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**Administrative Sciences** 

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Suggested Citation: Di Giampaolo, Luca et al. (2025): Exploring work engagement and cynicism in industry: A preliminary investigation in a central Italian engineering company, Administrative Sciences, ISSN 2076-3387, MDPI, Basel, Vol. 15, Iss. 5, pp. 1-11, https://doi.org/10.3390/admsci15050166

This Version is available at: https://hdl.handle.net/10419/321310

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Article

# Exploring Work Engagement and Cynicism in Industry: A Preliminary Investigation in a Central Italian Engineering Company

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Abstract: Background: Work engagement is defined as a positive and fulfilling workrelated state of mind, characterized by vigor, dedication, and absorption. High levels of engagement are associated with improved organizational functioning and a stronger sense of belonging among employees. Objective: This study, conducted in collaboration with a large metalworking company in central Italy, aimed to explore the relationship between work engagement and organizational cynicism among Maintenance Team Leaders. Specifically, the goals were to assess the levels of engagement and emotional involvement and to examine how these dimensions vary according to socio-demographic factors such as gender, age, educational background, and seniority. The ultimate aim was to support occupational physicians and workplace safety officers in identifying the best practices for preventing psychosocial risks, work-related stress, and burnout. Methods: A total of 99 Maintenance Leaders participated in the study. The Italian version of the Utrecht Work Engagement Scale (UWES) was used to assess the three core dimensions of engagement: vigor, dedication, and absorption. Additionally, the Cynicism scale development by Naus, Van Iterson, and Roe was administered. Results: While the sample size limits generalizability, the findings offer preliminary insight into engagement levels within this population. The results emphasize the need to expand the sample and to conduct comparative analyses across different teams within the company better understand engagement patterns and inform targeted interventions. Conclusions: Although work engagement has been extensively studied in the healthcare sector, especially during the COVID-19 pandemic, limited research has addressed its role in the industrial context, and even less within the metalworking sector. This study contributes to filling that gap by providing an initial profile of engagement among maintenance leaders and by highlighting the interplay between engagement, cynicism, and individual characteristics in a high-demand industrial environment.

**Keywords:** work engagement; organizational cynicism; psychosocial risk; work-related stress; occupational health; industrial sector



Received: 30 September 2024 Revised: 18 April 2025 Accepted: 23 April 2025 Published: 29 April 2025

Citation: Di Giampaolo, L., Galanti, T., Cortini, M., De Sio, S., Giurgola, C., Marino, F., Astolfi, P., Martelli, R., Ziccardi, D., Borrelli, P., Forcella, L., Maiolo, M. E., & Coppeta, L. (2025). Exploring Work Engagement and Cynicism in Industry: A Preliminary Investigation in a Central Italian Engineering Company. *Administrative Sciences*, 15(5), 166. https://doi.org/10.3390/admsci15050166

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## 1. Introduction

Work engagement is defined as a positive, fulfilling, work-related state of mind characterized by vigor, dedication and absorption (Pisanti et al., 2008). Vigor refers to the energy, both in the physical and mental sense, with which a worker is dedicated to the performance of their tasks, resisting and knowing how to react to stressful or difficult situations.

- Dedication refers to the tendency to be highly involved in one's work, to experience it
  as a challenge and associate it with a meaningful experience.
- Absorption is characterized by full concentration and immersion in work activities.
   It represents, therefore, a psychological condition that leads to a state of complete well-being, such that it presents difficulty in interrupting it (Schaufeli et al., 2002).

The construct encompasses emotional (Luthans & Peterson, 2002), cognitive (Maslach et al., 2001), and behavioral (Harter et al., 2002) dimensions, reflecting the personal investment of energy and identity in the job role (Crawford et al., 2010). Engaged employees are not only more productive but also show greater job satisfaction, organizational commitment, and psychological well-being. In the face of growing organizational complexity, global competition, and rapid technological change, engagement has emerged as a key driver of both individual and organizational performance. At the same time, organizational trust has been identified as a core component for fostering engagement, especially in a high-risk, high-change environment (Maiolo & Zuffo, 2018; Schaufeli, 2018).

