

Development of The Work Engagement Scale

Development of The Work Engagement Scale

Qudsia Hareem

Department of Humanities, COMSATS University Islamabad, Lahore Campus.

Dr. Mahira Ahmad

Assistant Professor, Department of Humanities, COMSATS University Islamabad,
Lahore Campus.

Email: mahira.ahmad@cuilahore.edu.pk

Zaeema Farooq

Lecturer, Department of Humanities, COMSATS University Islamabad, Lahore
Campus.

Hafsa Mukhtar

COMSATS University Islamabad, Lahore Campus.

Received on: 07-01-2024

Accepted on: 10-02-2024

Abstract

The aim of the study was to develop a culturally relevant work engagement scale. The scale was developed to analyse the engagement of working population in their work using Kahn's (1990) theory of work engagement. A sample of 250 teachers (48 males and 152 females) ranging in age from 20 to 68 years (*Mean*: 35.92, *SD*: .553) were selected through convenient sampling from different private and public educational institutions of Pakistan. The Work Engagement Scale was developed in four stages, including Stage 1: Item Generation and Empirical Validation, Stage 2: Factor Structure and Construct Validity, Stage 3: Pilot Study, and Stage 4: Exploratory Factor Analysis. In stage 4, item factorability was analysed using KMO and Bartlett (0.93) which suggested that the sample was adequate for scale development. The commonalities for all items were above 0.3, showing that each item had some common variance with the other items. The rotated component matrix loaded 28 items on five factors, and after detailed qualitative analysis, those factors were named physical engagement: $\alpha=0.84$, cognitive engagement: $\alpha=0.63$, emotional engagement: $\alpha=0.84$, organizational engagement and motivation: $\alpha=0.68$, and virtues and self-alignment: $\alpha=0.86$. Hence, the Work Engagement Scale: $\alpha=0.95$ is a 28-item, culturally reliable scale developed in Urdu.

Keywords: Work Engagement, Physical Engagement, Cognitive Engagement, Emotional Engagement, Motivation and Organizational Engagement, Virtues and Self-Alignment, Exploratory Factor Analysis

Development of The Work Engagement Scale

INTRODUCTION

In the midst of our modern lives' hurry, engagement has become more than simply a phrase; it is the unspoken pulse of our existence (Kahn, 1990). In the crowded city of everyday existence, work engagement unfurls its roots in the soil of one's daily tasks, transforming the mundane into a symphony of purpose. Imagine a painter, fully immersed in the strokes of a canvas, tapping into what Freud might call the unconscious reservoir of creativity (Freud, 1923). This parallel holds true in the realm of work engagement, where each task becomes a stroke on the canvas of professional journey. As the day progresses, engagement extends beyond the individual, weaving a narrative that resonates throughout organizational corridors. Just as a skilled conductor orchestrates a masterpiece, dedicated people synchronize their efforts to create a harmonious melody in the workplace. As Freud conceptualized the intricate interplay between the conscious and unconscious mind, his ideas resonate with the notion that engagement is not merely a surface-level phenomenon but reaches into the depths of our psychological architecture (Freud, 1923).

In the realm of daily life, attention is constantly summoned by an array of tasks, screens, and duties from the moment of awakening. Yet, amid this discord, a fundamental question arises: What truly engages human beings at their core? To unravel this mystery is to delve into the very essence of what it means to be human. As William James once remarked, "My experience is what I agree to attend to" (James, 1890). This declaration encapsulates the crux of human engagement, the conscious choice of where to direct attention defines the contours of human experience. It is in these choices, in the deliberate selection of focal points amidst the myriad distractions, that the essence of humanity emerges. For the attention gathering performance, one can find the canvas upon which unique work stories unfold, painting the portrait of existence. Workplace engagement, in particular, occupies a special place in complicated fabric. It's not just a number on a human resources report or a management strategy; it's the thread that runs through the fabric of our lives, connecting jobs to personal lives, well-being, and feeling of purpose (Bakker & Demerouti, 2008). Employee well-being is enhanced with job satisfaction and work engagement (Javaid et al., 2023a). Workplace stress affects quality of life (Javaid et al., 2023b). Having diverse workforce increases engagement and productive outcomes (Khan & Javaid, 2023). Conflicts should be resolved at workplace to have psychological well-being (Ali et al., 2024).

Workplace engagement has many different dimensions. It was discovered that engagement has a major impact on individuals' professional and personal life by traversing its historical roots and present manifestations. Examining the elements that promote and inhibit engagement will equip organizations looking to create a vibrant, engaged workforce with important insights and practical solutions (Albrecht & Bakker, 2018). More importantly, the fundamental reality that engagement is not limited to the workplace should be highlighted; it resonates in all aspects of one's life, transcending the barriers between work and personal fulfilment (Bakker, 2011). This is more than just comprehending engagement; it is also about recognizing its common effect on the complex interwoven components of everyone's life. Growth in the movement of positive psychology originated interest in engagement

The term of workplace engagement was coined by famous organizational psychologist William A. Kahn in 1990. He is widely considered as the initial researcher to do research and compose articles regarding engagement, which he named "personal engagement." In his key

Development of The Work Engagement Scale

article, Kahn emphasized that individual engagement or disengagement happens when people engage in or take out their selves in work-role performance' (p. 702). Individuals that are personally engaged at work express themselves honestly in three distinct forms: intellectually, physically and emotionally. This genuine expression of self-in-role contrasts with disengagement, in which the individual "decouples" their actual self from their professional position and suppresses engagement. Personal engagement is described as the concurrent application and manifestation of an individual's 'preferred self' in work behaviors that enable connections between work and individuals, personal presence, including active complete performance in roles (Kahn, 1990).

