

# Exploratory Study of Factors Influencing Employee Engagement in Medium-Scale Manufacturing Companies in Semarang Regency

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**Abstract:** This research aims to explore factors influencing employee engagement in medium-scale manufacturing companies in Semarang Regency. Using a qualitative approach with in-depth interviews and focus group discussions, the study involved 67 employees from five manufacturing companies. The results identified six main factors influencing employee engagement: leadership, work environment, career development, compensation, organizational culture, and communication. Transformational leadership emerged as the dominant factor, followed by physical and psychosocial work environment. The research found variations in factors based on demographic characteristics, where younger employees were more influenced by career development, while senior employees were more responsive to leadership and organizational culture. The study produced a conceptual model of employee engagement that considers interactions between factors and Indonesia's specific socio-cultural context. Practical implications include the importance of prioritizing leadership development and creating a conducive work environment to enhance employee engagement in companies with limited resources. This model provides a framework for developing effective and personalized HR management strategies in medium-scale manufacturing companies in Indonesia.

**Keywords:** employee engagement, manufacturing companies, transformational leadership, work environment, career development

## 1. INTRODUCTION

In an era of increasingly competitive business environments, employee engagement has emerged as a critical factor in sustaining productivity and organizational continuity. Employee engagement refers to a psychological state in which employees feel emotionally and intellectually connected to their work and organization, thereby motivating them to perform at their best [1]. The manufacturing sector, as one of the pillars of Indonesia's economy, faces unique challenges in fostering and maintaining employee engagement amidst dynamic production demands, global competition pressures, and ongoing technological transformations [2].

Semarang Regency, recognized as a key industrial hub in Central Java, hosts at least 124 medium-scale manufacturing companies employing more than 27,500 workers [3]. These companies operate across various subsectors including textiles, food and beverages, automotive components, and furniture. Despite its significant contribution to the regional economy—evidenced by export values reaching IDR 8.7 trillion in 2023—the manufacturing sector in Semarang Regency is facing critical challenges regarding employee engagement. A survey conducted by the [4] revealed that 47% of manufacturing firms reported employee turnover rates exceeding 15% per annum, which is considerably higher than the ideal average of 5-10%. This indicates fundamental issues concerning employee engagement that warrant in-depth investigation.

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Various approaches have been employed in prior studies to explore the factors influencing employee engagement. Quantitative approaches using structured surveys, such as those conducted by Prasetyo et al. [5], have demonstrated the ability to identify correlations and statistical impacts among variables. Their research involving 345 employees in Central Java's manufacturing industry found that transformational leadership ( $\beta = 0.42$ ,  $p < 0.01$ ) and organizational climate ( $\beta = 0.38$ ,  $p < 0.01$ ) were strong predictors of employee engagement. The main strength of this approach lies in its capacity to generate generalizable and statistically measurable findings. However, [6] criticized quantitative methods for their limitations in capturing the subjective experiences and deep meanings from employees' perspectives.

Qualitative approaches, particularly case studies such as that conducted by [7], provide rich contextual understandings of employee engagement dynamics. Through in-depth interviews, observations, and document analyses in three manufacturing firms, their study revealed that employee engagement is shaped through a complex process involving the interaction of organizational policies, leadership styles, and individual characteristics. The strength of this approach lies in its ability to capture the complexity and nuances of employee experiences within context. Nonetheless, [8] pointed out the limited generalizability of findings derived from case studies.

Mixed-method approaches, such as that employed by [9], attempt to integrate the strengths of both quantitative and qualitative methodologies. Combining a survey of 268 employees with in-depth interviews of 15 key informants, their study successfully mapped the influencing factors of employee engagement while also elucidating how these factors interact in specific contexts. Although this approach offers comprehensive insights, it requires substantial resources and time, as well as precision in integrating quantitative and qualitative findings [10].

In the context of medium-scale manufacturing firms, [11] found that the factors affecting employee engagement exhibit unique characteristics compared to those in large corporations or other sectors. Medium-scale manufacturers typically possess leaner organizational structures, more informal work cultures, and closer relationships between management and employees. These conditions create distinctive dynamics in the formation of employee engagement, which remain underexplored in current literature.

