

Araştırma Makalesi / Research Article

ISSN: 2687-4091
JCS, Volume (7)2
<https://dergipark.org.tr/jcsci>

Does Blue-Collars' Well-Being Always Enhance Job Engagement? The Moderating Influence of Meaningful Work

Mavi Yakalılıkların İyi Oluş Düzeyi Her Zaman İşe Tutunmayı Arttırır mı? Anlamlı İşin Düzenleyici Etkisi

Atıf Gösterimi:
Kızrak, M., Kibaroglu, G.G.
(2023). Does Blue-Collars' Well-Being Always Enhance Job Engagement? The Moderating Influence of Meaningful Work Başkent Üniversitesi Ticari Bilimler Fakültesi Dergisi, (7)2, 167-187.

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Özet

Amaç: Öz-Düzenleme Kuramı, İş Özellikleri Modeli ve Pozitif Psikoloji Yaklaşımının varsayımlarını dayanan bu görgül çalışma, mavi yakalı çalışanlar arasındaki iyi oluş ve işe tutunma arasındaki ilişkide işin anlamlılığının düzenleyici rolünü araştırarak bu değişkenler arasındaki karmaşık etkileşimin daha iyi anlaşılmasına katkıda bulunmayı amaçlamıştır.

Yöntem: Araştırmada nicel araştırma deseni benimsenmiştir. Mavi yakalı çalışanlardan elde edilen veriler (n:237), güvenirlik ve geçerlik düzeyleri yüksek ölçekler kullanılarak online yöntemle toplanmış olup, veri analizi için Smart PLS 4 and IBM SPSS 26 yazılımları kullanılmıştır. Hipotezler ve araştırma modeli Bootstrapping analizi ve Yapısal Eşitlik Modellemesi ile test edilmiştir.

Bulgular: Mavi yakalı çalışanların iyi olma ve işe tutunma ilişkisi, işin anlamlılık düzeyinden etkilenmektedir. Yaptıkları işin anlamlı olduğunu düşünen çalışanlarda iyi

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olma ile işe tutunma arasında olumlu bir ilişki gözlemlenirken, anlamlılık düzeyinin düşük olması bu ilişkiyi olumsuz yönde etkilemektedir.

Sonuç ve Katkıları: Yöneticiler, mavi yakalı çalışma ortamında iş görenlerin iyi olma durumunu ve işe tutunma düzeyini arttıracak destekleyici bir liderlik tarzı benimsemelidir. Ayrıca mavi yakalı çalışanların görevlerini çeşitlendirerek işlerine olan ilgiyi ve işin anlamlılık düzeyini arttırmalıdır.

Sınırlılıklar: Çalışmanın sadece Türk katılımcı örneklemini içermesi genelleme olasılığını sınırlamaktadır. Ayrıca, çalışmanın öz bildirim dayalı ölçümlerinin yanıt yanlılığına yol açabilmesi; kullanılan kesitsel verilerin nedensel ilişkileri ortaya çıkarmadaki sorunları ve çalışmanın sadece nicel yöntemlere dayandırılmış olması önemli sınırlılıklar olarak değerlendirilmektedir.

Anahtar Kelimeler: Anlamli iş, İyi oluş, İşe tutunma, Mavi yakalı çalışanlar

Jel Kodu: M10, M12, L2

Abstract

Purpose: Integrating the assumptions of Self-Regulation Theory, the Job Characteristics Model, and the Positive Psychology Approach, this empirical study aims to investigate the moderating role of meaningful work in the relationship between well-being and job engagement among blue-collar workers, contributing to an enhanced understanding of the complex interplay between these constructs.

Methodology: The research adopted a quantitative research design by utilizing data obtained from blue-collar workers (n:237). The data, collected through an online method using scales with high levels of reliability and validity, was analyzed using Smart PLS 4 and IBM SPSS 26 software. The hypotheses and research model were tested employing the Bootstrapping analysis and structural equation modelling.

Findings: The relationship between well-being and job engagement among blue-collar workers is influenced by the level of meaningful work, meaning that high meaningful work corresponds to a positive well-being-job engagement link while low meaningful work alters this relationship by negatively affecting job engagement through well-being.

Implications: Managers should adopt a supportive leadership style in the blue-collar work environment to enhance the well-being and job engagement levels of employees. Additionally, blue-collar workers should have diversified tasks to increase their interest in their jobs and the level of meaningfulness associated with their work.

Limitations: Limitations include a Turkish-only participant sample, potentially limiting generalization; self-report measures introducing response bias; cross-sectional data hindering causal relationship establishment; and sole reliance on quantitative methods, omitting qualitative insights.

Keywords: Meaningful work, Well-being, Job engagement, Blue-collar workers

Jel Codes: M10, M12, L2

1. Introduction

In recent organizational studies, the notion of job engagement has arisen as a crucial factor in employee performance and satisfaction (De Los Santos & Labrague, 2021; Labrague & Obeidat, 2022). Job engagement is defined as an individual's enthusiastic involvement in their responsibilities, driven by intrinsic rewards and a personal connection to their tasks (Roberts & Davenport, 2002). It encompasses the notion of individuals wholeheartedly employing their own identities, invoking, and articulating their authentic selves while executing their designated duties (Kahn & Fellows, 2013).