Kahn (1990) work engagement model highlights the psychological factors contributing to the work engagement and disengagement. The model defines engagement as the complete physical, cognitive and emotional immersion and participation in work. It highlights that psychological requirement of meaningfulness, purpose, safety, connection to others and availability are important to promote work engagement. Kahn's work further can be extended to understand the implication of engagement not only to the organizational setup but to other areas of life, for example, to virtues, religious and personal practices which help the individual to connect with the purpose and meaning of the work. This ultimately helps to achieve organizational objectives and goals. According to Kahn (1990) Meaningfulness, safety, and availability are three important factors that impact an employee's capability to connect profoundly with the organisational aim, culture, and day-to-day tasks of the function. The objective of the work is often referred to as its meaningfulness. The term safety refers to an employee's psychological safety at work, whereas availability pertains to an employee's physical and mental capacity to complete a task.

Coming towards statistics of work engagement Pakistan's employment-to-population ratio in 2021 was 47.9%. Work engagement in the Pakistani context reflects a dynamic interplay between the unique cultural values and organizational dynamics present in the country. Employee engagement is an important factor in Pakistan's workplaces for organizational success. Ali (2015) recognized that the nature of employee's engagement is affected by Pakistan's hierarchal structure, culture, family ties, collectivism, religious perspectives. Additionally, Rehman and Rehman (2014) indicated that for employees in Pakistan emotional connections within the workplace have high value, which results in seeking opportunities, collective achievement and collaboration. If employees use collaborative strategies it is effective for organisations and educational outcomes(Ramzan et al., 2023a). Leaders may influence and persuade with their words (Ramzan et al., 2023b). Language skills and good communication fosters positive emotions (Javaid et al., 2023c). Amer and Sadiq (2020) suggested that to foster engagement in Pakistani employees the sense of belonging, intrinsic motivation and satisfaction with job have important roles.

Employee commitment and emotional investment in their job, the organization, and its goals are all parts of the complex concept of employee engagement at work (Bakker & Leiter, 2010). This phenomenon explores the depth of an individual's passion, devotion, and involvement in their professional duties and goes beyond simple work pleasure (Saks, 2006).

Work engagement is a complicated concept in organizational psychology because many elements interact with both the work environment and individual characteristics to influence how engaged individuals are at work. The variables include both human and organizational

Development of The Work Engagement Scale

factors that influence how engaged employees are at work.

LITERATURE REVIEW

In today's fast-paced and competitive world, organizations are recognizing the importance of employee engagement in driving performance and success. The idea of employee engagement places a strong emphasis on workers' passion, excitement, and proactive approach to their work (Saks, 2006). Employers want their staff members to be committed to their work, take initiative in their personal growth, and aim for excellence in performance. Companies essentially want workers that are totally devoted to their work and highly engaged (Bakker & Leiter, 2010). In order to attain employee engagement, workers must believe that their employer values their contributions, that their efforts contribute to the organization's growth, and that their own goals for advancement, recognition, and income are being realized (Crawford, 2010; Kahn, 1990; Lepine, & Rich, 2010). It's a bit like a blockbuster movie where every employee is not just a character but a superstar, and the plot is a thrilling journey of professional fulfillment. As the curtain rises, employee engagement takes center stage, a mesmerizing performance of dedication, belief, and collective success.

Where extensive research has been conducted on the construct of engagement and its impact on various organizational outcomes (Bakker, 2004; Hakanen et al., 2006; Hallberg et al., 2007; Salanova et al., 2005; & Schaufeli, 2004), the literature highlights different conceptualizations of employee engagement and its definition as "employees' willingness to fully invest themselves physically, cognitively, and emotionally into their work roles" (Bakker & Schaufeli, 2004, p. 187). According to Harter et al. (2002) engaged workers not only have higher job satisfaction and loyalty but also make major contributions to the success of the company as a whole. Studies show that improved employee engagement is associated with higher retention rates because motivated employees are more likely to stay with the company (Schaufeli & Bakker, 2004). Bakker and Demerouti (2008) added that as motivated people are more inclined to put extra efforts therefore, higher work engagement levels are associated with higher performance levels.

Moreover, the complex interactions between the physical, emotional, and cognitive investment from the employees further underline the potential impact employee engagement has on both personal and organizational outcomes (Smith, 2022). As employees become more involved and enthusiastic about their work, they project a positivity that influences everything around them, including the working environment, teamwork, and ultimately the overall performance of the organization (Bakker & Demerouti, 2008; Gilson, Harter, & May, 2004).

Kahn conducted one of the seminal studies on employee engagement in 1990. Kahn's study was theoretically based on Erving Goffman's assumption that people's commitment to and disengagement from their positions can fluctuate (Kahn, 1990). However, Kahn recognized that Goffman's focus was on temporary personal contacts, but that a different framework was needed to incorporate the ongoing, highly emotional, and psychologically nuanced nature of employees' work engagement (Allcorn & Diamond, 1985).

Furthermore, Holbeche and Springett (2003) assert that employees' perceptions of "importance" in the workplace are inextricably linked to their engagement and therefore performance. People actively seek meaning in their work, they claim, and if organizations

Development of The Work Engagement Scale

don't promote a sense of meaning, people will disengage. Research suggests that individuals seek greater meaning in their employment (70%) than in other parts of their lives, perhaps reflecting the significant time commitment at work (Holbeche & Springett, 2003).

There are several scales constructed to in western culture to measure work engagement, with each scale designed to assess various dimensions and aspects of employee engagement. Based on the scale's unique development, validation, and application. Researchers and organizations can choose a scale that best fits their specific needs and objectives for measuring work engagement. The use of numerous scales and tools created to evaluate this multidimensional construct is essential to understanding and assessing employee engagement. These scales provide organizations with crucial information for boosting employee motivation, contentment, and productivity. The dynamics of work are shaped by cultural values, norms and standards, foreign scales may not be able to fully reflect the complexity of workforce within Pakistan's cultural and professional dynamics. In essence, constructing a work engagement scale within Pakistan ensures cultural relevance, language specificity, and resolves translation and adaptation issue. It is not just a necessity for accurate measurement but also a strategic step towards fostering a more engaged and satisfied workforce in the country.

