prabandhan: Indian Journal of Management*, 13(5–7), 44–57. <https://doi.org/10.17010/pijom/2020/v13i5-7/153081>
- Skrzypińska, K. (2014). The threefold nature of spirituality (TNS) in a psychological cognitive framework. *Archive for the Psychology of Religion*, 36(3), 277–302. <https://doi.org/10.1163/15736121-12341293>
- Solano, A. C., & Cosentino, A. C. (2016). The relationships between character strengths and life fulfillment in the view of lay-people in Argentina. *Interdisciplinaria*, 33(1), 65–80. <https://doi.org/10.16888/interd.2016.33.1.4>

- Steger, M. F., Pickering, N. K., Shin, J. Y., & Dik, B. J. (2010). Calling in work: Secular or sacred? *Journal of Career Assessment*, 18(1), 82–96. <https://doi.org/10.1177/1069072709350905>
- Szuster, R. R., Onoye, J. M., Eckert, M. D., Kurahara, D. K., Ikeda, R. K., & Matsu, C. R. (2020). Presence, resilience, and compassion training in clinical education (PRACTICE): Evaluation of a mindfulness-based intervention for residents. *International Journal of Psychiatry in Medicine*, 55(2), 131–141. <https://doi.org/10.1177/0091217419887639>
- Templer, A., Armstrong-Stassen, M., & Cattaneo, J. (2010). Antecedents of older workers' motives for continuing to work. *Career Development International*, 15(5), 479–500. <https://doi.org/10.1108/13620431011075349>
- Tomic, W., & Tomic, E. (2008). Existential fulfillment and burnout among principals and teachers. *Journal of Beliefs and Values*, 29(1), 11–27. <https://doi.org/10.1080/13617670801928191>
- Trockel, M., Bohman, B., Lesure, E., Hamidi, M. S., Welle, D., Roberts, L., & Shanafelt, T. (2018). A brief instrument to assess both burnout and professional fulfillment in physicians: Reliability and validity, including correlation with self-reported medical errors, in a sample of resident and practicing physicians. *Academic Psychiatry*, 42(1), 11–24. <https://doi.org/10.1007/s40596-017-0849-3>
- Trockel, M., Hamidi, M., Murphy, M. Lou, Vries, P. P. De, & Bohman, B. (2017). *The 2016 physician wellness survey results : Stanford University Hospital and Lucile Packard Children's Hospital Medical Staff*. Stanford Medicine, 1–7.
- Trompetter, H. R., Ten Klooster, P. M., Schreurs, K. M. G., Fledderus, M., Westerhof, G. J., & Bohlmeijer, E. T. (2013). Measuring values and committed action with the engaged living scale (ELS): Psychometric evaluation in a nonclinical sample and a chronic pain sample. *Psychological Assessment*, 25(4), 1235–1246. <https://doi.org/10.1037/a0033813>
- Vashisht, R., Kaushal, P., & Vashisht, S. (2022). Job embeddedness and work performance: A systematic review and meta-analysis. *Prabandhan: Indian Journal of Management*, 15(7), 24–35. <https://doi.org/10.17010/pijom/2022/v15i7/170789>
- Vauclair, C. M., Hanke, K., Fischer, R., & Fontaine, J. (2011). The structure of human values at the culture level: A meta-analytical replication of Schwartz's value orientations using the Rokeach value survey. *Journal of Cross-Cultural Psychology*, 42(2), 186–205. <https://doi.org/10.1177/0022022110396864>
- Vui-Yee, K., & Paggy, K. (2020). The effect of work fulfillment on job characteristics and employee retention: Gen Y employees. *Global Business Review*, 21(2), 313–327. <https://doi.org/10.1177/0972150918778912>
- Wach, D., Stephan, U., & Gorgievski, M. (2016). More than money: Developing an integrative multi-factorial measure of entrepreneurial success. *International Small Business Journal: Researching Entrepreneurship*, 34(8), 1098–1121. <https://doi.org/10.1177/0266242615608469>
- Wach, D., Stephan, U., Gorgievski, M. J., & Wegge, J. (2020). Entrepreneurs' achieved success: Developing a multi-faceted measure. *International Entrepreneurship and Management Journal*, 16(3), 1123–1151. <https://doi.org/10.1007/s11365-018-0532-5>
- Walmsley, D. J. (2008). The work-life balance: Geographical perspectives on lifestyle, leisure, stuff and the future presidential address to the Institute of Australian Geographers' Conference, Hobart, July 2008. *Geographical Research*, 46(3), 245–254. <https://doi.org/10.1111/j.1745-5871.2008.00520.x>

- Waterman, A. S. (1990). The relevance of Aristotle's conception of eudaimonia for the psychological study of happiness. *Theoretical & Philosophical Psychology*, 10(1), 39–44. <https://doi.org/10.1037/h0091489>
- Wong, K. M., & Musa, G. (2014). Retirement motivation among “Malaysia my second home” participants. *Tourism Management*, 40, 141–154. <https://doi.org/10.1016/j.tourman.2013.06.002>
- World Employment Confederation. (2016). *The future of work* [White Paper]. [https://www.weceurope.org/uploads/2019/07/2016\\_WEC\\_Future-of-Work.pdf](https://www.weceurope.org/uploads/2019/07/2016_WEC_Future-of-Work.pdf)

### About the Authors

**Shalu Shukla** is a Doctoral Candidate of Organizational Behavior and Human Resource Management. She holds a Bachelor (Hons) in Computers Science and is an MBA. She is a level 3 certified market professional from NSE.

**Dr. Puja Khatri** is a Professor of organizational behavior and human resource management. Her industry-academic experience spans over 19 years. She has published over 134 research articles in journals and conference proceedings of national and international repute.