The traditional understanding of job engagement, often confined to task completion and job-related responsibilities (Jawad & Rizwan, 2023; Silic et al., 2020), is undergoing transformation due to the evolving nature of work and the acknowledgment of employees as holistic individuals. This shift has prompted a need for a more in-depth exploration of factors that elevate job engagement to a more heightened level (Nimon et al., 2023). Central to this inquiry is the focus on employee well-being, which involves evaluating subjective feelings of emotional state (affect) and satisfaction across various areas of life (Bryson et al., 2017). While previous research has identified predictors of job engagement, such as job crafting (Chen et al., 2014), coworker support, management commitment to safety (Yuan & Tetrick, 2015), and job autonomy (Sung et al., 2022), the interplay between job engagement and employee well-being within the context of blue-collar workers remains unexplored. Notably, existing studies on the relationship between job engagement and well-being have predominantly concentrated on specific employee groups, such as IT professionals (Yogamalar & Samuel, 2019), customer service employees (Hammedi et al., 2021), and healthcare practitioners (Tesi et al., 2018). This research gap gains relevance within the distinctive landscape of blue-collar work, characterized by physically demanding tasks and potential exposure to workplace hazards, and unique circumstances that may influence their well-being and job engagement. Specifically, addressing this negligence becomes increasingly important in light of recent technological developments affecting blue-collar workers, which have introduced new dynamics and challenges, such as job automation, work-home interface, new robotic tools, and constant connectivity to work (Baek et al., 2023; Hampel et al., 2022; Toshav-Eichner & Bareket-Bojmel, 2022; Moore et al., 2014). In light of this gap, we propose a new direction for research in this area. Therefore, in this study, we aim to investigate whether well-being may lead to increased job engagement among blue-collar workers. This proposal is rooted in the Self-regulation Theory (Carver & Scheier, 1981), which posits that individuals who experience higher levels of well-being are better equipped to effectively manage their cognitive, emotional, and behavioral processes (Carver & Scheier, 1981). This enhanced self-regulation, in turn, may contribute to a heightened sense of motivation, focus, and dedication to their work tasks, ultimately fostering greater job engagement among blue-collar workers.

Existing research also lacks a comprehensive understanding of the specific conditions that may enhance the association between well-being and job engagement among blue-collar workers. This study seeks to address this gap by examining the role of meaningful work, suggesting that the effect of well-being on job engagement may be different based on the level of meaningfulness experienced in

the work. Hence, meaningful work, defined by its inherent sense of purpose and significance (Lips-Wiersma et al., 2016), may potentially influence and strengthen the dynamic between well-being and job engagement. As blue-collar workers have physically demanding tasks and unique challenges inherent to their roles, meaningful work may serve as a force that influences the strength and direction of this interrelationship.

Additionally, possible mediating role of meaningful work can be explained by the principles of the Job Characteristics Model and Positive Psychology perspectives. Meaningful work highlights the significance of task autonomy and significance, in line with the Job Characteristics Model (Um & Bardhoshi, 2022; West, 2023), while also aligning with Positive Psychology's emphasis on discovering purpose and meaning (Seligman, 2002). As a result, the combined insights from the Job Characteristics Model and Positive Psychology perspectives contribute to a deeper comprehension of how meaningful work, serving as a moderator, impacts the complex relationship between well-being and job engagement. These perspectives offer a comprehensive framework for examining the mechanisms that influence the connections among well-being, job engagement, and meaningful work, thereby providing valuable insights for both research and practical applications.

This study has several contributions. From a theoretical standpoint, it extends existing research by introducing and examining the moderating role of meaningful work in the relationship between well-being and job engagement among blue-collar workers drawing on the Self-regulation Theory, the Job Characteristics Model, and Positive Psychology perspectives. This integration offers a holistic framework that elucidates the intricate dynamics among these constructs, revealing how meaningful work operates as a dynamic force that shapes the relationships between well-being and job engagement. By bridging these theoretical perspectives, the study advances our comprehension of which conditions strengthen the impact of well-being on job engagement.

In practical terms, the results of this study carry substantial implications for organizations aiming to enhance employee well-being and job engagement within the context of blue-collar work. Recognizing the role of meaningful work as a possible moderator empowers organizations to design interventions and strategies that promote a work environment conducive to fostering both meaningful work experiences and enhanced well-being. In conclusion, this study contributes to the understanding of the intricate interplay between well-being, meaningful work, and job engagement among blue-collar workers. By introducing and exploring the moderating role of meaningful work, the study unveils the mechanisms through which these constructs interact, thereby offering valuable insights for both research and practice. This holistic perspective enhances our comprehension of how individuals derive purpose and fulfillment from their work, ultimately impacting their overall well-being and engagement within the distinctive context of blue-collar employment.

2. Theory and Hypothesis Development

2.1. Relationship between Well-being and Job Engagement

The idea of job engagement has a significant influence on how well employees perform and how satisfied they are at work, according to recent research in

organizational studies. Job engagement pertains to an individual's enthusiastic participation in their designated role, reflecting a personal connection they establish with their responsibilities and deriving motivation from the inherent rewards of the work (Roberts & Davenport, 2002). The genuine expression of self while fulfilling assigned duties is a central aspect of this notion, as individuals effectively integrate their own identities in the process (Kahn & Fellows, 2013).