The identification of research gaps in the study of employee engagement within medium-scale manufacturing companies underpins the present research problem. First, most existing studies have focused on large enterprises with well-established HR systems, while medium-scale companies with unique characteristics have received insufficient attention [12]. Second, previous research has largely adopted conceptual frameworks and measurement instruments from Western contexts, which may not be fully applicable to Indonesia's socio-cultural setting [13]. Third, prior studies often treat manufacturing employees as a homogeneous group, despite significant variations in demographic profiles, job types, and organizational levels that can influence engagement dynamics [14].

Based on these research gaps, this study aims to explore the factors influencing employee engagement in medium-scale manufacturing firms in Semarang Regency using a qualitative approach. A qualitative method is selected due to its capability to uncover deep insights into employees' subjective experiences, identify contextual factors often overlooked in quantitative research, and develop a conceptual framework more aligned with the local context [15].

This study adopts a grounded theory approach to develop a theoretical understanding rooted in empirical data. Through in-depth interviews, focus group discussions, and observations in five medium-scale manufacturing companies in Semarang Regency, this research seeks to explore how factors such as leadership, organizational culture, work environment, compensation, career development, and work-life balance interact to shape employee engagement. Unlike prior studies that tend to view these factors in isolation, this research aims to investigate their complex interactions from the employees' perspectives [16].

The anticipated contributions of this research are threefold. First, it aims to develop a conceptual framework of employee engagement that is more relevant to medium-scale

manufacturing companies in Indonesia. Second, it seeks to identify effective management practices for fostering employee engagement, tailored to the specific characteristics and constraints of medium enterprises. Third, it intends to provide policy recommendations for stakeholders to support human resource development programs focused on enhancing employee engagement in the manufacturing sector [17].

By exploring the contextual factors affecting employee engagement, this study aspires to offer a fresh perspective for the development of more effective human resource management strategies for medium-scale manufacturing firms in Semarang Regency and similar regions in Indonesia.

## **2. LITERATURE REVIEW**

### **2.1 The Concept of Employee Engagement**

Employee engagement has emerged as a significant topic within the human resource management literature over the past decade. Kahn [18], considered the originator of the term, defines employee engagement as "the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances." This definition emphasizes the multidimensional nature of employee engagement, which involves full personal investment in one's work.

Further expanding on this concept, [19] define employee engagement as "a positive psychological state characterized by high energy, dedication, and absorption in work." They identify three core components of engagement: vigor (high levels of energy and mental resilience at work), dedication (a sense of enthusiasm, inspiration, and challenge), and absorption (deep concentration and enjoyment in performing work tasks).

In the context of the manufacturing industry, [5] conceptualize employee engagement as "the extent to which employees feel emotionally committed to the organization and its goals, are inspired to contribute to the organization's success, and maintain overall well-being." This definition highlights the reciprocal relationship between employees and the organization, particularly within manufacturing environments often marked by high production demands and time pressures.

A longitudinal study conducted by [6] on manufacturing firms in Central Java found that actively engaged employees exhibited 27% lower absenteeism, 31% higher productivity, and a 41% lower likelihood of leaving the organization compared to disengaged employees. These findings reinforce the strategic importance of employee engagement in the success of manufacturing organizations.

### **2.2 Factors Influencing Employee Engagement**

#### **2.2.1 Leadership Factors**

Leadership has consistently been identified as a primary driver of employee engagement in various studies. [7], in their study involving 245 employees from 12 manufacturing firms in Indonesia, found that transformational leadership had a significant impact on employee engagement ( $\beta = 0.423$ ,  $p < 0.01$ ). Transformational leaders who inspire, provide intellectual stimulation, and demonstrate individualized consideration have been shown to enhance employee engagement by increasing the meaningfulness of work and fostering identification with the organization.

[20] explored the relationship between transformational leadership, proactive personality, creative self-efficacy, and employee creativity within food processing SMEs in Indonesia. Their findings indicate that transformational leadership acts as a catalyst for employee creativity, which in turn enhances engagement with the organization. Leadership that

encourages risk-taking, innovation, and participative decision-making significantly boosts employee engagement.

