

## **The Mediating Role of Organizational Culture in the Relationship Between Leadership Styles and Employee Engagement: An Analytical Study of Kurdistan Manufacturing Companies**

**Hazhar Omer Mohammed**

Department of Business Administration, College of Administration and Economics,  
Lebanese French University, Erbil Kurdistan Region, Iraq.

[hazharbus@gmail.com](mailto:hazharbus@gmail.com)

### **ARTICLE INFO**

**Article History:**

Received: 20/11/2023

Accepted: 16/1/2024

Published: Summer 2024

**Keywords:**

*Employee engagement, empowering leadership, manufacturing companies, supportive leadership, transformational leadership.*

**Doi:**

10.25212/lfu.qzj.9.2.48

### **ABSTRACT**

The study's major aim is to explore and analyze the mediation role of organizational culture between leadership styles and employee engagement within Kurdistan manufacturing companies. As a result, a structural equation model was estimated using 140 questionnaire responses collected from a cluster of 35 selected manufacturing companies in Erbil, Kurdistan. The collected data was analysed using a structural equation modelling approach with the aid of Smart PLS data analysis program. The results of the study demonstrated that organizational culture lowly and significantly mediate the relationship between transformational leadership and employee engagement, and moderately and significantly mediate the relationships between supportive leadership and employee engagement. It was further revealed that organizational culture does not mediate the relationships between empowering leadership and employee engagement. The study recommends manufacturing companies to consider implementing multifaceted strategies that address both leadership development and the cultivation of a conducive organizational culture.

## **1. Introduction**

The intermediary role of organizational culture in the relationship between effective leadership styles and employee engagement is an area that requires deeper exploration. Organizational culture serves as a contextual framework that can either enhance or hinder the effects of leadership styles on employee engagement. On the other hand, effective leadership styles and high levels of employee engagement are integral components contributing to organizational success. Leadership styles significantly influence how employees perceive their work environment, impacting their motivation, satisfaction, and overall performance. The impact of leadership styles on organizational success is profound. According to Northouse (2014), different styles, such as transformational, supportive and empowering leadership, can shape the organizational climate, affecting employee morale, teamwork, and innovation. Transformational leaders, for instance, inspire and motivate their teams, fostering a shared vision and encouraging individual growth, leading to higher levels of engagement. Conversely, ineffective leadership can create dissatisfaction, high turnover rates, and hindered productivity.

Boccoli, Gastaldi and Corso (2023) attest that employee engagement reflects the emotional commitment and dedication employees have toward their organization's goals, affecting their willingness to invest discretionary effort in their work. Employee engagement, characterized by enthusiasm, commitment, and involvement, directly influences organizational outcomes. Engaged employees are more productive, and innovative, and contribute positively to the bottom line. They are likely to go beyond their job descriptions, offer creative solutions, and build stronger customer relationships, ultimately driving organizational growth and success.

Meanwhile, organizational culture plays a pivotal role in shaping employee behaviour, attitudes, and actions within the workplace. In the same context, Arena, Hines, and Golden (2023) contend that culture encompasses shared values, beliefs, norms, and practices that define how things are done within an organization. It influences the way employees interact, make decisions, and align themselves with

the organization's objectives. A positive and supportive culture fosters employee engagement by promoting a sense of belonging, purpose, and alignment with organizational values. Conversely, a toxic or negative culture can lead to disengagement, conflicts, and hindered performance.

In essence, the alignment between leadership styles, employee engagement, and organizational culture is crucial for fostering a conducive work environment that drives success. A supportive culture nurtures engaged employees, while effective leadership enhances engagement, collectively contributing to improved performance, innovation, and productivity within an organization. Understanding these interrelated dynamics is vital for creating a thriving workplace that propels organizational success.