Job engagement, a one-dimensional construct, is perceived as the complete commitment of an individual to a specific job role (Rich et al., 2010). This involves a dynamic harmony between the person and their responsibilities, where enthusiasm and personal investment come together to nurture a meaningful and purposeful work experience (Truss et al., 2013). As described by Kahn (1990), job engagement involves the simultaneous utilization and manifestation of an individual's desired self by means of actions that strengthen connections with both job-related duties and coworkers. This encompasses being completely present and energetically carrying out all facets of the job role. Dávila and Finkelstein (2013) characterize job engagement as a positive mental state of contentment in one's work, marked by heightened levels of energy and psychological resilience in connection with the job, and a readiness to invest effort even in the face of difficulties. In other words, job engagement entails an unwavering dedication that goes beyond mere task completion; it encompasses a genuine enthusiasm that transforms routine work into a purposeful endeavor. Thus, engaged workers manifest their genuine identities by means of active physical engagement, heightened cognitive acuity, and profound emotional connections (Truss et al., 2013).

Research indicates a significant positive association between job engagement and proactive work behavior (Warshawsky et al., 2012), job performance (Bakker & Bal, 2010), and organizational citizenship behavior (Rich et al., 2010). Drawing on the Self-determination Theory, it is reasonable to expect that job engagement may also be linked to well-being. Self-determination theory (Carver & Scheier, 1981) theory is a psychological framework that focuses on how individuals set and pursue goals in order to manage their behavior, emotions, and cognitive processes. This theory emphasizes the dynamic nature of self-regulation, where individuals continuously monitor their progress, adjust, and exert effort to achieve desired outcomes (Carver & Scheier, 1981).

When individuals experience higher levels of well-being, they are more likely to be intrinsically motivated and engaged in their jobs. Well-being encompasses both positive affect (experiencing positive emotions) and life satisfaction (overall contentment with life). Limited research on blue-collar workers' well-being indicates its link with work related variables such as job crafting, workaholism, work engagement, stress, and work-life balance (Brand-Labuschagne et al., 2012; Haar & Roche, 2013; Napholz, 2005; Nielsen & Abildgaard 2012; Siu, 2002; Vestling et al., 2003). Extending these studies, we propose that when blue-collar workers experience positive emotions and feel satisfied with their lives, they are more likely to approach their job tasks with enthusiasm, energy, and dedication. This positive emotional state may contribute to a deeper engagement with their work, as they perceive their job as a meaningful and fulfilling aspect of their lives (Ryan & Deci, 2000).

Building on the Self-regulation Theory, the link between well-being and job engagement can be explained through a dynamic interplay of cognitive, emotional, and behavioral processes. Well-being is described as a state marked by a positive mood and a sense of vitality, where individuals experience feelings of energy and engagement with life (Greenglass & Fiksenbaum, 2009). Characterized by a positive state of mental and emotional health, it provides a foundation that enhances an individual's capacity for effective self-regulation (Singh & Sharma, 2018), which in turn may lead to heightened job engagement. When an individual experiences well-being, they are more likely to possess a positive self-concept and higher self-esteem (Bandura, 1997). This positive self-perception facilitates the development of self-efficacy beliefs, which contributes to one's belief in their ability to successfully regulate their actions and achieve desired outcomes (Bandura, 1997). With a strong sense of self-efficacy, individuals are more motivated to set ambitious goals and invest effort in pursuing them, a critical aspect of self-regulation (Latham & Locke, 1991; Lock & Latham, 1990). Moreover, individuals with higher levels of well-being tend to have better emotional regulation skills (Carver & Scheier, 1981). This emotional regulation, an essential facet of self-regulation, allows individuals to effectively manage negative emotions and stressors that may arise in the workplace (Chandra et al., 2020). By effectively managing emotions, white-collar workers can optimize their cognitive resources, remain adaptable in dynamic work settings, and ultimately contribute to a more positive and thriving work environment. This exemplifies the intricate connection between self-regulation, emotional management, well-being, and sustained job engagement within the white-collar job context. Furthermore, well-being is associated with a cognitive orientation toward positivity and growth (Fredrickson, 2001). This positive cognitive bias aligns with Self-regulation Theory's emphasis on focusing attention on progress, successes, and opportunities, which in turn reinforces motivation and engagement in job-related tasks.

Taken together, these mechanisms informed by Self-regulation Theory create a reciprocal relationship: well-being enhances an individual's capacity for effective self-regulation, facilitating goal pursuit, emotion regulation, and cognitive focus. In turn, this heightened self-regulation positively influences job engagement by fostering a sense of purpose, determination, and enthusiasm in one's work tasks. As employees experience a greater sense of accomplishment, satisfaction, and positive affect, their overall well-being is further nourished, creating a reinforcing cycle that ultimately strengthens their dedication and engagement in their job roles. This synergy between well-being and job engagement, rooted in self-regulation processes, underscores the importance of promoting well-being as a catalyst for fostering meaningful and sustained job engagement. Based on these insights, Hypothesis 1 of the study is formulated as follows:

Hypothesis 1. Well-being is positively associated with job engagement.