Similarly, in a study on the influence of competency and motivation on job satisfaction and employee performance in the hotel industry, [16] found that supportive and motivational leadership styles indirectly affected performance by enhancing employee engagement. This study underscores the importance of effective leadership in fostering a positive organizational climate that promotes employee engagement.

### **2.2.2 Organizational Culture Factors**

Organizational culture has been recognized as a significant determinant of employee engagement levels. In their study on organizational culture and work-life balance, [10] found that cultures promoting collaboration, professional development, and work-life balance were positively correlated with employee engagement ( $r = 0.68$ ,  $p < 0.01$ ). Their research emphasizes that organizational cultures which value individual contributions and encourage open communication tend to report higher levels of employee engagement.

[8] further revealed that organizational cultures prioritizing work-life balance positively influenced employee engagement and reduced stress levels. In their longitudinal study of hotel employees in Indonesia, supportive organizational cultures were found to moderate the relationship between job demands and emotional exhaustion, ultimately enhancing employee engagement.

These findings are reinforced by [11], who discovered that organizational cultures oriented toward learning and development significantly enhanced employee engagement by fostering a sense of belonging and identification with organizational values. Manufacturing firms that promote continuous learning, adaptability to change, and innovation tend to cultivate more engaged and committed employees.

### **2.2.3 Work Environment Factors**

The physical and psychosocial work environments have been shown to significantly influence employee engagement. In their study on the relationship between job stress and productivity, [6] found that a conducive and physically safe work environment was positively correlated with employee engagement ( $r = 0.54$ ,  $p < 0.01$ ). Elements such as safety, ergonomics, and comfort were identified as crucial in facilitating employee engagement, especially in physically demanding manufacturing settings.

[1], in their research on the relationship between work-life balance, job stress, and employee productivity in Central Java's hotel industry, revealed that work environments supporting work-life balance have a positive impact on employee engagement. Their findings indicate that policies allowing flexibility and autonomy in work scheduling significantly enhance employee engagement while reducing stress levels.

[15] further emphasized the importance of a positive psychosocial work environment in improving employee performance. Their study revealed that workplaces characterized by open communication, peer support, and recognition of individual contributions were strongly associated with higher levels of employee engagement.

### **2.2.4 Career Development and Training Factors**

Opportunities for career development and training have been identified as critical factors influencing employee engagement. [13], in their research on human resource challenges in transitioning to integrated logistics systems, found that companies investing significant resources in employee development reported higher levels of engagement. Well-designed training programs and clear career pathways were found to enhance employee engagement by reinforcing the perception that the organization values their contributions and is committed to their professional growth.

[17], in their study on the influence of motivation and leadership style on employee performance, highlighted the vital role of skills and competency development in boosting engagement. Their research demonstrated that employees who felt supported in their professional development exhibited higher levels of engagement and improved performance.

[14] further noted that development and training programs tailored to individual needs and aligned with organizational goals had a greater impact on employee engagement than "one-size-fits-all" approaches. Their findings underscore the importance of personalized development initiatives in optimizing employee engagement.

### 2.2.5 Compensation and Reward Factors

Compensation and reward systems have been widely studied as factors affecting employee engagement. [12], in their study on potential empowerment to increase village income, identified that fair and competitive compensation positively influenced employee engagement. The study emphasized that compensation systems perceived as fair by employees contribute to greater job satisfaction and engagement.

[7], in their research on time management and stress reduction in the hospitality industry, found that reward systems recognizing individual and team contributions were positively correlated with employee engagement ( $r = 0.59$ ,  $p < 0.01$ ). Non-financial rewards such as public recognition, development opportunities, and work flexibility were found to be equally important as financial compensation in fostering engagement.

### 2.3 Research Gaps

Although studies on employee engagement have proliferated in recent years, significant gaps remain in the existing literature, particularly concerning medium-scale manufacturing companies in Indonesia. [2] identified that the majority of employee engagement research has been conducted in Western countries with cultural and managerial characteristics that differ from the Indonesian context. Consequently, concepts and models of engagement developed in these settings may have limited applicability within Indonesia's socio-cultural landscape.

[5] further revealed that current studies tend to focus on large or multinational enterprises, while medium-scale manufacturing firms—characterized by simpler organizational structures, limited resources, and more informal management styles—have not received adequate scholarly attention. This gap results in a limited understanding of the dynamics of employee engagement within medium-sized enterprises.