In conclusions, there is a compelling need for a localized work engagement scale in Pakistan. The Utrecht Work Engagement Scale (UWES) faces criticism for not fully reflecting Kahn's conceptualization and difficulty in differentiation from other measures (Rich et al., 2010; & Cole et al., 2012). Blais et al.'s critique of the Job Engagement Scale (JES) emphasizes its applicability limitations due to length and variables are subjected to biases due to self-reporting (Blais et al., 2022). Hutton criticizes the Gallup Q12 Survey for its narrow questions and weak correlation with business performance, calling into question the reliability of drawing meaningful conclusions about a company's results (Crush, 2009). OLBI is criticized to be limited because its data has limited representation of universities and the data is self-reported and cross sectional (Campos et al., 2012; Khan & Yousof, 2016). Soane et al. (2012) criticized the ISA Engagement scale as the cross-cultural generalization is difficult because the data is UK focused, self-reported and cross sectional. Therefore, developing a new localized scale can provide measurements tailored to overcome the existing gaps. The limitations of currently available scales emphasize the need for a regionally developed scale that can help to assess work engagement in order to promote workforce participation in Pakistan.

METHOD

This chapter includes the definition of the test construction procedure and is centered on a methodological approach to scale development. The research was conducted to develop a Work Engagement Scale culturally relevant to Pakistan and in the native language. Consequently, scale development was carried out with the intention to construct a useful measure to assess, people engagement in workplace environment. The study is concluded in 4 stages: "Stage 1: Item generation and empirical validation, Stage 2: Content Expert Validation, Stage 3: Pilot Testing, and Stage 4: Exploratory Factor Analysis."

Development of The Work Engagement Scale

Stage 1

Item generation and empirical validation

In the first step of item generation the conceptualization of the construct was done through the review of literature. The conceptualization of the construct is as follows:

Work Engagement is operationally defined as a dynamic and interconnected phenomenon marked by profound absorption in which the physical, cognitive, and emotional immersion coexist in harmony. This state is driven by positive virtues, self-alignment to ensure congruence between personal beliefs and professional activities, motivation to drive meaning, and organizational engagement to represent the multifaceted and symbiotic relationship between individuals and organizations.

1. Physical engagement

It describes how actively present and engaged people are in the work they do. Kahn (1990) provided instances of people who characterized themselves as 'flying around' at work while having a high level of personal commitment. He linked increased confidence to the capacity to expend both mental and physical energy during work.

2. Cognitive engagement

It is the extent to which individuals are mentally engrossed in their job, concentrated on their obligations, and making full use of their abilities and knowledge (Kahn, 1990). Employees must comprehend their employer's goals and objectives, in addition to the performance necessary to contribute to the greatest extent possible to them, in order to be engaged at this level. Kahn (1990) also emphasized the importance that people put on their jobs, hypothesizing that more knowledge encouraged more inventiveness and confidence in decision making.

3. Emotional engagement

It relates to how engaged, enthusiastic, and satisfied individuals are with their jobs (Kahn, 1990). This depends on employees' emotional attachment to their employers. To build a sense of belonging at work and encourage workers to believe in the organization's principles and mission, the organization must understand how to foster a healthy, positive relationship. Positive relationships with others, group dynamics, and managerial styles are all activities that can help individuals feel secure and trustworthy (Kahn, 1990).

4. Virtues and Self-Alignment

In the context of work engagement, virtues are good and morally upright attributes displayed by persons in their professional positions (Brown & Trevio, 2006). These characteristics include qualities like integrity, honesty, empathy, humility, and persistence, all of which contribute to an ethical and cooperative working culture. Similarly, workplace self-alignment refers to the alignment of an individual's job activities with their own values, beliefs, and objectives (Den Hartog & Belschak, 2012). This alignment promotes a sense of clarity and harmony in the workplace. It entails doing tasks that appeal to inner motivations and establishing alignment between personal and organizational ideals (Den Hartog & Belschak, 2012; Deci & Ryan, 1985).

5. Motivation and Organizational Engagement

This aspect emphasizes the individual's relationship and interaction with the overall organization i.e., it includes a sense of belonging identification with organizational values, and dedication to the aims and mission of the organization (Kahn, 1990). Motivation with

Development of The Work Engagement Scale

reference to work engagement is defined as the driving force that motivates individuals to commit effort, energy, and tenacity in their job-related activities (Deci & Ryan, 1985). It refers to the internal processes that begin, lead, and maintain goal-directed behavior in the workplace in order to complete tasks and objectives.

Then, in the step two, in order to generate items interviews were conducted with 06 teachers to discuss the topic of work engagement i.e., what is meant by engagement, and to illicit information regarding the variables, dimensions, culturally relevant understanding of the phenomenon, participants' points of view, experiences, and culturally appropriate beliefs about work engagement. Each interviewing session was conducted for around 30 minutes, and was audiotaped with the permission of participants. The researcher noted the important points of the interview and kept the smooth execution of the process. Participants were briefly explained the phenomenon in the native language and were asked to elaborate it. Qualitative analysis was carried out with the help of researcher's notes, and recorded audiotapes verbatim. A total of 38 items were generated through this analysis.

Stage 2

Content Expert Validation

After the generation of 38 culturally appropriate items, the scale was typed in the form of a Likert scale with values ranging from 1 to 7, where 1 is very weak and 7 is very strong, reference to be presented to experts to evaluate the content validity of the items; the scale concept definitions were given to psychologists. They were asked to assess the items' accuracy, relevance to the targeted construct, and level of difficulty. Among the experts, 04 were Ph.D., and 01 was M.Phil. in different fields of humanities. There were 28 items left in the Work Engagement Scale after the items were evaluated by expert validation.