However, modern workplaces are also experiencing a rise in negative psychosocial phenomena such as organizational cynicism, a critical attitude toward the organization characterized by distrust, frustration, and emotional detachment (Stocchi et al., 2010; Rousseau, 1989; Fantinelli et al., 2023). This attitude can lead to reduced performance, absenteeism (Reichers, 1985), and increased turnover intentions (Meyer & Allen, 1997), ultimately harming both employee well-being and corporate performance. Notably, work engagement and organizational cynicism are considered opposing constructs, with engagement acting as a buffer against the onset of cynicism and burnout (Di Giampaolo et al., 2024; Schaufeli & Bakker, 2004; Arslan & Roudaki, 2019). While engaged workers may still experience fatigue, they tend to perceive it as manageable and tied to a sense of purpose (Arslan, 2018; Schaufeli et al., 2006).

Much of the existing research on engagement was focused on healthcare professionals, especially during the COVID-19 pandemic (Del Carmen Giménez et al., 2020; Di Giampaolo et al., 2021; Mangifesta et al., 2021; Galanti et al., 2024), where studies have shown high levels of engagement despite extreme working conditions. In these contexts, engagement has been linked to resilience, a strong sense of professional identity, and perceived social impact.

However, less is known about engagement and cynicism in other high-demand sectors, such as mechanical engineering, a key pillar of the Italian economy. This sector, encompassing industries from machinery production to metallurgy, has faced increasing challenges such as supply chain instability, ecological transitions, and workforce transformations (Guidetti et al., 2022). The mental and emotional engagement of workers in this context remains underexplored despite its potential impact on productivity, innovation, and organizational climate.

The mechanical engineering sector is crucial for the Italian economy, representing a significant portion of added value and employment. It includes a wide range of activities, from the production of machinery and electrical equipment to metallurgy and the production of transport vehicles. The sector has faced increasing crises and threats, such as geopolitical conflicts, high interest rates, and supply chain issues. Production and exports have slowed down, with a decrease in mechanical engineering production in recent years. Ecological and technological transitions are a priority, with investments in strategic sectors and the aggregation of small and medium-sized enterprises in the supply chains. In this

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context, the construction of engagement becomes increasingly crucial: engaged employees are more productive and tend to exceed expectations, improving the quality of products and services. A high level of engagement reduces turnover, decreasing the costs associated with replacing and training new hires. A positive work environment fosters collaboration and innovation, essential for tackling the sector's challenges. Moreover, engaged employees are more likely to contribute ideas and innovative solutions. Engagement increases job satisfaction and employee well-being, reducing absenteeism and improving the corporate climate. On the other hand, organizational cynicism is negatively correlated with work performance, leading to a reduction in productivity and employee effectiveness (Naus et al., 2007). Cynical employees tend to be less motivated and less committed to their work. Cynicism can create a toxic work environment, characterized by a lack of trust and collaboration among colleagues. This negative climate can slow down decision-making and operational processes, negatively affecting the company's overall performance. Cynicism can increase employees' intention to leave the company, leading to high turnover and additional costs for personnel replacement. Maintaining high engagement levels and reducing cynicism is therefore essential for improving work performance and the competitiveness of the mechanical engineering sector in Italy.

Therefore, the present study aims to explore the levels of work engagement and organizational cynicism among Maintenance Team Leaders working in a large Italian mechanical engineering company and to examine how these constructs relate to key sociodemographic factors such as age, gender, education level, and tenure. By identifying the profiles most at risk of disengagement or cynicism, our goal is to support occupational physicians and workplace health and safety professionals in developing targeted interventions to promote engagement, prevent burnout, and foster psychosocial well-being. This focus is particularly relevant in environments where teamwork, leadership, and resource availability play a critical role in shaping the work experience (Schaufeli, 2021).