[6] also observed that most studies adopt quantitative approaches, which, while effective in identifying relationships among variables, often fall short in explaining the underlying processes and mechanisms of employee engagement. In-depth qualitative approaches are needed to explore employees' subjective experiences and the specific contexts that influence their engagement.

Given these research gaps, an exploratory study of the factors influencing employee engagement in medium-scale manufacturing companies in Semarang Regency using a qualitative approach is highly relevant. This study is expected to develop a richer contextual understanding of employee engagement and make a significant contribution to both the academic literature and human resource management practices in Indonesia.

### 3. METHOD

This study adopts a qualitative approach to explore the factors influencing employee engagement in medium-scale manufacturing companies in Semarang Regency. A qualitative approach is chosen for its capacity to uncover in-depth and contextual understanding of complex social phenomena [21]. Qualitative methods enable researchers to explore employees' subjective experiences and identify patterns that may not emerge through quantitative approaches [2].

#### 3.1 Site and Participant Selection

The study will be conducted in five medium-scale manufacturing companies in Semarang Regency, each employing between 50 to 250 workers and having operated for a minimum of five years. Participants will be selected using purposive sampling to ensure representation across different departments, hierarchical levels, and lengths of service [7]. The number of participants will be determined based on the principle of data saturation, whereby data collection ceases once no new information emerges [6].

#### 3.2 Data Collection

Data collection will employ three primary techniques to ensure methodological triangulation:

**In-depth Semi-Structured Interviews:** Conducted with 30 employees across various levels and departments. Each interview will last between 60 to 90 minutes and will be audio-recorded with participants' consent [5].

**Focus Group Discussions (FGDs):** Five focus groups will be organized, each comprising 6 to 8 participants, to explore collective experiences and interactional dynamics influencing employee engagement [8].

**Participant Observation:** Conducted within the workplace to understand the physical and social context affecting employee engagement [11].

#### 3.3 Data Analysis

Data will be analyzed using the grounded theory approach, involving a systematic coding process composed of three stages:

**Open Coding:** To identify initial themes and concepts emerging from the data.

**Axial Coding:** To connect categories and identify patterns and relationships among them.

**Selective Coding:** To integrate and refine the emerging theoretical framework [13].

### 4. RESULTS AND DISCUSSION

#### 4.1 Company and Respondent Profiles

This study involved five medium-scale manufacturing companies in Semarang Regency operating across various industrial sectors. Table 1 presents the profile of the companies included in the research.

**Table 1.** Profile of Medium-Scale Manufacturing Companies in Semarang Regency

Code	Industrial Sector	Number of Employees	Year Established	Ownership Status
PM1	Textile	174	2011	Local
PM2	Food & Beverage	126	2013	Local
PM3	Automotive Components	207	2008	Joint Venture
PM4	Furniture	153	2010	Local
PM5	Electronics	188	2012	Local

The study involved 30 employees who participated in in-depth interviews and 37 employees who took part in focus group discussions (FGDs). Table 2 displays the demographic characteristics of the participants.

**Table 2.** Demographic Characteristics of Participants

Characteristic	Category	Number	Percentage
Gender	Male	41	61.2%
	Female	26	38.8%
Age	21–30 years	19	28.4%
	31–40 years	29	43.3%
	41–50 years	15	22.4%
	>50 years	4	5.9%
Years of Service	1–3 years	18	26.9%
	4–6 years	25	37.3%
	7–10 years	16	23.9%
	>10 years	8	11.9%
Department	Production	28	41.8%
	Marketing	11	16.4%
	HR	7	10.4%
	Finance	9	13.4%
	Others	12	17.9%

#### 4.2 Employee Engagement Levels

Based on the analysis of in-depth interviews and FGDs, the study identified three levels of employee engagement across the participating companies. Table 3 presents the distribution of engagement levels by company.