Stage 3

Pilot Testing

Participants

A sample of 50 teachers aged 20 to 39 ($M\ Age = 32\ SD = 0.40$) was assessed from various educational institutions through convenient sampling.

Procedure

Firstly, permission from the concerned departments was requested, and a copy of the synopsis was provided to them. A 28 item 7-point Likert scale with the following rating was used: 1- Strongly Disagree, 2- Disagree, 3- Slightly Disagree, 4- Neutral, 5- Slightly Agree, 6- Agree and 7- Strongly Agree. Before the administration of the scale, the participants were provided with a consent form that briefed the intent of the research. After introducing the nature and rationale of the research, participants were asked to sign the consent form. The demographic sheet administered along the 28-item scale included the age, gender, education, job role, rank, pay, years of service, working hours, working sector, office space, satisfied with job, happy with work, and how participants are into their job. Participants were asked to rate the items about themselves and were informed that they could leave the research at any time they want to. In addition, ambiguous, unclear, or inappropriate items indicated, were rephrased.

Development of The Work Engagement Scale

Results

The scale's reliability was assessed using Cronbach's Alpha reliability measure. The data were analyzed using the IBM SPSS Statistics (Version 26). Reliability analysis resulted in the scale having a Cronbach's Alpha of 0.95, indicating high internal consistency. None of the item was deleted after reliability analysis and 28-items were retained in the scale.

Table-1

Internal consistency of the Work Engagement Scale after Pilot Study (N = 50)

	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Work Engagement Scale	0.95	0.96	28
Subscale 1	0.84		5
Subscale 2	0.63		5
Subscale 3	0.68		6
Subscale 4	0.84		4
Subscale 5	0.86		8

Subscale 1; Physical Engagement, Subscale 2; Cognitive Engagement, Subscale 3; Motivation and Organizational Engagement, Subscale 4; Emotional Engagement and Subscale 5; Virtues and Self-Alignment

Table-2

Item-total Statistics of the Work Engagement Scale (N = 50)

	Mean of Scale if Item Deleted	The variance of Scale if an Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Item 1	171.76	296.75	0.36	0.95
Item 2	171.10	293.07	0.72	0.95
Item 3	171.44	300.25	0.27	0.95
Item 4	171.00	294.81	0.66	0.95
Item 5	171.00	300.44	0.66	0.95
Item 6	170.66	303.20	0.70	0.95
Item 7	170.74	306.27	0.55	0.95
Item 8	170.88	303.04	0.56	0.95
Item 9	170.76	298.39	0.71	0.95
Item 10	170.98	294.34	0.79	0.95
Item 11	171.38	288.15	0.56	0.95
Item 12	171.10	297.60	0.67	0.95
Item 13	170.80	301.18	0.72	0.95
Item 14	170.80	288.77	0.83	0.95
Item 15	170.94	290.01	0.86	0.95
Item 16	170.96	298.40	0.59	0.95

Development of The Work Engagement Scale

Item 17	171.12	286.27	0.83	0.95
Item 18	171.06	283.44	0.77	0.95
				To
				be
		continued		
Item 19	170.94	284.05	0.89	0.95
Item 20	170.98	289.97	0.87	0.95
Item 21	170.74	288.56	0.84	0.95
Item 22	170.78	290.70	0.86	0.95
Item 23	170.96	286.40	0.82	0.95
Item 24	170.94	289.69	0.75	0.95
Item 25	171.68	281.61	0.62	0.95
Item 26	170.84	298.13	0.82	0.95
Item 27	170.74	305.50	0.59	0.95
Item 28	171.10	304.77	0.27	0.95

Ethical Considerations

All ethical and moral concerns were considered while conducting the research. Informed consent was obtained, and the participants were informed that they were allowed to leave the study at any time should they wish to do. Their confidentiality was also maintained.

RESULTS

Participants

Two hundred teachers (48 men and 152 women) aged 20 to 68 (*Mean*: 35.92, *SD*: .553) years were taken from different educational institutions of Pakistan, through convenient sampling. Teachers were excluded if they were (i) Below 20 or Above 70 years of age, (ii) Having any mental illness, (iii) Having a physical disability.

Procedure

Firstly, consent was received from the head of the concerned department, and a copy of the research synopsis was provided to for the approval. The 28-item 7-point Likert scale with 1- Strongly Disagree, 2- Disagree, 3- Slightly Disagree, 4- Neutral, 5- Slightly Agree 6- Agree and 7- Strongly Agree, was administered to the teachers. Before the scale administration, a written consent form was given to them with a brief overview of the nature and intent of the research. The participants were requested to sign the printed consent form. The demographic sheet included the age, gender, education, job role, rank, pay, years of service, working hours, working sector, office space, satisfied with job, happy with work, and how participants are into their job. It was also administered alongside the 28-item scale. Participants were asked to rate the items about themselves and the information they could leave the research whenever they wished.

Results

The factorial analysis is the final phase to verify the item's structure and finalize the items after data reduction to complete the scale development process. Exploratory Factor Analysis was carried out on the culturally relevant Work Engagement Scale to confirm the structure of the items and the items themselves. In the beginning, 28 items were assessed through Exploratory Factor Analysis. As a standard criterion for factorability, the Kaiser-Meyer-Olkin

Development of The Work Engagement Scale

method of checking the sample adequacy was used, which showed a KMO value of 0.93, suggesting the completed sample was appropriate for factorial analysis. Each item shared some variance amongst them, as all the commonalities of the items were at a value higher than 0.3. Hence, factor analysis was carried out on 28-items.