#### 2. Materials and Methods

## 2.1. Study Design and Procedure

This cross-sectional study involved a sample of 99 Maintenance Leaders employed on three rotating shifts at the engineering company located in the Abruzzo region. Participation was voluntary, and data were collected anonymously to protect participants' privacy.

#### 2.2. Procedure

The total sample was divided into five groups (four groups of 20 participants and one of 19). Each participant received a sealed envelope containing the questionnaires after a brief oral explanation regarding how to fill them out and reassurances of confidentiality. Participants completed the survey during working hours, with approximately 10 min allocated for the task. Two occupational physicians were present during data collection to provide clarification and support if needed.

#### 2.3. Materials

- 1. Participants completed three questionnaires after signing an informed consent form: Socio-anagraphic questionnaire, composed of 9 questions on the following variables: gender, age, educational level, marital status, children (number and age), years of employment in the company, tenure in the current job, previous roles within the company, and overall years of work experience.
- 2. Utrecht Work Engagement Scale (UWES—Italian version). This self-report instrument measures three components of work engagement: vigor (6 items; Cronbach's Alpha = 0.78), dedication (5 items; Cronbach's Alpha = 0.85), and absorption (6 items;

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- Cronbach's Alpha = 0.63), for a total of 17 items (Pisanti et al., 2008). Each item is rated on a 6-point scale (1 = never, 6 = always). Subscale scores are calculated by averaging item responses. Higher score indicates higher levels of engagement.
- 3. Organizational Cynicism Scale (Naus, Van Iterson and Roe). Based on the Exit–Voice–Loyalty–Neglect model, this scale includes 7 items (Cronbach's Alpha = 0.77), based on the Exit–Voice–Loyalty–Neglect model, measuring critical and negative feelings toward the organization. Example items include the following points: "you happen to talk to your colleagues about your bosses' incompetence" and "you happen to withhold useful suggestions to improve things, because you think that in no way will things change". Responses are rated on a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree). The even-numbered scale was chosen to avoid a neutral midpoint, this minimizing central tendency bias.

## 2.4. Data Analysis

Descriptive analysis was carried out using mean and standard deviation,  $\pm$  standard deviation, or median and interquartile range (IQR) for quantitative variables. In contrast, frequencies and percentages were used to describe the qualitative variables. Normality distribution was tested by the Shapiro–Wilk test. The association between categorical data was investigated by Pearson  $\chi^2$  or Fisher's exact test and Student's t-test for paired data for continuous data. A statistical significance was set at the level of  $\alpha \leq 0.05$ . All analyses were performed using Stata software v18 (StataCorp., College Station, TX, USA).

## 3. Results

## 3.1. Sample Characteristics

The sample examined consists of 99 participants (91 males and 8 females), of whom 69.7% are over 41 years old, 81.9% have a high school diploma, 82.8% are married or cohabiting, and 75% have children. In this sample, the average seniority in terms of years spent in the company is  $19 \pm 9.62$  years, and in the specific role of Maintenance Leader is  $12 \pm 8.7$  years. Of these, 51.6 percent are Blue Collar (Table 1).

	Total $N = 99$
Gender, n (%)	
Female	8 (8.1%)
Male	91 (91.9%)
Age, n (%)	
18–30	2 (2.0%)
31–40	28 (28.3%)
41–50	47 (47.5%)
51-older	22 (22.2%)
Qualification, n (%)	
University Degree	14 (14.9%)
Master's Degree	1 (1.1%)
High School Diploma	77 (81.9%)
Middle School Diploma	2 (2.1%)

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Table 1. Cont.