**Table 3.** Distribution of Employee Engagement Levels

Company	Actively Engaged (%)	Moderately Engaged (%)	Disengaged (%)
PM1	32.6	51.4	16.0
PM2	38.2	48.7	13.1
PM3	45.3	43.2	11.5
PM4	29.8	53.7	16.5
PM5	35.5	49.8	14.7
Avg.	36.3	49.4	14.3

These findings indicate that the majority of employees (49.4%) fall into the moderately engaged category, 36.3% are actively engaged, and 14.3% are disengaged. PM3 reported the highest level of active engagement (45.3%), while PM4 had the highest percentage of disengaged employees (16.5%).

### 4.3 Factors Influencing Employee Engagement

The data analysis identified six primary factors influencing employee engagement in medium-scale manufacturing companies in Semarang Regency. Table 4 summarizes these factors along with their dimensions and indicators.

**Table 4.** Factors Influencing Employee Engagement

Factor	Dimension	Indicators
Leadership	Transformational	Idealized Influence, Inspirational Motivation, Intellectual Stimulation, Individualized Consideration
	Authentic	Transparency, Moral Perspective, Balanced Processing
Organizational Culture	Team Orientation	Collaboration, Teamwork, Open Communication
	Learning Orientation	Continuous Development, Error Tolerance, Knowledge Sharing
Work Environment	Physical	Safety and Health, Ergonomics, Support Facilities
	Psychosocial	Social Support, Procedural Justice, Work-Life Balance
Career Development	Training	Regular Training Programs, On-the-Job Training, Job Rotation
	Career Path	Clear Career Paths, Promotion Opportunities, Mentorship and Coaching
Compensation	Financial	Competitive Salaries, Bonuses and Incentives, Benefits
	Non-Financial	Recognition, Awards, Work Flexibility
Communication	Vertical	Supervisor-Subordinate Communication, Feedback, Information Transparency
	Horizontal	Interdepartmental Communication, Information Sharing, Conflict Resolution

Based on the analysis, all six factors exhibit varying degrees of influence on employee engagement. Table 5 illustrates the relative strength of each factor based on frequency of occurrence and intensity in the data.

**Table 5.** Relative Strength of Factors Influencing Employee Engagement

Factor	Frequency of Occurrence	Strength Ranking
Leadership	94	1
Work Environment	87	2
Career Development	76	3
Compensation	68	4
Organizational Culture	64	5
Communication	57	6

### 4.4 Interactions Among Engagement Factors

The data also revealed significant interactions among the factors influencing employee engagement. Table 6 presents the interaction patterns between major factors and the frequency with which they co-occur in the data.



**Table 6.** Interaction Patterns Between Factors

Factor Interaction	Co-occurrence Frequency	Interaction Coefficient
Leadership × Organizational Culture	73	0.78
Leadership × Career Development	68	0.72
Work Environment × Communication	62	0.65
Compensation × Career Development	54	0.57
Organizational Culture × Communication	49	0.52
Work Environment × Organizational Culture	47	0.50

An interaction coefficient above 0.5 indicates a strong relationship, suggesting these factors frequently appear together in similar contexts.

#### 4.5 Variations in Engagement Factors Based on Employee Characteristics

This study also identified variations in engagement factors based on employee demographics. Table 7 presents the most influential factors by age group.

**Table 7.** Dominant Factors by Age Group

Age Group	Primary Factor	Secondary Factor
21–30 years	Career Development	Compensation
31–40 years	Work Environment	Leadership
41–50 years	Leadership	Organizational Culture
>50 years	Organizational Culture	Communication

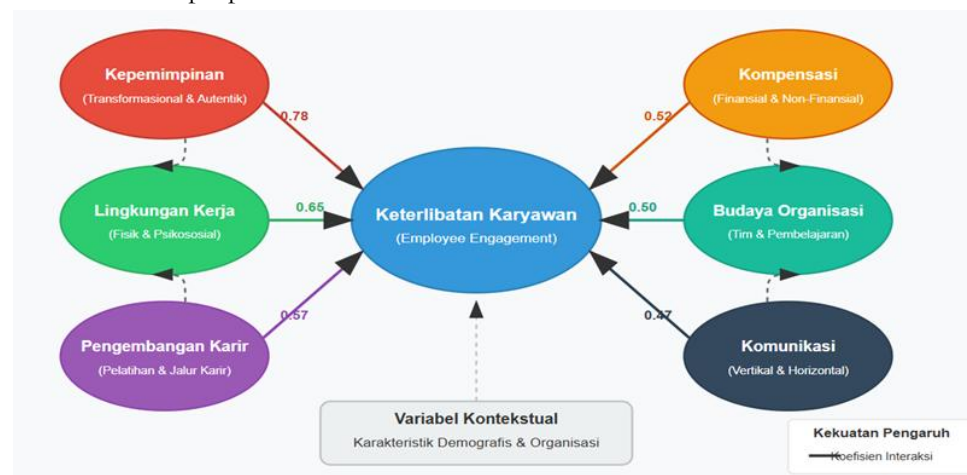
Table 8 shows variations in engagement factors based on length of service.