2.2. Moderating Role of Meaningful Work

Meaningful work is conceptualized as the overall assessment that the tasks individuals undertake in their professional life contribute to important, meaningful, or valuable objectives that align with their core existential values (Allan et al., 2019).

Several studies in the related literature have presented various facets of meaningful work. Göçen and Terzi (2019) have synthesized these findings and identified six distinct dimensions of meaningful work. Accordingly, meaning at work dimension encompasses self-discovery, personal development, alignment with a greater purpose, a sense of spiritual connection, and spiritual satisfaction in one's job or career (Steger et al., 2012). Search for meaning dimension refers to a quest for a deeper purpose and significance in their work (Steger et al., 2006). Work relationship entails feeling a sense of belonging, perceiving value from colleagues, enjoying interactions with them, and experiencing mutual satisfaction in work-related relationships (Bendassoli et al., 2015). Transcendence at work represents passion, spiritual fulfillment, and inner peace at work, whereas humility at work is the practice of maintaining a humble and modest demeanor (Göçen & Terzi, 2019). Finally, meaning leadership at work refers to helping and inspiring employees to find purpose and fulfillment in their professional lives (Göçen, 2021).

The concept of meaningful work goes beyond the confines of a job description. It is rooted in the profound sense of purpose and significance that individuals derive from their tasks (Lips-Wiersma et al., 2016). While it might be seen as a variant of work value, its true essence lies in the alignment of an employee's values with the reinforcing elements present in their work environment (Lips-Wiersma et al., 2016). This alignment establishes a deep connection between individuals and their roles, emphasizing contribution, impact, and resonance with personal values (Um & Bardhoshi, 2022; West, 2023). The integration of well-being, which encompasses emotional, mental, and social dimensions, with the concept of meaningful work enriches its role in nurturing job engagement (Helzer & Kim, 2019; Kyprianides & Easterbrook, 2020; Teufer & Grabner-Kräuter, 2023; Venzin, 2020). Research underscores the potential of meaningful work to evoke positive emotions, elevate overall life satisfaction, and amplify job engagement (Venzin, 2020; May et al., 2004), particularly within the context of blue-collar work. Thus, we suggest that meaningful work may act as a potential moderator that interacts with well-being to enhance job engagement drawing insights from the Job Characteristics Model and Positive Psychology.

The Job Characteristics Model underscores the role of tasks that possess significance and variety in enhancing job engagement (Hackman & Oldham, 1976). In the context of blue-collar workers, tasks that hold personal meaning and offer diverse challenges contribute to heightened engagement and motivation. The Job Characteristics Model highlights the impact of core job dimensions on intrinsic motivation and job satisfaction, aligning seamlessly with the concept of meaningful work (Um & Bardhoshi, 2022; West, 2023). Prior research emphasizes the significant contribution of meaningful work to job satisfaction, job engagement (May et al., 2004), and overall well-being (Arnold et al., 2007). This prompts an exploration of the moderating role of meaningful work in the intricate relationship between well-being and job engagement.

From the perspective of Positive Psychology, a robust sense of meaning aligns with principles that foster positive emotions, personal growth, and a sense of purpose. Positive emotions, in turn, elevate overall well-being and have the potential to amplify job engagement. Individuals who find purpose and personal growth in their work tend to approach tasks with dedication and enthusiasm, thereby enhancing job

engagement (Seligman & Csikszentmihalyi, 2000). Through the lens of Positive Psychology, the exploration of meaningful work delves into the capacity of employees to derive purpose and fulfillment from their roles (West, 2023). This perspective, interwoven with well-being considerations, aligns with the principles of Positive Psychology, emphasizing strengths, positive emotions, and meaning (Seligman, 2002). Positive Psychology underscores the role of meaningful work in nurturing positive emotions and overall life satisfaction (Venzin, 2020), reinforcing the intricate connection between meaningful work, well-being, and job engagement.

As explained above, meaningful work involves feeling that one's work contributes to something meaningful, that their efforts have a positive impact, and that they are valued for their contributions. It holds vital importance for blue-collar employees as they encounter a greater lack of a sense of meaningfulness in their work compared to those in white-collar positions (Lips-Wiersma et al., 2016). Blue-collar workers grapple with the challenge of finding meaning in their daily tasks, primarily because their roles frequently have limited autonomy, creativity, and decision-making opportunities (Saari et al., 2021).

While research has shown that meaningfulness is a driver of job engagement across various occupational groups (Hirschi, 2012), there is currently a gap in the literature regarding a dedicated examination of these factors within the context of blue-collar work. Therefore, we hypothesize that blue-collar workers who find their work to be meaningful will exhibit greater job engagement even in circumstances where their overall well-being might be challenged. This suggests that the presence of meaningful work can act as a buffer against the potential negative effects of low well-being on job engagement in this particular occupational group. The relationship between well-being and job engagement is not uniform among blue-collar workers. Rather, it varies depending on the degree of meaningfulness they attach to their work. Those who derive a strong sense of meaning from their job are expected to maintain higher levels of job engagement, even when faced with challenges to their overall well-being. Thus, the relationship between well-being and job engagement is moderated by meaningful work, such that the positive association between well-being and job engagement will be stronger when blue-collar workers perceive a higher sense of meaning in their job. Guided by these insights, Hypothesis 2 of the study is structured as follows:

Hypothesis 2. Meaningful work moderates the influence of well-being on job engagement.