In the realm of organizational behaviour and management studies, while extensive research exists on leadership styles, employee engagement, and organizational culture independently, there is a notable gap in comprehensively understanding the mediation effect of organizational culture in the relationship between leadership styles and employee engagement. Existing literature often examines leadership styles and employee engagement as separate entities without sufficiently considering the role of organizational culture as a mediator (Arena, Hines & Golden, 2023; Boccoli, Gastaldi & Corso, 2023). Moreover, studies tend to analyze the direct impact of leadership styles on engagement without delving into the mechanisms through which organizational culture influences this relationship (Davis, 2023; Rezeki, Mardiputera & Wulandari, 2023). For this reason, transformational, supportive and empowering leadership styles were integrated into the analysis of organizational culture's influence on small business performance. Thus, the understanding of how leadership styles indirectly influence employee engagement through the lens of organizational culture remains underexplored. Furthermore, current studies lack comprehensive models that intricately explore the interconnectedness of leadership styles, organizational culture, and employee engagement. Most research tends to focus on linear relationships rather than considering the complex interplay and mediating effects that might exist among

these variables (Othman et al., 2017; Popli & Rizvi, 2016). Given such observations, the study, therefore, aims to explore and analyze the mediation role of organizational culture between leadership styles and employee engagement within Kurdistan manufacturing companies. In that context, the following questions were answered:

- 1) Does organizational culture mediate the relationships between transformational leadership and employee engagement?
- 2) Does organizational culture mediate the relationship between supportive leadership styles and employee engagement?
- 3) Does organizational culture mediate the relationship between empowering leadership styles and employee engagement?

This study fills a gap in understanding the nuanced interplay and mediation effect of organizational culture on the relationship between leadership styles and employee engagement within specific organizational contexts like Kurdistan's manufacturing sector. Bridging this gap is critical for developing tailored strategies that effectively enhance employee engagement through the alignment of leadership and organizational culture.

## **2. Literature review**

### **2.1 Introduction**

Literature gaps exist in translating research findings into practical strategies for organizational leaders. Understanding how specific leadership styles interact with organizational culture to influence employee engagement can provide actionable insights for fostering a conducive work environment. Different leadership styles encompass varying characteristics, communication methods, decision-making approaches, and interactions with followers. Some common leadership styles include transformational, laissez-faire, democratic, autocratic, servant leadership, transactional leadership, supportive and empowering leadership. Studies often restrict the implications of a restricted number of leadership styles such as transformational, laissez-faire, democratic, autocratic and transactional leadership

to vital organizational indicators like organisational performance and employee commitment (Gemedá & Lee, 2020; Para-González, Jiménez-Jiménez & Martínez-Lorente, 2018). Leadership styles such as supportive and empowering leadership styles are barely covered in academic studies (Jensen, Potočnik & Chaudhry, 2020; Para-González, Jiménez-Jiménez & Martínez-Lorente, 2018; Susanto et al., 2023). However, the importance of building examinations on transformational leadership style cannot be downplayed as it is presumed to influence vital organisational outcomes like performance (Para-González, Jiménez-Jiménez & Martínez-Lorente, 2018). In that context, with few examinations have been done to explore how transformational leadership style impacts employee engagement, we proposed that such effects be analysed within the context of manufacturing companies in Kurdistan. Therefore, our contribution is in the development of a model that integrates supportive and empowering leadership styles' effects on employee engagement. As a result, the study tackled empirical issues about the lack of agreement regarding these interactive relationships. According to Northhouse (2014), transformational inspires and motivates followers by creating a compelling vision, encouraging innovation, and fostering individual growth and development. Drawing further from Northhouse (2014), it can be observed that supportive leadership provides the emotional and interpersonal support that contributes to a positive work environment while empowering leadership focuses on providing individuals with the autonomy and authority to excel in their roles. Together, these styles create a workplace culture that values and engages employees, ultimately leading to increased job satisfaction and organizational performance. According to Boccoli, Gastaldi and Corso (2023), employee engagement refers to the emotional commitment, enthusiasm, and dedication employees have toward their work, their team, and the organization as a whole. Engaged employees are passionate about their roles, committed to organizational goals, and willing to invest discretionary effort to contribute to the success of the organization. Engaged employees tend to exhibit higher levels of productivity, innovation, job satisfaction, and a willingness to go beyond the call of duty.