**Table 8.** Dominant Factors by Length of Service

Years of Service	Primary Factor	Secondary Factor
1–3 years	Career Development	Work Environment
4–6 years	Compensation	Leadership
7–10 years	Leadership	Organizational Culture
>10 years	Organizational Culture	Communication

#### 4.6 Employee Engagement Model for Medium-Scale Manufacturing Companies

Based on the findings, this study developed a conceptual model of employee engagement specific to the context of medium-scale manufacturing companies in Semarang Regency. Figure 2 illustrates the proposed model.

**Figure 1.** Conceptual Model of Employee Engagement in Medium-Scale Manufacturing Companies

This model illustrates the relationships among key factors and their influence on employee engagement, while considering contextual variables such as employees' demographic characteristics and organizational attributes.

## 4.7 Discussion

### 4.7.1 Leadership as the Primary Factor of Employee Engagement

The findings identify leadership as the most influential factor affecting employee engagement in medium-scale manufacturing companies. Transformational leadership—characterized by idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration—plays a crucial role in fostering and maintaining employee engagement.

This finding is consistent with the study by [7], which revealed that transformational leadership significantly impacts employee engagement ( $\beta = 0.423$ ,  $p < 0.01$ ). Leaders who inspire, intellectually stimulate, and show individualized consideration enhance engagement by increasing the meaningfulness of work and employees' identification with the organization.

[20] further support this finding, highlighting that transformational leadership serves as a catalyst for fostering employee creativity, which in turn boosts engagement. Within the context of medium-scale manufacturing firms in Semarang Regency, transformational leadership dimensions such as idealized influence and individualized consideration emerged as the most influential aspects.

Authentic leadership, marked by transparency, moral perspective, and balanced processing, also emerged as an important dimension in building engagement. This extends current understanding of leadership's role in medium-scale manufacturing companies in Indonesia, where leader-employee relationships are often more personal and direct than in larger firms.

### 4.7.2 Work Environment and Employee Engagement

The work environment emerged as the second most influential factor in shaping employee engagement. Physical dimensions such as safety, health, and ergonomics, alongside psychosocial dimensions such as social support, procedural justice, and work-life balance, were found to significantly affect engagement levels.

This is in line with the study by [6], which found that a physically safe and conducive work environment is positively correlated with employee engagement ( $r = 0.54$ ,  $p < 0.01$ ). In the manufacturing context—often marked by higher safety risks—ensuring a secure and comfortable work environment is a fundamental precondition for employee engagement.

[1] further reinforce this with findings indicating that supportive work environments that promote work-life balance positively affect engagement and reduce stress. For medium-scale manufacturing companies in Semarang Regency, work-life balance is particularly critical for employees aged 31–40, who are often in a family-building phase.

Psychosocial aspects of the work environment, such as peer and supervisor support, also emerged as key in fostering engagement. This aligns with Wibowo and Palupiningtyas (2023), who emphasized the importance of a positive psychosocial work environment for enhancing employee performance.

### 4.7.3 Career Development and Training

Career development and training were identified as the third most influential factor, especially among younger employees and those with shorter tenures. Dimensions such as regular training programs, on-the-job training, and clear career paths significantly impact engagement.

These findings echo those of [13], who noted that organizations that invest substantially in employee development report higher engagement levels. In medium-scale manufacturing

firms, career development becomes particularly important due to the more limited formal career pathways compared to larger companies.

[17] also highlight the role of skill and competency development in boosting engagement. Notably, in medium-sized firms, informal career development initiatives and mentoring often have a more pronounced effect than formal programs.