The hypotheses generated from our theoretical analysis are visually represented in the research model (Figure 1).

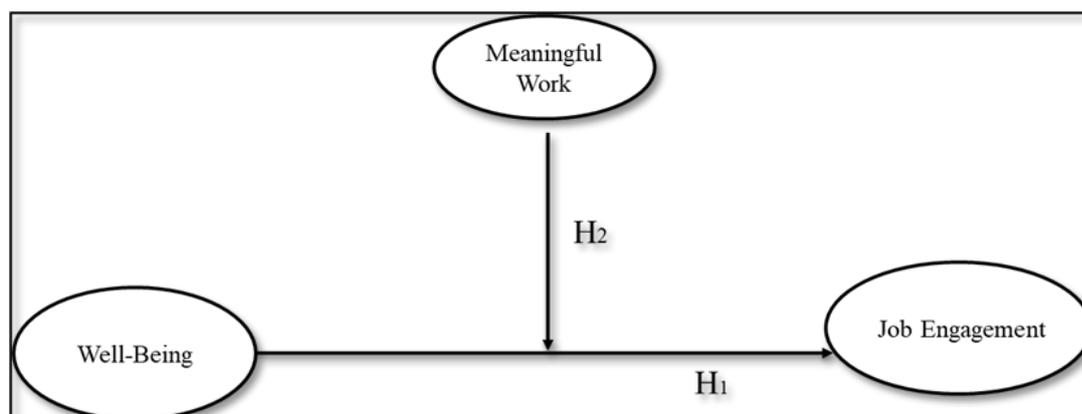


Figure 1. Research Model

3. Methodology

3.1. Sample

In this study, in line with the research model, the focus was on blue-collar workers employed in the manufacturing sector of Turkey in roles typically involving manual labor. A total of 519 surveys were distributed among these workers, with the aim of soliciting their involvement in the study. Ultimately, 243 completed surveys were received, indicating a strong level of interest and participation. Upon careful analysis, the dataset underwent further refinement, resulting in a final sample of 237 valid responses. This curation process involved the removal of 5 incomplete survey responses, thus enhancing the reliability and robustness of the dataset.

This study selected blue-collar workers as its research focus due to the unique nature of their work environment. The physically demanding and repetitive tasks often performed by blue-collar employees make the search for meaning in their work highly relevant. By concentrating on this specific group, the research aims to explore the factors affecting well-being and engagement. Investigating meaningful work and engagement among blue-collar employees provides valuable insights into the fields of work psychology and human resource management.

Regarding the demographic composition of the participants, a significant majority were identified as male (68%), while the remaining participants were female (32%). Furthermore, a substantial proportion of the participants possessed a high school degree (52.4%), and the age distribution predominantly ranged from 25 to 47 years.

3.2. Measurement Instruments

This study utilized a comprehensive methodological approach for data analysis, employing Smart PLS 4 and IBM SPSS 26 software. The utilization of these tools enabled the investigation of various facets of the collected data, encompassing assessments of validity, reliability, and Bootstrapping analyses. The psychometric properties of the measurement scales were rigorously validated for the Turkish context through confirmatory factor analysis. This meticulous process ensured the soundness and appropriateness of the scales for measuring the intended constructs within the local linguistic and cultural framework. By employing these established statistical techniques

and software, the study aimed to rigorously evaluate the conceptual model and hypotheses, thereby enhancing the reliability and validity of the research findings. Three scales were employed, using a 5-point Likert-type structure.

Job Engagement: To measure the level of job engagement among blue-collar workers, the study utilized the 3-item version of the UWES-3 (Utrecht Work Engagement Scale) developed by Schaufeli et al. (2006). The Turkish translation of this 3-item, single sub-dimension version, as provided by Güler et al. (2019), was employed.

Well-Being: To assess participants' psychological well-being, a one-dimensional, 8-item scale developed by Diener et al. (2010), and adopted into the Turkish culture by Telef (2013) was used.

Meaningful Work Scale: The assessment of participants' sense of meaningfulness at work was conducted using a 21-item, 6-dimensional scale. This scale, developed by Göçen and Terzi (2019), encompassed dimensions such as meaning at work, search for meaning at work, work relationships, transcendence at work, humility at work, and meaning leadership at work.

4. Findings

The data collected for this study underwent a rigorous assessment of validity and internal consistency. The criteria for evaluating validity included Cronbach's Alpha ($CA \geq 0.70$), data A reliability coefficient ($\rho_A \geq 0.70$), composite reliability ($CR \geq 0.70$) (Hair et al., 2017), and average variance extracted ($AVE \geq 0.50$), following the guidelines suggested by Fornell and Larcker (1981). Multicollinearity was evaluated using the variance inflation factor ($VIF < 5$), while the goodness of fit was assessed using the standardized root mean square residual ($SRMR < 0.08$) as per Chen (2007). Additionally, the goodness of fit values of the model (d_{ULS} and d_G ; $p > 0.05$) and the normed fit index ($NFI \geq 0.90$) were examined based on the criteria outlined by Hair et al. (2017) and Ringle et al. (2015), respectively. The outcomes of these analyses revealed that the employed measurement scales exhibited satisfactory levels of validity and reliability. Furthermore, there were no indications of linearity issues, and the model's goodness-of-fit values were deemed acceptable, as evidenced by the results presented in Table 1.