To find the factors underlying the Work Engagement scale, the rotated component matrix was carried. The loaded items were classified into factors on the basis of theoretical framework. Some items categorized as factors have loadings larger than 0.4 (Hair et al., 2010). This criterion suggests that the items chosen for factor inclusion have a significant and meaningful association with the underlying latent constructs. Remaining items are classified into factors based on their theoretical alignment, which reflects the theoretical conceptions meant to be assessed by the factors. Incorporating items into a factor based on a theoretical framework is a valuable practice even when the factor loading values are low (Hair et al., 2010). Results show that there are five factors. Factor 1, Physical Engagement has five items, Factor 2, Cognitive Engagement has five items, Factor 3, Motivation and Organizational Engagement has six items, Factor 4 Emotional Engagement has four items and factor 5, Virtues and Self-Alignment has 8 items. These factors make a 28-item Work Engagement Scale with five subscales.

Step 4
Exploratory Factor Analysis

Table-3

Kaiser-Meyer-Olkin (KMO) Measure of Sample Adequacy (KMO) and Bartlett's test of Sphericity (N = 200)

	KMO	Bartlett's Test		Sig
		Chi-Square	Df	
Work Engagement Scale	0.93	3562.58	378	0.00

Table 3 shows that the KMO measure value deems the sample adequate for factorial analysis, as the KMO value is 0.93, more significant than the 0.6 cutoffs. Bartlett's test of Sphericity value is also considerable.

Table-4

Communalities for the Work Engagement Scale through Principal Component Analysis (N = 200)

	Communalities	
	Initial	Extraction
Item 1	1.00	0.60
Item 2	1.00	0.70
Item 3	1.00	0.60
Item 4	1.00	0.63

Development of The Work Engagement Scale

Item 5	1.00	0.57
Item 6	1.00	0.64
Item 7	1.00	0.45
Item 8	1.00	0.42
Item 9	1.00	0.56
Item 10	1.00	0.60
Item 11	1.00	0.60
Item 12	1.00	0.57
Item 13	1.00	0.64
Item 14	1.00	0.72
Item 15	1.00	0.52
Item 16	1.00	0.75
Item 17	1.00	0.64
Item 18	1.00	0.72
Item 19	1.00	0.78
<hr/>		
To be Continued		
Item 20	1.00	0.76
Item 21	1.00	0.75
Item 22	1.00	0.76
Item 23	1.00	0.66
Item 24	1.00	0.69
Item 25	1.00	0.67
Item 26	1.00	0.70
Item 27	1.00	0.55
Item 28	1.00	0.64

Note: Communalities > 0.3 are boldface

Extraction Method: Principal Component Analysis.

The table demonstrates that after extraction, communalities for all items are more significant than 0.3, signifying that factorial analysis can be performed on this data.

Development of The Work Engagement Scale

Table-5
Percentages of Variance and Eigen Values Explained by 28 Items of Work Engagement Scale obtained through Principal Component Analysis (N=200)

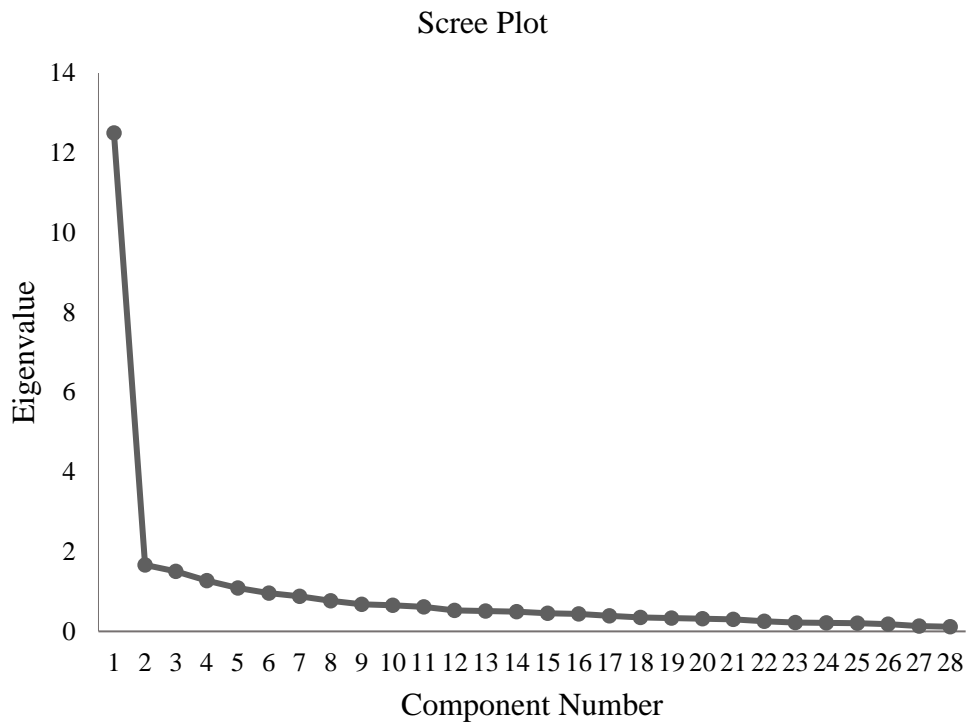
Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	
								Total	Cumulative %
1	12.49	44.62	44.62	12.49	44.62	44.62	7.00	25.03	25.03
2	1.66	5.94	50.57	1.66	5.94	50.57	3.78	13.50	38.53
3	1.50	5.37	55.94	1.50	5.37	55.94	3.03	10.82	49.36
4	1.27	4.54	60.48	1.27	4.54	60.48	2.19	7.83	57.20
5	1.08	3.87	64.35	1.08	3.87	64.35	2.00	7.15	64.35
6	0.96	3.43	67.79						
7	0.87	3.13	70.93						
8	0.76	2.73	73.67						
9	0.68	2.42	76.10						
10	0.65	2.34	78.44						
11	0.61	2.20	80.64						
12	0.52	1.86	82.51						
13	0.51	1.82	84.33						
14	0.49	1.75	86.08						
15	0.45	1.60	87.69						
16	0.43	1.55	89.24						
17	0.39	1.40	90.65						
							To be continued		
18	0.35	1.26	91.91						