	Total $N = 99$
Marital Status, n (%)	
Married or cohabitant	82 (82.8%)
Separated	8 (8.1%)
Single	9 (9.1%)
Children, n (%)	
No	25 (25.3%)
Yes (≤3 years old)	9 (9.1%)
Yes (6–11 years old)	25 (25.3%)
Yes (12–17 years old)	19 (19.2%)
Yes (≥18 years old)	21 (21.2%)
How long have you been working in this company? (months)	$228.5 \pm 115.5$
How long have you been holding your role in this company? (months)	$144.2 \pm 104.5$
Have you previously held other roles in this company? If so, which one/ones? $n$ (%)	
Blue collar	51 (51.6%)
White collar	35 (35.3%)
Other	13 (13.1%)
How long have you been working, in general? (months)	$281.9 \pm 113.2$

The data are expressed with n (%) and mean  $\pm$  standard deviation.

## 3.2. Results of the Survey

Based on the normative values of the UWES reference scale (Table 2), the mean values reported by the sample of Maintenance Leaders in the three dimensions of engagement are medium to high.

Table 2. Normative values UWES.

	Vigor	Dedication	Absorption	<b>UWES Score</b>
Very Low	2.17	1.60	1.60	1.93
Low	2.18–3.20	1.61-3.00	1.61–2.75	1.94–3.06
Average	3.21-4.80	3.01-4.90	2.76-4.40	3.07-4.66
———High	4.81–5.60	4.91–5.79	4.41-5.35	4.67–5.53
Very High	5.61	5.80	5.36	5.64

The analysis of standard deviations, related to the three examined characteristics, did not reveal any significant divergence. Specifically, "vigor" and "dedication" showed an identical standard deviation ( $\pm 1.00$ ), while "absorption" showed a less uniform response from the surveyed population ( $\pm 1.23$ ) (Table 3).

According to the Dedication Scale item "I am enthusiastic about my work", only in the 41–50 age group are 17% of workers not enthusiastic, while in all other age groups, 100% report being enthusiastic (p = 0.020) (Table 4).

According to the Engagement Scale item "It is difficult to detach myself from my job", 86.7% of college graduates find it difficult to detach themselves from their jobs, while it is difficult for only 59.5% of high school graduates (p = 0.045) (Table 5).

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Table 3 Mean	and Standard	Deviation (	$(\pm SD)$ in	UWES subscales.

UWES Subscales	Mean $\pm$ SD
Vigor	$4.93 \pm 1.00$
Dedication	$5.09 \pm 1.00$
Involvement	$4.81 \pm 1.23$

Table 4. Dedication scale: comparison by age group.

	Age Group				41_
Dedication Scale	18-30 ( $n = 2$ )	31-40 ( $n = 28$ )	41-50 ( $n = 47$ )	51–Older (n = 22)	<i>p</i> - Value
I am enthusiastic about my work, n (%)					
Never—Sometimes	0 (0.0%)	0 (0.0%)	8 (17.0%)	0 (0.0%)	0.020
Often—Always	2 (100.0%)	28 (100.0%)	39 (83.0%)	22 (100.0%)	

The data are expressed with n (%).

**Table 5.** Absorption scale: comparison by qualification.

	Qu		
Absorption Scale	University Degree/ Master's Degree (n = 15)	Middle School Diploma/ High School Diploma (n = 79)	<i>p</i> -Value
It is difficult to detach myself from my job, n (%)			
Never—Sometimes	2 (13.3%)	32 (40.5%)	0.045
Often—Always	13 (86.7%)	47 (59.5%)	

The data are expressed with n (%).

According to the Dedication Scale item "For me, my job is challenging", 100% of workers with children find their jobs challenging, while the percentage is slightly lower for those without children (89.2%) (p = 0.086) (Table 6).

Table 6. Dedication scale, comparison by children (yes/no).

	Chil		
Dedication Scale	Yes (n = 74)	No (n = 25)	<i>p</i> -Value
For me, my job is challenging, $n$ (%)			
Never—Sometimes	8 (10.8%)	0 (0.0%)	0.086
Often—Always	66 (89.2%)	25 (100.0%)	

The data are expressed with n (%).

According to the Vigor Scale item "I am always persevering in my work even when things are not going well", those who have been in their roles the longest are more persevering (p = 0.048) (Table 7).