Table 1. Validity- Reliability Results of the Scale and Model Goodness Fit Values

Variables	CA	rho-A	CR	AVE	Highest VIF	SRMR	d-ULS	d_G	NFI	
Job Engagement	.776	.812	.901	.610	1.712	.041	1.218 ($p > 0.05$)	2.172 ($p > 0.05$)	.964	
Well-Being	.723	.793	.876	.717	2.981					
MOW	MAW	.711	.781	.845	.529					2.715
	SMW	.703	.712	.824	.509					4.213
	WR	.743	.805	.887	.597					2.112
	TW	.736	.801	.881	.581					2.342
	HW	.704	.715	.827	.513	4.115				
MLW	.772	.808	.889	.606	1.698					

Note. MOW: Meaning of Work; MAW: Meaning at Work; SMW: Search for Meaning at Work; WR: Work Relationships; TW: Transcendence at Work; HW: Humility at Work; MLW: Meaning Leadership at Work

To establish the distinctiveness among the factors, a discriminant validity analysis was conducted, comparing the correlation values with the square root of the average variance extracted (AVE) for each factor, following the approach outlined by Fornell and Larcker (1981). The results indicated that the AVE values exceeded the

correlation values, confirming a clear distinction and highlighting the uniqueness of each variable. Additionally, when exploring their associations, significant relationships were observed among the factors, providing strong support for the distinctiveness of each construct, as depicted in Table 2.

Table 2. Correlation and Discriminant Validity Values

Variables	√AVE	JE	WB	MWF1	MWF2	MWF3	MWF4	MWF5	MWF6
JE	.781	1	.517**	.355**	.332**	.298**	.298**	.314**	.367**
WB	.846		1	.659**	.561**	.400**	.557**	.484**	.475**
MWF1	.727			1	.665**	.283**	.451**	.466**	.416**
MWF2	.713				1	.290**	.388**	.348**	.341**
MWF3	.772					1	.475**	.478**	.450**
MWF4	.762						1	.741**	.732**
MWF5	.716							1	.693**
MWF6	.778								1

Note. **Correlation is significant at the 0.01 level (2-tailed).

In order to comprehensively investigate the hypothesized interactions between job engagement, well-being, and meaningful work, an in-depth analysis of the explanatory power (R^2), effect size (f^2), and the required outcomes for assessing out-of-sample predictive capability (Q^2) values of the variables was conducted to better understand the complex dynamics (see Table 3). The results of these analyses reveal that R^2 values explain a significant 50.6% of the variance, with the remaining variance attributed to different factors. In particular, the f^2 results showed that well-being and meaningful work have an impact on job engagement. To strengthen the research framework, the study also examined the Q^2 values for the endogenous variables within the model and showed that both well-being and meaningful work emerged as predictive factors, thus increasing the predictive fitness of the model (Hair et al., 2017; Hair et al, 2006; Henseler, 2015).

Table 3. Impact Coefficient Values

Variables	R^2	f^2		Q^2 Predict
		Job Engagement	Well-being	
Well-being	.506			.282
MWF1.		-0.214	-0.098	
MWF2.		-0.403	0.230	
MWF3.		0.007	-0.150	.104
MWF4.		0.168	-0.124	.123
MWF5.		0.245	-0.382	.113
MWF6.		0.005	0.226	

To analyze the second hypothesis of the study, each sub-dimension of the meaningful work variable was added to the model as a moderating effect (Table 4).

Table 4. Research Model Effect Coefficients

Hypotheses	β Value	Standard Deviation	T Statistics	P
Well-Being -> Job Engagement	.630	.432	2.595	.009
Moderating Effect 1-> Job Engagement	-.398	.132	2.056	.021
Moderating Effect 2-> Job Engagement	-.427	.514	2.125	.013
Moderating Effect 3-> Job Engagement	-.373	.129	2.031	.034
Moderating Effect 4-> Job Engagement	-.362	.111	2.024	.038
Moderating Effect 5-> Job Engagement	-.372	.125	2.029	.032
Moderating Effect 6-> Job Engagement	-.251	.101	2.002	.040

The findings in Table 4 show that well-being has a similar and significant effect on job engagement ($p=.009$; $p<0.05$), which supports H_1 of the study. In other words, the well-being of blue-collar employees affects their job engagement levels. In addition, meaningful work has a moderating effect on the effect of well-being on job engagement ($p=.021$; $p=.013$; $p=.034$; $p=.038$; $p=.032$; $p=.040$ $p<0.05$). Additionally, all interaction terms generating the moderating effect are statistically significant and directional ($\beta_1=-.398$; $\beta_2=-.427$; $\beta_3=-.373$; $\beta_4=-.362$; $\beta_5=-.372$; $\beta_6=-.251$). Hence, meaningful work moderates the connection between well-being and job engagement among blue-collar employees, confirming H_2 . Specifically, the relationship between well-being and job engagement is influenced by the level of meaningful work, suggesting that high meaningful work corresponds to a positive well-being-job engagement link while low meaningful work alters this relationship by negatively affecting job engagement through well-being. Therefore, the relationship between well-being and job engagement is impacted by the level of meaningful work, resulting in different outcomes depending on whether meaningful work is high or low. Figure 1 presents the findings of the structural equation modelling analysis covering all these results.