A strong and positive organizational culture contributes to employee satisfaction, engagement, and alignment with organizational goals, while a toxic or negative culture can hinder performance, innovation, and employee morale. Review existing literature on their individual impacts and the proposed relationships between them.

## **2.2 Theoretical Foundation**

Organizational culture refers to the shared values, beliefs, attitudes, behaviours, and norms that shape the way people within an organization interact and operate (Wahyuningsih et al., 2019). That is, it represents the collective identity of an organization and influences how individuals perceive their work environment, make decisions, and behave within the organizational context. Organizational culture can be categorized based on various dimensions such as values and beliefs, norms and behaviours, symbols and artefacts, and mission and vision. According to Northouse (2014), leadership style refers to the manner and approach in which a leader provides direction, motivates, and guides their team or organization. Meanwhile, employee engagement refers to the emotional commitment and involvement that employees have towards their organization (Boccoli, Gastaldi & Corso, 2023). Engaged employees are enthusiastic about their work, feel a sense of purpose, and are willing to go above and beyond to contribute to the success of the organization. The study draws support from the Social Exchange Theory (SET) because it how different leadership styles create social exchanges between leaders and employees, influencing trust, commitment, and reciprocity. According to Cook et al. (2013), the SET posits that social exchanges are based on the principle of reciprocity. In the workplace, this translates to the exchange of resources (e.g., support, recognition, opportunities) between leaders and employees. Different leadership styles embody varying degrees of reciprocity in these exchanges. Cropanzano et al. (2017) proceed to outline that the SET emphasizes the role of trust and commitment in social exchanges. When leaders demonstrate behaviours aligned with employee needs and expectations, it fosters trust and commitment, essential for sustained engagement.

It is vital to establish that the SET holds significant grounds in this context, especially concerning the application of leadership styles. For instance, transformational leaders engage in inspirational and developmental exchanges with employees. Given that transformational leaders foster trust and commitment by emphasizing shared visions, offering support, and encouraging personal growth (Northouse, 2014), there is always an exchange between transformational leaders and employees. Such exchanges between leaders and employees align with SET principles, leading to higher levels of employee engagement.

The SET can also be deployed in situations involving the application of transactional Leadership. For instance, transactional leaders engage in exchanges based on contingent rewards and corrective actions. This style might lead to transactional exchanges, where employees engage based on anticipated rewards or corrective actions, resulting in moderate levels of engagement.

Concerning supportive leadership, similar notions can also be deduced about the SET and further notions can be raised about its applicability. Bearing in mind, supportive leaders prioritize supporting employees' needs, fostering high-quality exchanges built on trust, mutual respect, and support (Northouse, 2014). This style often fosters strong social exchanges leading to higher employee engagement.

The current study's arguments are embedded in the argument raised about the role of organizational culture as a mediator between leadership styles and employee engagement. To support the manuscript's arguments, it is sound to hold that culture can also serve as a facilitator of exchanges. Using Northouse's (2014) propositions, it can be asserted that organizational culture influences the nature and quality of social exchanges between leaders and employees. A positive culture fosters a supportive environment that encourages open communication, trust, and collaboration, facilitating constructive exchanges. Moreover, a strong organizational culture that aligns with leadership values and behaviours reinforces the social exchanges facilitated by different leadership styles. When culture aligns with a particular leadership style (e.g., transformational leadership), it reinforces the

exchanges, leading to enhanced employee engagement. From this examination, it, therefore, becomes apparent that the SET provides a lens through which the interplay of leadership styles, organizational culture, and employee engagement can be understood, emphasizing the role of reciprocal relationships and trust-building within the organizational context.