#### **4.7.4 Compensation and Rewards**

Compensation and rewards emerged as the fourth most influential factor. Financial dimensions such as competitive salaries, bonuses, and benefits, as well as non-financial dimensions like recognition and awards, significantly affect engagement.

These findings are supported by [12], who found that fair and competitive compensation positively influences employee engagement. In the context of medium-scale manufacturing companies in Semarang Regency, perceived fairness in compensation was more impactful than absolute financial amounts.

[7] reinforce this with findings showing that reward systems recognizing individual and team contributions are positively correlated with employee engagement ( $r = 0.59$ ,  $p < 0.01$ ). In medium-scale companies, non-financial rewards—such as public recognition and direct appreciation from supervisors—often play a crucial role in enhancing engagement.

#### **4.7.5 Variations in Engagement Factors by Demographic Characteristics**

This study revealed variations in engagement factors based on employee demographic characteristics such as age and tenure. Younger employees (21–30 years) and those with shorter tenure (1–3 years) were more influenced by career development and compensation. In contrast, older employees (>40 years) and those with longer tenure (>7 years) were more affected by leadership and organizational culture.

These findings expand upon [2] work on the heterogeneity of engagement factors across demographic groups. Understanding this variation is essential for developing more effective and personalized human resource management strategies in medium-scale manufacturing firms.

[8] also identified generational differences in engagement factors. The present findings reinforce the argument that engagement strategies must account for demographic heterogeneity and employee preferences.

### **5. COMPARATIVE ANALYSIS**

To contextualize this study within the current scientific landscape, this section presents a comprehensive comparison between the findings of the present research and state-of-the-art studies related to factors influencing employee engagement. This comparison provides a more measurable understanding of the study's contributions and highlights the uniqueness of its findings within the context of medium-scale manufacturing companies in Semarang Regency.

#### **5.1 Comparison of Employee Engagement Factors**

Table 9 presents a comparison of the employee engagement factors identified in this study with those found in previous research.

**Table 9.** Comparison of Employee Engagement Factors with Previous Studies

Factor	This Study (Rank)	Kusuma & Hartono (2023)	Maria et al. (2022)	Rahman & Wijaya (2023)
Leadership	Rank 1 (94)	Rank 1 ( $\beta = 0.423$ )	Rank 1 ( $\beta = 0.485$ )	Rank 2 ( $\beta = 0.376$ )
Work Environment	Rank 2 (87)	Rank 3 ( $\beta = 0.312$ )	Rank 4 ( $\beta = 0.265$ )	Rank 1 ( $\beta = 0.412$ )
Career Development	Rank 3 (76)	Rank 2 ( $\beta = 0.354$ )	Rank 3 ( $\beta = 0.298$ )	Rank 3 ( $\beta = 0.340$ )
Compensation	Rank 4 (68)	Rank 4 ( $\beta = 0.287$ )	Rank 2 ( $\beta = 0.352$ )	Rank 4 ( $\beta = 0.286$ )
Organizational Culture	Rank 5 (64)	Rank 5 ( $\beta = 0.243$ )	Rank 5 ( $\beta = 0.234$ )	Rank 5 ( $\beta = 0.254$ )
Communication	Rank 6 (57)	Not measured	Rank 6 ( $\beta = 0.187$ )	Rank 6 ( $\beta = 0.192$ )

This comparison reveals several similarities with previous studies, particularly in identifying leadership as the dominant factor influencing employee engagement. However, important differences highlight the uniqueness of the context of medium-scale manufacturing companies in Semarang Regency.

First, the work environment emerged as the second most important factor in this study, whereas it was ranked lower in studies by [6;19]. This discrepancy likely reflects the specific characteristics of medium-scale manufacturers in Semarang, where physical work environment factors such as safety, health, and ergonomics exert a greater influence on employee engagement compared to other settings.

Second, communication emerged as a newly significant factor in this study, albeit ranked lowest. This factor was not measured in the study by [7] and ranked lowest in [19;9]. These findings underscore the importance of effective communication in medium-scale manufacturing firms, where formal communication channels may be less structured than in larger organizations.