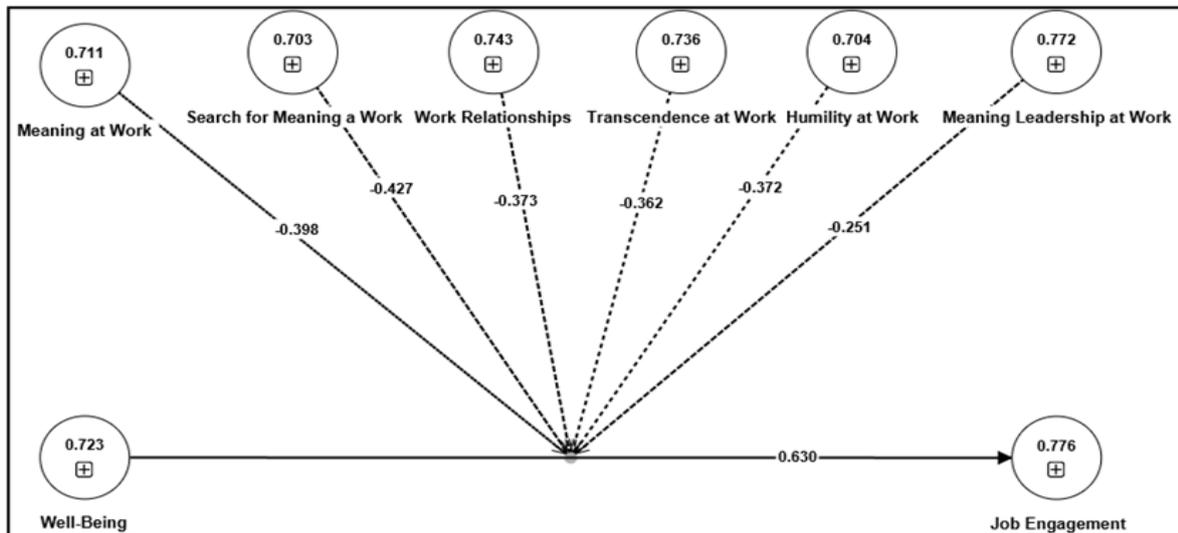


Figure 2. Result of the Research Model

5. Conclusion

Key findings

Based on the comprehensive analysis of the study's results, several noteworthy key findings emerge, shedding light on the intricate interplay between well-being, meaningful work, and job engagement among blue-collar employees. Firstly, the investigation supports the significant influence of well-being on job engagement, substantiating the validity of Hypothesis 1. This implies that the well-being levels of blue-collar employees play a pivotal role in crafting their levels of job engagement, indicating a direct and positive relationship between these constructs, a finding that aligns with the results of various existing studies. For instance, the research conducted by Bakker and Demerouti (2007) agrees with the findings. Applying the Job Demands-

Resources (JD-R) model, their study examines both negative and positive aspects of employee well-being. It specifically explores the association between employee well-being, performance, and the subsequent impacts of this association, including job engagement. Another pertinent study is the research conducted by Xanthopoulou et al (2009). In their study, the authors investigate the longitudinal relationships between work resources, personal resources, and job engagement based on the Conservation of Resources theory. Their findings support the hypothesis that various types of resources and well-being translate into a cycle that determines employees' successful adaptation to their job environment. The study conducted by Hakanen et al. (2006), on the other hand, investigates the impacts of the Job Demands-Resources Model on employee well-being and job engagement. Their study specifically examines how the model influences employees' work-related well-being and their level of job engagement. The empirical analysis of the current study supports previous studies in the literature that focus on the effects of well-being on job engagement. The findings reveal the existence of a positive and significant effect of well-being on job engagement and this finding is supportive of hypothesis H₁.

Moreover, the study highlights a significant moderating effect of meaningful work on the relationship between well-being and job engagement. This substantial moderating role is evidenced by the presence of statistically significant interaction terms and their respective directionalities. This nuanced finding underscores that the impact of well-being on job engagement is not uniform across different levels of meaningful work. Instead, the presence of meaningful work introduces variability in the strength and direction of this relationship, suggesting that the context of meaningful work acts as a significant boundary condition that shapes how well-being influences job engagement. This finding, forming the second hypothesis of the study indicates that while well-being serves as a foundational driver of job engagement, the extent and nature of its impact are contingent upon the presence of meaningful work. This aligns with the theoretical notion that the significance of well-being is not uniform but rather interacts with contextual factors to produce varying outcomes. The dynamic nature of this relationship highlights the importance of considering both well-being and meaningful work in tandem when aiming to enhance job engagement among blue-collar employees. The absence of direct demonstrations of these findings within the existing literature is not uncommon, further supporting the second hypothesis of this study, which in turn underscores the study's originality and quality. Nonetheless, However, it is possible to identify studies that share similarities in quality with this research within the same subject domain. One relevant study is by Harzer and Ruch (2012). Their research investigated the association between positive workplace experiences, such as meaningfulness at work, and the alignment of situational conditions, such as well-being at work, with an individual's distinct character strengths, and the subsequent impact on commitment, exemplified by job engagement. Another study is the work of Grant et al. (2007) wherein the impact of managerial practices on the well-being of employees was examined. While the study subtly touched upon the implications of meaningful work and job engagement, these aspects were not explicitly outlined.