## **2.3 Previous Studies**

### **2.3.1 The impact of transformational leadership on employee engagement**

Drawing from Northhouse (2014), it can be noted that transformational leaders articulate a compelling vision for the future. By sharing an inspiring and aspirational vision, leaders motivate employees to align their efforts with organizational goals. Consequently, this sense of purpose contributes to higher levels of engagement as employees see their work as part of a meaningful and impactful journey. To illustrate the purported effects on employee engagement, Ningsih et al. (2023) underscored that transformational leaders pay attention to the individual needs, strengths, and aspirations of their team members. This personalized consideration creates a supportive environment where employees feel valued and understood. When leaders demonstrate genuine care for their employees, it enhances engagement by fostering a sense of belonging. In a study by Rezeki, Mardiputera and Wulandari (2023), it was discovered that transformational leadership affects employee engagement by creating a motivational and supportive environment where individuals feel inspired, recognized, and empowered. The alignment of personal and organizational values, coupled with a focus on individual needs and development, contributes to higher levels of engagement and commitment among employees. Abolnasser et al. (2023) found that transformational leadership affects employee engagement by creating a motivational and supportive environment where individuals feel inspired, recognized, and empowered. The alignment of personal and organizational values, coupled with a focus on individual needs and development, contributes to higher levels of engagement and commitment among employees. Despite all these studies having a huge significance on organisations like manufacturing companies, attempts to analyse how transformational leadership's



positive role can be enhanced by fostering a good organisational culture have been lacking. Thus, to fill this gap, the following hypotheses were suggested:

- **Main hypothesis 1:** Organisational culture mediates the relationship between transformational Leadership and employee engagement.
- **Sub hypothesis 4:** Transformational Leadership has a significantly positive effect on employee engagement.

### **2.3.2 The impact of supportive leadership on employee engagement**

The notion of organisational culture mediating the relationship between supportive leadership and employee engagement goes a long way in addressing long-standing leadership debate issues. Thus, to add to existing literature, this section commences by outlining that supportive leadership contributes to employee engagement by creating a culture of care, trust, and collaboration. In support of this notion, Kossek et al. (2023) established that leaders who prioritize the holistic well-being of their team members, provide individualized attention, and foster open communication contribute to a positive work environment that encourages higher levels of engagement and job satisfaction. Tiyisela (2023) demonstrated that supportive leaders demonstrate adaptability and flexibility. In dynamic work environments, leaders who embrace change positively influence the team's response to challenges. Hence, employees who witness adaptable leadership are more likely to engage in the process of change. Though supportive leadership's direct effects on employee engagement are highly evident, organisational culture's mediate role in this case was overlooked. We, therefore, argue that organizational culture acts as a mediator by influencing how leadership practices are perceived, interpreted, and experienced by employees. The alignment between leadership styles and cultural values significantly shapes the effectiveness of these leadership practices in promoting employee engagement. As a result, the following hypotheses were formulated to cater for such observations:

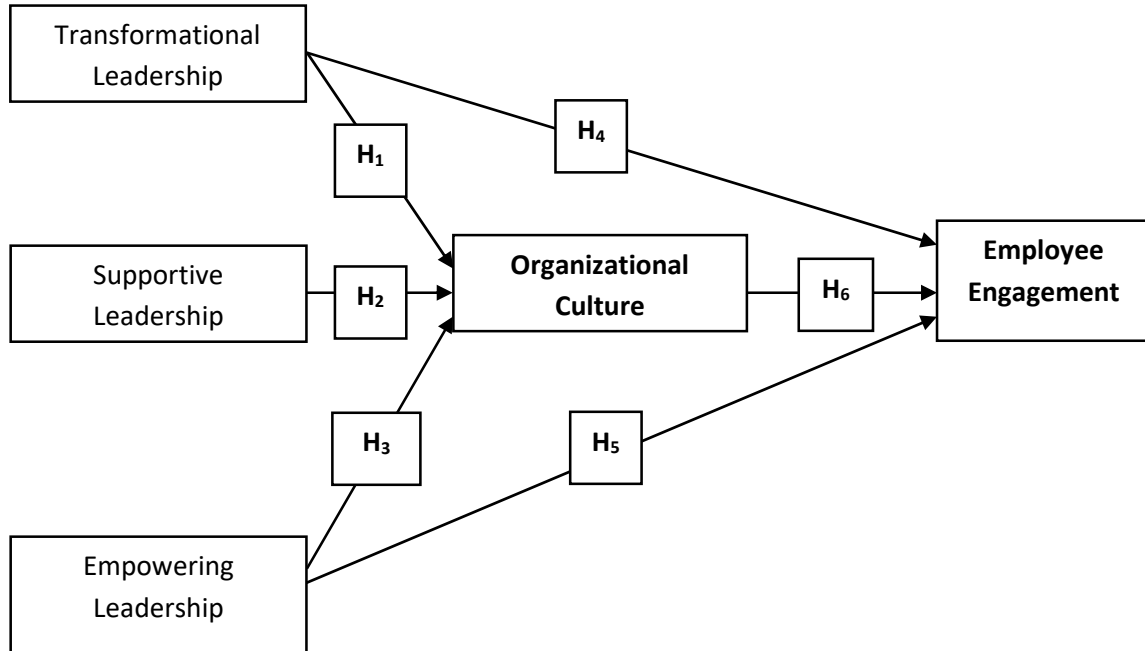
- **Main hypothesis 2:** Organisational culture mediates the relationship between supportive leadership and employee engagement.
- **Sub hypothesis 6:** Organisational culture has a significantly positive effect on employee engagement.