Development of The Work Engagement Scale

19	0.33	1.17	93.08
20	0.31	1.12	94.21
21	0.30	1.07	95.28
22	0.25	0.90	96.18
23	0.21	0.78	96.96
24	0.21	0.76	97.73
25	0.20	0.72	98.45
26	0.18	0.64	99.10
27	0.13	0.48	99.58
28	0.11	0.41	100.00

Extraction Method: Principal Component Analysis

Figure 1
Scree plot for the Work Engagement Scale (N=200)



Development of The Work Engagement Scale

Table-6
Component Matrix for the Work Engagement Scale (N=200)

	Component				
	1	2	3	4	5
Item 1	0.33	0.47	-0.26	0.21	0.40
Item 2	0.54	0.39	-0.17	0.46	0.08
Item 3	0.69	0.19	-0.18	0.20	-0.03
Item 4	0.69	0.17	-0.03	0.05	-0.36
Item 5	0.66	-0.05	0.01	0.32	-0.17
Item 6	0.72	0.09	-0.27	-0.17	-0.13
Item 7	0.50	0.22	-0.18	-0.28	-0.19
Item 8	0.64	0.04	0.12	0.07	0.05
Item 9	0.73	-0.06	-0.16	0.07	0.07
Item 10	0.74	0.21	0.08	-0.04	0.08
Item 11	0.71	0.27	0.05	-0.11	-0.12
Item 12	0.69	0.06	0.29	0.05	0.05
Item 13	0.74	-0.30	-0.04	0.05	-0.09
Item 14	0.82	-0.08	-0.02	-0.10	-0.18
Item 15	0.69	-0.20	0.01	-0.02	0.05
Item 16	0.71	0.07	-0.37	-0.32	0.05
Item 17	0.65	-0.05	0.06	0.02	0.46
Item 18	0.77	-0.32	-0.07	-0.12	-0.06
Item 19	0.81	-0.24	-0.15	-0.21	-0.04
Item 20	0.71	-0.44	0.01	0.25	0.00
					To be
			continued		
Item 21	0.78	-0.35	0.02	0.13	0.02
Item 22	0.69	-0.16	0.18	0.13	0.45
Item 23	0.77	-0.23	-0.08	-0.11	-0.05
Item 24	0.53	0.41	-0.14	-0.45	0.17
Item 25	0.73	0.15	0.33	-0.08	0.10
Item 26	0.51	0.14	0.66	-0.06	-0.03
Item 27	0.35	0.26	-0.11	0.47	-0.36
Item 28	0.41	0.26	0.59	-0.11	-0.20

Extraction Method: Principal Component Analysis.

a. Five components extracted.

The table shows the highly loaded items on factors 1 2 3 4 & 5.

Development of The Work Engagement Scale

Table-7
Rotated Component Matrix for the Work Engagement Scale (N=200)

	Component				
	1	2	3	4	5
Item 1	-0.02	0.22	-0.02	0.23	0.71
Item 2	0.18	0.15	0.11	0.59	0.53
Item 3	0.09	0.07	0.08	0.73	0.63
Item 4	0.39	0.35	0.14	0.46	0.33
Item 5	0.34	0.43	0.29	0.49	-0.02
Item 6	0.53	0.10	0.22	0.48	0.11
Item 7	0.43	0.20	0.33	0.19	0.23
Item 8	0.43	0.62	0.09	0.24	0.12
Item 9	0.57	0.32	0.10	0.23	0.26
Item 10	0.37	0.40	0.40	0.20	0.32
Item 11	0.17	0.61	0.14	0.18	0.02
Item 12	0.29	0.50	0.40	0.28	0.17
Item 13	0.42	0.18	0.52	0.17	0.22
Item 14	0.73	0.23	0.15	0.19	0.01
Item 15	0.61	0.47	0.29	0.24	0.01
Item 16	0.63	0.25	0.21	0.08	0.13
Item 17	0.44	0.72	-0.01	0.05	0.22
Item 18	0.53	0.16	0.25	-0.08	0.52
Item 19	0.75	0.37	0.15	0.08	0.00
Item 20	0.72	0.50	0.12	0.06	0.04
To be					
continued					
Item 21	0.83	0.00	0.12	0.22	0.07
Item 22	0.81	0.14	0.19	0.18	0.11
Item 23	0.65	0.02	0.32	-0.05	0.49
Item 24	0.69	0.39	0.16	0.11	0.05
Item 25	0.06	0.72	0.24	-0.08	0.34
Item 26	0.39	0.29	0.61	0.08	0.26
Item 27	0.22	0.06	0.81	0.04	0.05
Item 28	0.05	0.15	0.77	0.13	-0.06

Note: Items loaded in each factor are bold face
 Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.

DISCUSSIONS

The purpose of this study was conducted to develop a culturally relevant Work Engagement scale. As assessing work engagement is necessary because Pakistani culture's collectivist nature, emphasizes strong interpersonal interactions, which may lead to a sense of belonging and purpose in the workplace, this sense of belonging has been shown to improve work engagement (Hussain & Ahmed, 2017). This measure defines work engagement as a dynamic

Development of The Work Engagement Scale

and interconnected phenomenon marked by profound absorption in which the physical, cognitive, and emotional immersion coexist in harmony. This state is driven by positive virtues, self-alignment to ensure congruence between personal beliefs and professional activities, motivation to drive meaning, and organizational engagement to represent the multifaceted and symbiotic relationship between individuals and organizations.

The measure was created by keeping in mind the working population of varying ages. Examining and evaluating work engagement is becoming increasingly important, and it may be utilised effectively in organisations since research shows that engaged individuals are more likely to display greater levels of job performance (Schaufeli & Bakker, 2004). The scale was constructed in Urdu language so that potential linguistic barriers can be eliminated.