In summary, the findings of the current study provide a deeper understanding of the mechanisms underlying the complex relationship between well-being, meaningful work, and job engagement. They emphasize the necessity of recognizing

and cultivating meaningful work as a crucial organizational factor that interacts with well-being to shape employees' engagement levels. As such, organizations seeking to optimize job engagement among their blue-collar workforce should not only focus on enhancing well-being but also on creating an environment that fosters meaningful work experiences.

Theoretical implications

The theoretical implications of this study advance our understanding of the complex interplay between well-being, meaningful work, and job engagement. The findings align with and extend Self-determination Theory and Positive Psychology frameworks. The positive association between well-being and job engagement supports the fundamental principles of Self-determination Theory, highlighting that employees experiencing higher levels of well-being are more intrinsically motivated and engaged in their job roles. This aligns with Self-determination Theory's emphasis on intrinsic motivation as a driving force behind sustained engagement. Additionally, the moderating effect of meaningful work on the well-being–job engagement relationship reflects the principles of Positive Psychology, which emphasize the role of meaning, strengths, and positive emotions in fostering engagement and well-being. The study's results contribute to the nuanced understanding of how these theoretical frameworks interact and manifest within the organizational context.

Additionally, the study's exploration of the moderating role of meaningful work provides a nuanced perspective that extends the Job Characteristics Model. By emphasizing the importance of meaningful work in shaping the relationship between well-being and job engagement, the study underscores the need to consider additional job dimensions beyond those traditionally highlighted in the model. This suggests that job characteristics, such as alignment with personal values and the perceived significance of tasks, play a critical role in influencing the strength and nature of the well-being–job engagement relationship.

Practical implications

The study's findings provide a deeper understanding of the mechanisms underlying the complex relationship between well-being, meaningful work, and work engagement. They highlight the need to recognize and develop meaningful work as a crucial organizational factor that interacts with well-being to shape employee engagement levels. Therefore, Managers should adopt a supportive leadership style in the blue-collar work environment to enhance the well-being and job engagement levels of employees. Additionally, blue-collar workers should have diversified tasks to increase their interest in their jobs and the level of meaningfulness associated with their work. Additionally, organizations seeking to optimize job participation among their blue-collar workforce should focus not only on increasing well-being, but also on creating an environment that fosters meaningful work experiences.

Limitations and future research directions

This study acknowledges several constraints that warrant careful consideration when interpreting its findings. A notable limitation pertains to the exclusively Turkish participant sample, potentially curbing the extensibility of outcomes to diverse cultural milieus. Furthermore, the reliance on self-report measures introduces the possibility of social desirability bias skewing responses. Another salient constraint surfaces from the

deployment of cross-sectional data, engendering challenges in establishing causal relationships. Lastly, the study's exclusive reliance on quantitative methodologies without incorporating qualitative facets such as in-depth interviews constrain the richness of insights. To advance the field, future investigations could surmount these limitations by adopting longitudinal designs, qualitative methodologies, and diversifying research locales to engender a more holistic understanding.

Araştırma ve Yayın Etiği Beyanı

Bu çalışmanın tüm hazırlanma süreçlerinde etik kurallara uyulduğunu yazarlar beyan eder. Aksi bir durumun tespiti halinde Ticari Bilimler Fakültesi Dergisinin hiçbir sorumluluğu olmayıp, tüm sorumluluk çalışmanın yazarlarına aittir. Bu çalışma etik kurul izni gerektirmemektedir.

Yazar Katkıları

Meral KIZRAK, çalışmada Giriş, Sonuç, Kuramsal Çerçeve ve Yöntem bölümlerinde katkı sağlamıştır. Gamze GÜNER KİBAROĞLU çalışmada Giriş, Sonuç, Kuramsal Çerçeve ve Yöntem bölümlerinde katkı sağlamıştır. 1.yazarın katkı oranı: %50, 2. yazarın katkı oranı: %50.

Çıkar Beyanı

Yazarlar arasında çıkar çatışması yoktur.

Research and Publication Ethics Statement

The authors declare that ethical rules are followed in all preparation processes of this study. In case of detection of a contrary situation, Journal of Commercial Sciences has no responsibility, and all responsibility belongs to the authors of the study. This study does not require ethics committee approval.

Author Contributions

Meral KIZRAK contributed to the study in Introduction, Conclusion, Theoretical Framework and Methodology sections. Gamze GÜNER KİBAROĞLU contributed to the study in Introduction, Conclusion, Theoretical Framework and Methodology sections. 1st author's contribution rate: 50%, 2nd author's contribution rate: 50%.

Conflict of Interest

There is no conflict of interest between the authors.

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