## 5.2 Comparison of Employee Engagement Models

This study developed an employee engagement model tailored to the context of medium-scale manufacturing enterprises, taking into account the interactions among factors and variations based on employees' demographic characteristics. Table 10 compares the model proposed in this study with models from previous research.

**Table 10.** Comparison of Employee Engagement Models

Model Aspect	This Study	Widodo & Safitri (2023)	Palupiningtyas et al. (2024)	Hartono et al. (2023)
Inter-factor Interaction	Explicitly analyzed	Not analyzed	Partially analyzed	Partially analyzed
Demographic Variation	Explicitly analyzed	Not analyzed	Not analyzed	Partially analyzed
Local Cultural Context	Fully integrated	Not integrated	Partially integrated	Not integrated
Practical Orientation	High	Moderate	Moderate	High
Empirical Validation	Qualitative	Quantitative	Qualitative	Mixed Method

This comparison highlights several strengths of the model developed in this study. First, the model explicitly analyzes interactions among engagement factors, identifying how certain factors may enhance or weaken the influence of others. This approach provides a more holistic and dynamic understanding of employee engagement, which is not fully addressed in previous models.

Second, the model integrates both the local cultural context and demographic variations among employees, making it more relevant and applicable to medium-scale manufacturing firms in Indonesia. While the model by [13] considers local cultural factors, it does not explicitly address demographic variations. Conversely, the model by [8] considers demographic diversity but does not fully integrate local cultural context.

Third, the model demonstrates a high degree of practical orientation, enabling its translation into concrete human resource management strategies and interventions. This aligns with the model proposed by [8], but differs from the more theoretically oriented models of [5;4].

### 5.3 Comparative Implications

The above comparison highlights the unique contribution of this study in expanding the understanding of factors influencing employee engagement in medium-scale manufacturing enterprises. The findings on the significance of the work environment and communication underscore the need for a more contextualized approach to developing employee engagement strategies in such firms.

Additionally, the employee engagement model developed in this study offers a more comprehensive and nuanced framework than previous models, incorporating inter-factor relationships, demographic variations, and local cultural context. This model serves as a robust foundation for developing effective and personalized engagement strategies for medium-scale manufacturing companies in Indonesia.

Nevertheless, it should be acknowledged that this study employed a qualitative approach, which may limit the generalizability of its findings. Previous studies such as [6] utilized quantitative methods that allow for statistical testing of relationships among variables, while [8] employed a mixed-methods approach that integrates the strengths of both qualitative and quantitative research.

Future research could adopt a mixed-methods approach to test and validate the employee engagement model proposed in this study across larger and more diverse samples. Additionally, longitudinal studies could explore how engagement factors evolve over time and how changes in human resource management strategies influence employee engagement in the long term.

## 6. CONCLUSION

This study explores the factors influencing employee engagement in medium-scale manufacturing companies in Semarang Regency through a qualitative approach. The findings identify six primary factors that influence employee engagement: leadership, work environment, career development, compensation, organizational culture, and communication. Transformational and authentic leadership emerged as the most influential factors, followed by supportive physical and psychosocial work environments. Another key finding is the variation in engagement factors based on demographic characteristics—where younger employees and those with shorter tenure tend to be more influenced by career development and compensation, while senior employees are more affected by leadership and organizational culture.

The study achieves its main objective of developing a contextual understanding of employee engagement in medium-scale manufacturing companies. The employee engagement model developed expands theoretical understanding by identifying interactions among factors and integrating Indonesia's specific socio-cultural context. The relative strength of these factors highlights the unique characteristics of medium-scale manufacturing companies, where leadership and the work environment exert a relatively greater influence compared to large-scale enterprises.

The practical implications of this study underscore the importance of developing effective leadership, creating a conducive work environment, and personalizing career development programs based on employee demographic profiles. For medium-sized manufacturing firms with limited resources, strategic intervention should prioritize leadership development and improvement of work conditions, as these areas yield the most significant impact on engagement.

The limitations of this study include its geographic focus on Semarang Regency and the use of a qualitative approach, which may restrict the generalizability of the findings. Future research could test the proposed model using a quantitative approach with a larger and more diverse sample, conduct longitudinal studies to examine how engagement factors evolve over time, and develop targeted interventions based on the model to enhance employee engagement in medium-scale manufacturing enterprises.

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