The final work engagement Scale has 28 items, including five subscales. Subscale one (Physical Engagement) has five items, subscale two (Cognitive Engagement) has five items, subscale three (Motivation and Organisational Engagement) has six items, subscale four (Emotional Engagement) has four items, and subscale five (Virtues and Self-Alignment) has eight items

Item 4, 6, 12, 13 and 15 are in Factor 1. Factor 1 assess physical engagement in work. Physical activity at work has a direct impact on work performance as Richter, Hämäläinen, & Pehkonen (2018) researched that employee's performance can change when they experience fatigue, or physical strain during a physically demanding task

Factor 2 comprises of item 1, 5, 7, 10 and 11. Factor 2 assess cognitive engagement in work. Schaufeli and Bakker (2004) found that an individual's productivity and efficiency at work is significantly related to being cognitively engaged in work. Harter, Schmidt, and Hayes (2002) added that potential pressures and hurdles which affect cognitive engagement can be targeted through regular evaluations of work engagement.

Item 3, 8, 14, 20, 25 and 28 constitute Factor 3. Factor 3 assess motivation and organizational engagement. Kahn's seminal work on work engagement focuses mostly on the organizational setting. Deci and Ryan (1985) identified intrinsic motivation as a cornerstone, referring to the internal drive obtained from real interest and personal gratification received from the activities at hand. Individuals become intrinsically driven when they discover inherent delight in their job, experience autonomy, and want to master skills, promoting a deep and continuous engagement with their professional obligations.

Factor 4 contains item 16, 17, 19 and 24. Factor 4 assesses emotional engagement in work. The alignment of one's work with his principles and values is important as scholars (Smith, 2010; & Johnson, 2015) argue that honesty and transparency has immense value in organizational communication. Brown and Trevio (2006) have emphasized that in building a positive employee customer relationship the role empathy is important. The virtues of workplace are characterized on the basis of effort put together with the behavior which is cooperative and respectful (Trivio et al., (2003).

Item 2, 9, 18, 21, 22, 23, 26 and 27 are in Factor 5. This factor assesses virtues and self-alignment Rosso et al. (2010) highlighted that healthy self-orientation can be indicated by the meaning and satisfaction in work. Wrzesniewski et al. (1997) further elaborated as expressing commitment and enthusiasm to tasks that correlate to individual's personal goals. According to Briscoe et al. (2006) to achieve self-alignment with reference to work engagement a strong sense of identification and congruence in one's professional position

Development of The Work Engagement Scale

would be helpful. Work engagement and virtues are positively related as Lavy and Ovadia (2017) observed that virtues such as appreciation and optimism were positively related to employees' work engagement.

CONTRIBUTIONS

The development of work engagement assessing scale has important practical and research implications in Pakistan as it has the potential to result in improved insights, policies, and practices for improving employee's work engagement, well-being, and organizational success in Pakistan. To construct the scale in native Urdu language is important to adjust to linguistic sensitivity and to remove potential barriers. Constructing the scale on standards relative to Pakistan workplaces ensure its wider use and enables organizations to compare work performance on regional level. The scale is culturally reliable, appropriate simple to use and administer, and has wider applications to working sector. It has the capacity to offer insight to intricated work engagement phenomenon, support management in organizational development and it can also help in decision making in country's workplace.

A culturally tailored tool can provide insights into the factors that drive work engagement and enthusiasm (Ahmed, Akbar, & Rauf, 2020). The work engagement scale would be beneficial to not only organizations but also to the HR and the individual himself. Ali et al. (2020) pointed that the development as well as application of a work engagement scale that can provide accurate results would enable targeted actions and resources allocation in HR.

Ahmed, Akbar, and Rauf (2020) further added that culturally relevant tool would enable organizations to acquire strategies for increasing job satisfaction and efficiency.

LIMITATIONS & RECOMMENDATIONS

The limitations of this study, as well as potential future possibilities, must be recognized. The data only signifies the experience of particular working class i.e., teachers. Hence, the applicability of study's conclusions to other classes of population is limited. Instead of generalizing inferences about the work engagement of teachers, additional groups should be investigated in future. Moreover, the other potential limitation is the data was obtained from more private educational institutions as compared to public institution i.e., the data is not equally collected from public and private educational institutions of Pakistan. The data has 48 male and 152 female participants i.e., the gender of working population was also not equal. Another limitation is the limited time for testing the reliability and validity of the scale. For validating the scale, the sample size should be increased and should be obtained from working population of different organizations from various sources. Otherwise, the interpretation of results can be affected. Also, the Confirmatory Factor Analysis should also be carried out and the discriminant validity of the scale should be found.

REFERENCES

1. Ali, A. J. (2015). The role of religion and spirituality in the workplace. In *Handbook of Faith and spirituality in the workplace* (pp. 315–336). Springer.
2. Ali, A., Rehman, K. U., Yousaf, S., & Waseem, M. (2020). Impact of organizational culture on employee engagement: Evidence from Pakistan. *South Asian Journal of Human Resources Management*, 7(2), 220–241.
3. Ali, A.A., Mahmood, K., Javaid, Z.K., & Athar, M. (2024). Conflict Resolution, Psychological Well-