### **2.3.3 The impact of empowering leadership on employee engagement**

To commence our argument, we posit that empowering leadership positively affects employee engagement by providing a supportive and dynamic work environment where individuals have the autonomy to make decisions, feel trusted, and see a clear path for personal and professional growth. To reinforce this notion, Wen, Huang and Teo (2023) contend that empowering leaders delegate decision-making authority to their team members. This autonomy allows employees to take ownership of their work, make decisions, and contribute to the achievement of organizational goals. When individuals have a sense of control over their tasks, it leads to increased engagement as they feel responsible for the outcomes. In another instance, Hsu et al. (2023) found that empowering leadership instils a sense of responsibility among employees. By trusting individuals to handle tasks and projects, leaders communicate that they believe in their capabilities. This sense of responsibility enhances employees' commitment to their work and the organization, contributing to higher levels of engagement. Overall, an empowering leadership style creates a sense of purpose, ownership, and fulfilment among employees, contributing to a highly engaged and motivated workforce. However, such effects carry a huge weight when implemented in an organisation with a good culture. However such has not been the subject of many studies to analyse how organisational culture mediates the relationship between empowering leadership and employee engagement. Amid such discoveries, we proposed the following hypothesis:

- **Main hypothesis 3:** Organisational culture mediates the relationship between empowering leadership and employee engagement.
- **Sub hypothesis 5:** Empowering leadership has a significantly positive effect on employee engagement.

Following the development of the study hypotheses, a conceptual framework shown in Figure 1 was developed for further examination.



**Figure 1:** Conceptual framework

### 3. Research methodology

The study is conducted specifically in Kurdistan manufacturing companies, adding a valuable contextual dimension to the research. This allows for the exploration of how the mediating role of organizational culture operates within a specific cultural, economic, and organizational context, contributing insights that can be more directly applied to the region. The majority of studies examining these constructs have been conducted in Western organizational contexts, potentially limiting the applicability and generalizability of findings to diverse settings such as Kurdistan manufacturing companies. Understanding the mediating role of culture in different cultural and contextual settings is crucial for developing context-specific strategies. Besides, the exploration of leadership styles on employee engagement is widely

concentrated in countries like Ethiopia and South Korea (Gemeda & Lee, 2020) and countries like Kurdistan are barely covered

The methodologies employed in previous studies often lack sophistication in assessing the mediating effect of organizational culture. More advanced statistical techniques, such as Structural Equation Modeling (SEM) or longitudinal studies, are needed to comprehensively examine the mediation pathways. Therefore, a quantitative analysis approach involving the application of a SEM approach was applied. This is because by applying such an approach, the study fills the gap about the lack of a comprehensive understanding of the underlying processes through which leadership styles influence organizational culture, and subsequently, how organizational culture affects employee engagement.