According to the Engagement Scale item "When I work, I forget about everything else", those who have been working for less time, both in terms of total years and within the company, are able to focus more and forget about everything else while working (Table 8).

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**Table 7.** Vigor Scale, comparison by seniority of role.

Vigor Scale	Item: I Am Always Persevering in My Work, Even When Things Are Not Going Well		u Valua
	Never—Sometimes $(n = 5)$	Often—Always $(n = 94)$	<i>p</i> -Value
How long have you been working in this company? (months)	$190.4 \pm 161.3$	$230.5 \pm 113.4$	0.452
How long have you been holding this role in this company? (months)	$54.6 \pm 67.0$	$149.0 \pm 104.2$	0.048
How long have you been working, in general? (months)	$230.4 \pm 140.6$	$284.7 \pm 111.8$	0.298

The data are expressed with mean  $\pm$  standard deviation.

Table 8. Absorption Scale, comparison by working seniority.

Absorption Scale	Item: When I Work Everythin	. 37-1	
	Never—Sometimes $(n = 21)$	Often—Always $(n = 78)$	- <i>p-</i> Value
How long have you been working in this company? (months)	$290.3 \pm 92.7$	$211.8 \pm 115.9$	0.005
How long have you been holding this role in this company? (months)	$167.1 \pm 97.7$	$137.9 \pm 106.0$	0.257
How long have you been working, in general? (months)	$328.0 \pm 104.0$	$269.5 \pm 113.0$	0.035

The data are expressed with mean  $\pm$  standard deviation.

The evaluation of the Cynicism Scale, on the other hand, showed that

- Workers with children express a higher level of cynicism, compared to the population without children (p = 0.066) (Table 9);
- As age increases, it is possible to see an increase in cynicism and the feeling of not being taken seriously by the company;
- Almost all workers share useful suggestions for the company, thinking that they will be taken into consideration.

**Table 9.** Cynicism Scale, comparison by children (yes/no).

	Chil		
Cynicism Scale	Yes $(n = 74)$	No (n = 25)	<i>p</i> -Value
Amount of confidence you express in the sincerity of your company, <i>n</i> (%)			
Low	8 (10.8%)	0 (0.0%)	0.066
Medium	33 (44.6%)	8 (32.0%)	
High	33 (44.6%)	17 (68.0%)	

Data are expressed with n (%).

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# 4. Discussion

Work Engagement has emerged as a crucial factor in organizational success, directly influencing both employees' well-being and operational performance. Low levels of work engagement, particularly in hazardous work environments, may lead to a decline in enthusiasm and concentration, increasing the risk of safety violations and undermining complex task management (Mori et al., 2024; Antonucci et al., 2010). Workers with lower engagement may also lack the energy required to adapt to changing conditions, further reducing their ability to support colleagues and contribute to company goals (Zhang et al., 2021). According to the data from this study, educational level and work seniority appear to influence engagement levels. College graduates, for example, show a higher tendency (86.7%) to find it difficult to detach from their work compared to high school graduate (59.5%) (p = 0.045). Additionally, the data suggest that younger workers, particularly those with less time spent in the company, are more capable of concentrating and losing themselves in their work. In contrast, workers with greater seniority demonstrate higher perseverance (p = 0.048), likely due to their extensive experience in handling workplace challenges.

Cynicism was also identified as a key factor in this analysis, with workers who have children displaying higher levels of cynicism (p = 0.066). Age was also correlated with cynicism, suggesting that older employees may feel less valued by the company. This aligns with the literature that shows a negative relationship between organizational cynicism and work performance, mediated by employee engagement and work alienation (Arslan, 2018; Saeed, 2018; Filiz et al., 2024). Moreover, research in the healthcare sector has indicated that organizational cynicism can exacerbate burnout and reduce overall job performance (Mohammad et al., 2022; Salama et al., 2025; D'Alterio et al., 2019). Despite these concerns, nearly all participants expressed the belief that their suggestions would be taken seriously by management, indicating a foundation of trust that can be built upon to enhance engagement further.