Development of The Work Engagement Scale

- Being and Marital Satisfaction among Spouses of Working People. *Pakistan Journal of Law, Analysis and Wisdom*, 3(2), 183–191.
4. American Psychological Association. (2020). *Publication manual of the American Psychological Association: The official guide to APA style* (7th ed). American Psychological Association. American Psychological Association.
 5. Bakker, A. B., & Albrecht, S. L. (2018). Work engagement: Current trends. *Career Development International*, 23(1), 4–11. <https://doi.org/10.1108/CDI-11-2017-0207>
 6. Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), 209–223. <https://doi.org/10.1108/13620430810870476>
 7. Bakker, A. B., & Leiter, M. P. (2010). Where to go from here: Integration and future research on work engagement. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 265–268). Psychology Press.
 8. Bakker, A. B., & Schaufeli, W. B. (2008). Positive organizational behaviour: Engaged employees in flourishing organizations. *Journal of Organizational Behaviour*, 29(2), 147–154. <https://doi.org/10.1002/job.515>
 9. Bakker, A. B., Albrecht, S. L., & Leiter, M. P. (2011). Key questions regarding work engagement. *European Journal of Work and Organizational Psychology*, 20(1), 4–28. <https://doi.org/10.1080/1359432X.2010.485352>
 10. Briscoe, J. P., Hall, D. T., & Frautschy DeMuth, R. L. (2006). Protean and boundaryless careers: An empirical exploration. *Journal of Vocational Behavior*, 69(1), 30–47. <https://doi.org/10.1016/j.jvb.2005.09.003>
 11. Brown, M. E., & Treviño, L. K. (2006). Ethical leadership: A review and future directions. *Leadership Quarterly*, 17(6), 595–616. <https://doi.org/10.1016/j.leaqua.2006.10.004>
 12. Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behaviour*. Plenum press.
 13. Den Hartog, D. N., & Belschak, F. D. (2012). Work engagement and Machiavellianism in the ethical leadership process. *Journal of Business Ethics*, 107(1), 35–47. <https://doi.org/10.1007/s10551-012-1296-4>
 14. Diamond, M. A., & Allcorn, S. (1985). *The open systems handbook: A guide to public renaissance and transformation*. Abt Books.
 15. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: A global perspective* (7th ed). Pearson.
 16. Hakanen, J. J., Schaufeli, W. B., & Ahola, K. (2008). The job demands-resources model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work and Stress*, 22(3), 224–241. <https://doi.org/10.1080/02678370802379432>
 17. Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87(2), 268–279. <https://doi.org/10.1037/0021-9010.87.2.268>
 18. Houle, S. A., Rich, B. L., Comeau, C. A., Blais, A. R., & Morin, A. J. (2022). The Job engagement scale: Development and validation of a short form in English and French. *Journal of Business and Psychology*, 1–29.
 19. Hussain, I., & Ahmed, S. (2017). Impact of organizational culture on employees' job performance: A study of pharmaceutical companies in Karachi, Pakistan. *Journal of Business and Social Sciences*, 1(1), 1–18.
 20. IBM, Corp. (released 2019). *IBM SPSS Statistics for windows* version 26.0. IBM, Corp.
 21. Javaid, Z. K., Khan, K., & Anjum, A. R. (2023a). Antecedents of Employee Wellbeing: Review of Organizations in Pakistan. *ESIC Market*, 54(3), e313-e313.
 22. Javaid, Z. K., Mahmood, K., & Ali, A. A. (2023b). Mediating Role of Mindfulness between Quality of Life and Workplace Stress among Working Women. *Journal of Workplace Behavior*, 4(1), 68-80.

Development of The Work Engagement Scale

23. Javaid, Z. K., Andleeb, N., & Rana, S. (2023c). Psychological Perspective on Advanced Learners' Foreign Language-related Emotions across the Four Skills. *Voyage Journal of Educational Studies*, 3 (2), 191-207. DOI: <https://doi.org/10.58622/vjes.v3i2.57>
24. Johnson, A. B., & Johnson, C. D. (2019). Gender Differences in Conflict Resolution, Psychological Well-Being, and Marital Satisfaction Among Spouses of Working Individuals: A Comparative Analysis. *Journal of Marriage and Family Therapy*, 45(3), 321-336.
25. Johnson, C. E. (2015). *Meeting the ethical challenges of leadership: Casting light or shadow*. Sage Publications.
26. Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692-724.
27. Khan, K., & Javaid, Z. K. (2023). Analyzing Employee Performance through Workforce Diversity Management: Role of Workforce Diversity Characteristics. *Foundation University Journal of Business & Economics*, 8(2), 85-101.
28. Lavy, S., & Littman-Ovadia, H. (2017). My better self: Using strengths at work and work productivity, organizational citizenship behavior, and satisfaction. *Journal of Career Development*, 44(2), 95-109. <https://doi.org/10.1177/0894845316634056>
29. May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology*, 77(1), 11-37. <https://doi.org/10.1348/096317904322915892>
30. Ramzan, M., Javaid, Z. K., & Ali, A. A. (2023a). Perception of Students about Collaborative Strategies Employed by Teachers for Enhancing English Vocabulary and Learning Motivation. *Pakistan Journal of Law, Analysis and Wisdom*, 2(02), 146-158.
31. Ramzan, M., Javaid, Z. K., & Khan, M. A. (2023b). Psychological Discursiveness in Language Use of Imran Khan's Speech on National Issues. *Global Language Review*, VIII (II), 214-225. [https://doi.org/10.31703/glr.2023\(VIII-II\).19](https://doi.org/10.31703/glr.2023(VIII-II).19)
32. Rauf, A., Akbar, A., & Ahmed, U. (2020). Impact of transformational leadership on employee engagement: The mediating role of organizational commitment. *Pakistan Journal of Commerce and Social Sciences*, 14(1), 119-139.
33. Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53(3), 617-635. <https://doi.org/10.5465/amj.2010.51468988>
34. Richter, J. M., Hämäläinen, P., & Pehkonen, I. (2018). Physical work demands and psychosocial working conditions as predictors of musculoskeletal pain: A cohort study comparing office workers with and without physically demanding work. *BMC Musculoskeletal Disorders*, 19(1), 119.
35. Rosso, B. D., Dekas, K. H., & Wrzesniewski, A. (2010). On the meaning of work: A theoretical integration and review. *Research in Organizational Behavior*, 30, 91-127. <https://doi.org/10.1016/j.riob.2010.09.001>
36. Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7), 600-619. <https://doi.org/10.1108/02683940610690169>
37. Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293-315. <https://doi.org/10.1002/job.248>