### **3.1 Method**

According to Ringle et al. (2020), SEM is a statistical method that allows researchers to simultaneously examine the complex relationships between multiple variables. Its inclusion in the study provides a holistic understanding of the interplay between leadership styles, organizational culture, and employee engagement. SEM enables the simultaneous examination of multiple paths and the estimation of direct and indirect effects, making it suitable for investigating the mediation role of organizational culture. SEM is well-suited for modelling complex relationships involving multiple variables (Ringle et al., 2020). Given that the study explores the interrelationships between leadership styles, organizational culture, and employee engagement, SEM allows for the simultaneous examination of these factors within a unified framework.

The study incorporates a mediation analysis within the SEM framework, which helps in understanding the mechanisms through which leadership styles influence employee engagement. By investigating the mediating role of organizational culture, the study contributes to a more nuanced comprehension of the dynamics involved in shaping employee engagement within the context of Kurdistan manufacturing companies.

The inclusion of leadership styles, organizational culture, and employee engagement as key variables in the SEM model reflects a multifactorial approach. This acknowledges the complexity of organizational dynamics and provides a more comprehensive understanding of the factors influencing employee engagement. The conceptual model depicted in Figure 1 will serve as the basis for the structural equation model. Hence, the developed hypotheses will be investigated using the provided structural equation model depicted in Figure 1 using the Smart PLS data analysis application.

### **3.2 Reliability and validity tests**

The Cronbach's alpha test was used to examine organizational culture, transformational leadership, supportive leadership, empowering leadership styles and employee engagement reliability. As such, variables with Cronbach's alpha values of at least 70% were held as reliable (Ringle et al., 2020). Additional reliability tests were performed using the composite reliability test accepting variables with composite reliability values of at least 70% were held as reliable (Ringle et al., 2020). Discriminant validity, which demonstrates that two tests that aren't meant to be related are indeed unrelated (Rönkkö & Cho, 2022), was used to assess the validity of the variables. Using the Fornell and Larcker criterion, this was achieved. The Average Variance Explained (AVE) was used in relation to convergent validity, which verifies that two tests that are meant to be connected to one another are in fact related (Ringle et al., 2020). The acceptance of variables with AVE values greater than 0.50 was deemed legitimate based on the results of the AVE test (Dos Santos & Cirillo, 2023).

### **3.3 Model fitness tests**

Standardized Root Mean Square Residual (SRMR) was used to assess the estimated model's absolute fit; values of SRMR less than 0.08 were considered to indicate a suitable fit (Sarstedt et al., 2020). The model's fitness was further evaluated using a substantial Chi-square and a Normed Fit Index (NFI) value of higher than 0.90, which indicates a satisfactory fit (Sarstedt et al., 2020). Proposals to apply D\_G and D\_ULS

criteria were also used, in accordance with Ringle, Da Silva, and Bido (2015), to have a better understanding of the model's fitness.

### **3.4 Population and sampling procedures**

The study population comprised manufacturing 35 reputable companies in Kurdistan. Focusing on this specific population allows for a targeted examination of organizational dynamics within the manufacturing sector, enhancing the study's applicability to the region's industrial context. Understanding the organizational culture and leadership styles in Kurdistan manufacturing companies can have practical implications for enhancing employee engagement and overall organizational performance. The study's findings may inform targeted interventions and strategies that align with the unique characteristics of the study population.

The choice of the study population and sample size was driven by the desire to provide insights that are contextually relevant to Kurdistan manufacturing companies. The participants included individuals representing various roles within the Kurdistan manufacturing companies. Among such respondents were top-level executives and leaders (CEOs, top-level executives, leaders and general employees) within the manufacturing companies. These individuals play a crucial role in shaping the organizational culture and influencing leadership styles. Their perspectives on organizational values, goals, and leadership practices are vital for understanding the higher-level dynamics that impact employee engagement.

A cluster sample of 35 reputable companies was randomly selected across Erbil to ensure that the study broadly covers diverse companies and that their knowledge deeply enriches the study's insights. Given that four specific individuals (CEOs, top-level executives, leaders and general employees) were selected within the manufacturing companies, a convenient sample of 140 participants was selected. As a result, 140 questionnaires were distributed to each of the 35 manufacturing companies in Erbil. Therefore, a total of 140 participants were the study's intended focus.