Recent studies have emphasized the multifaceted impact of organizational cynicism, revealing its cognitive, affective, and behavioral dimensions as well as their significant detrimental effects on performance (Arslan, 2018; Mohammad et al., 2022). For instance, work-life balance practices have been shown to reduce organizational cynicism by enhancing person-job fit, with positive outcomes for both engagement and productivity (Kakar et al., 2022). Additionally, emotional intelligence and gratitude can serve as protective factors, especially in the face of workplace ostracism or perceived overqualification, both of which are known to foster cynicism, particularly among new hires (Liu et al., 2024; Sahoo et al., 2023). Given the variation in engagement levels across different demographic groups, it is clear that a "on-size-fits-all" approach is inadequate. The company would benefit from tailoring its strategies to different segments of the workforce. For example, the younger, more engaged workers could serve as ambassadors of positive work culture, influencing older colleagues who may be more disengaged. Likewise, enhancing the work-life balance, fostering a participatory management style, and improving communication between employees and leadership could mitigate some of the cynicism and disconnection observed, particularly in the 41–50 age group. Furthermore, the study highlights the need to offer targeted training and development opportunities, especially for less educated workers who tend to report lower engagement. Redesigning job roles to align with personal interests and providing tangible incentives for the older workforce, such as flexibility and sustainable work models for the younger generations, could enhance trust and engagement (Huang et al., 2016; Cabrera et al., 2003; Forcella et al., 2010).

Therefore, from this detailed analysis, there is a need to put measures in place to increase workers' sense of belonging and trust in the company by implementing workers' passive and active involvement in work, improving intentional communication and train-

ing. A way of working characterized by greater strength, passion, and daily satisfaction leads to greater productivity and efficiency. It is known that work stress has effects on the immune system. A work organization that promotes engagement improves well-being, reduces the risk of stress, and has positive effects on the immune system (Boscolo et al., 2011, 2012; Forcella et al., 2012; Reale et al., 2020). In addition, the creation of a positive work environment in which an atmosphere of calm cooperation, support, and trust is established is crucial, not only between peer work figures, but especially in work relationships where there is subalternity, such as between employees and their managers. Employees who feel involved and placed at the center of company choices are more loyal to the company they work for, which reduces turnover and costs associated with finding and training new employees.

#### *Limitations of the Study*

Based on the results obtained, considering the objective limitation given by the narrowness of the sample, it would be useful to adopt strategies to increase involvement among workers in the 41–50 age group, taking advantage, for example, of the driving effect of the younger population, which, according to the available data, proved to be more "engaged". To this end, the business organization, in implementing change policies, needs to understand the psychological characteristics of its workers, differentiating measures that might be effective on older workers from strategies to be adopted against the younger population. The results of the study also show that greater work seniority correlates with a tendency toward greater perseverance in coping with difficulties in the workplace as a result of longer experience in the field for workers with more years of service.

#### 5. Conclusions

The preliminary findings suggest that greater seniority and lower education levels may be linked to reduced engagement, while younger, more educated workers display higher levels of focus and involvement. These dynamics should be explored in more depth with a larger sample, expanding the investigation across teams within the metalworking company to develop tailored interventions aimed at improving engagement, problem-solving, and overall productivity through experiential training.

**Author Contributions:** Conceptualization: L.D.G.; methodology: L.F., M.E.M.; formal analysis: P.B.; investigation: C.G. and F.M.; data curation: P.B., T.G.; writing—original draft preparation: R.M. and D.Z.; writing—review and editing: P.A., T.G. and M.C.; supervision: S.D.S., L.C. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

**Institutional Review Board Statement:** The study was conducted in accordance with the Declaration of Helsinki and approved by the IRB-CRRM of the University "G. d'Annunzio" of Chieti-Pescara (protocol number: CRRM\_2023\_12\_07\_04; date of approval: 12 December 2023).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** The data presented in this study are available on request from the corresponding author due to privacy.

Conflicts of Interest: The authors declare no conflicts of interest.

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