### **3.5 Data collection**

In order to collect the required, questionnaires were distributed and collected by hand to each of the selected 35 manufacturing companies in Erbil. The entire questionnaire distribution and collection process took one and a month from the 1<sup>st</sup> of October to the 31<sup>st</sup> of October 2023. The variables were developed using the information provided in prior related studies on leadership styles and employee engagement (Gemeda & Lee, 2020; Lee et al., 2019). However, newly developed transformational leadership, supportive leadership, and empowering leadership style constructs were introduced as the study's scientific contribution. Meanwhile, organizational culture constructs were designed using Wahyuningsih et al.'s (2019) analysis of organizational culture with Denison's model approach for international business competitiveness. As a result, 8 transformational leadership, 6 supportive leadership, 6 empowering leadership, 10 organizational culture and 15 employee engagement variable constructs were developed. Both constructs were measured on a 5-point Likert scale with values ranging from 1 (strongly disagree) to 5 (strongly agree).

3 randomly selected participants were selected from a pool of managing directors, chief financial officers, finance managers, internal auditors, financial accountants and financial analysts as part of the focus group. Upon satisfactory responses with a few improvements, the questionnaires were finally distributed to the participants during the period obtained and questionnaires were distributed to participants.

## **4. Results and Discussion**

### **4.1 Demographic analysis**

In this examination, all of the administered 140 questionnaires were collected and comprised 74 male and 46 female respondents. A relatively significant difference between male and female responses was observed, as noted by the reported p-value of 0.032. The p-value of 0.032 indicates that there is a statistically significant difference between how males and females responded to the survey questions. This suggests that gender plays a role in shaping the overall organisational culture of manufacturing companies. It implies that there may be variations in the leadership

styles adopted by male and female managers, as well as differences in how employees are engaged and motivated based on their gender. Further analysis should be conducted to explore these gender-based disparities in more detail.

Unlike academic qualification and experience level whose differences were significantly observed across the employee respondents ( $p\text{-value}=0.000$ ), no employment position and manufacturing sector differences were observed. This implies that regardless of their position or the sector they work in, both male and female employees were equally affected by the influence of gender on organisational culture, leadership styles, and employee engagement practices in manufacturing companies. It is worth noting that academic qualification and experience level played a more significant role in shaping the differences observed among the employee respondents, indicating that these factors had a stronger impact on the organisational dynamics than employment position and manufacturing sector. However, in terms of academic qualifications, Table 1 reveals that the respondents were highly qualified (Bachelor’s degree:  $n=32$ ; Master’s degree:  $n=104$  and PhD degree:  $n=4$ ). This enhanced the study’s ability to draw relevant and robust perspectives as their academic qualifications are tantamount to a comprehensive knowledge of leadership styles, organizational culture and employee engagement. Similar deductions can be made about their experience levels as evidenced by employees with 4-6 years (28.57%), 7-9 years (40.00%), and 10 years and above (17.14%) of experience. Overall, the findings were derived from an analysis of an equal number of CEOs, top-level executives, leaders and general employees equally drawn from chemical, petroleum, mining, pharmaceuticals and other manufacturing companies as shown in Table 1.

**Table 1: Demographic details**

| Variable               | Description       | Frequency  | Percentage | p-value |
|------------------------|-------------------|------------|------------|---------|
| Gender                 | Male              | 74         | 52.86      | 0.032   |
|                        | Female            | 66         | 47.14`     |         |
|                        | <b>Total</b>      | <b>140</b> | <b>100</b> |         |
| Academic qualification | Bachelor’s degree | 32         | 22.86      | 0.00    |
|                        | Master’s degree   | 104        | 74.29      |         |



|                      |                      |            |            |       |
|----------------------|----------------------|------------|------------|-------|
|                      | PhD degree           | 4          | 2.85       |       |
|                      | <b>Total</b>         | <b>140</b> | <b>100</b> |       |
| Years of experience  | Less than 1 year     | 5          | 3.57       | 0.000 |
|                      | 1-3 years            | 15         | 10.71      |       |
|                      | 4-6 years            | 40         | 28.57      |       |
|                      | 7-9 years            | 56         | 40.00      |       |
|                      | 10 years and above   | 24         | 17.14      |       |
|                      | <b>Total</b>         | <b>140</b> | <b>100</b> |       |
| Employment position  | CEOs                 | 35         | 25.00      | 1.00  |
|                      | Top-level executives | 35         | 25.00      |       |
|                      | Leaders              | 35         | 25.00      |       |
|                      | General employees    | 35         | 25.00      |       |
|                      | <b>Total</b>         | <b>140</b> | <b>100</b> |       |
| Manufacturing sector | Chemical             | 28         | 20.00      | 1.00  |
|                      | Petroleum            | 28         | 20.00      |       |
|                      | Mining               | 28         | 20.00      |       |
|                      | Pharmaceuticals      | 28         | 20.00      |       |
|                      | Other                | 28         | 20.00      |       |
|                      | <b>Total</b>         | <b>140</b> | <b>100</b> |       |

#### 4.2 Factor analysis

The study was able to identify the interrelatedness between the organizational culture, employee engagement variable constructions, supportive leadership, empowering leadership, and transformational leadership by using factor analysis. Six transformational leadership, three supportive leadership, three empowering leadership, four organizational culture, and seven employee engagement variable constructs were identified as relevant after using the 0.70 standard (Ringle, Da Silva, and Bido, 2015), as shown in Table 2. Thus, six transformational leadership, three supporting leadership, three empowering leadership, four organizational culture, and seven employee engagement variable constructs were used to estimate the intended structural equation model.

**Table 2:** Factor analysis

| Constructs                         | Loadings |  | Constructs                   | Loadings |
|------------------------------------|----------|--|------------------------------|----------|
| <b>Transformational leadership</b> |          |  | <b>Supportive leadership</b> |          |
| TL1                                | 0.745    |  | SL3                          | 0.713    |
| TL2                                | 0.720    |  | SL 4                         | 0.710    |

|                               |       |  |                              |       |
|-------------------------------|-------|--|------------------------------|-------|
| TL3                           | 0.734 |  | SL5                          | 0.688 |
| TL4                           | 0.700 |  | <b>Empowering leadership</b> |       |
| TL6                           | 0.787 |  | EM5                          | 0.745 |
| TL7                           | 0.785 |  | EM6                          | 0.781 |
|                               |       |  | EM 7                         | 0.727 |
| <b>Organizational culture</b> |       |  | <b>Employee engagement</b>   |       |
| OC3                           | 0.705 |  | EE4                          | 0.662 |
| OC4                           | 0.703 |  | EE7                          | 0.714 |
| OC6                           | 0.682 |  | EE6                          | 0.700 |
| OC7                           | 0.704 |  | EE9                          | 0.691 |
|                               |       |  | EE11                         | 0.722 |
|                               |       |  | EE13                         | 0.695 |
|                               |       |  | EE14                         | 0.733 |

TL=transformational leadership; SL=supportive leadership; EL=empowering leadership, OC=organizational culture and EE= employee engagement.

### 4.3 Validity test

According to Table 3’s results for the Fornell-Larcker Criterion, the diagonal values exceed their underlying values (Rönkkö & Cho, 2022). Consequently, this indicates that discriminant validity was proven. The study then tested the convergent validity and reliability of the variables.

**Table 3:** Fornell-Larcker Criterion

|                                    | IAP   | FRQ   | FP    |
|------------------------------------|-------|-------|-------|
| <b>Transformational leadership</b> | 0.793 |       |       |
| <b>Supportive leadership</b>       | 0.672 | 0.714 |       |
| <b>Empowering leadership</b>       | 0.644 | 0.658 | 0.665 |
| <b>Organizational culture</b>      | 0.591 | 0.602 | 0.612 |
| <b>Employee engagement</b>         | 0.557 | 0.566 | 0.609 |

Table 4 displays AVE values that are higher than the 0.50 cut-off, indicating the establishment of convergent validity (Ringle et al., 2020). In terms of the reliability of the variables, Cronbach’s alpha, rho\_A, and composite reliability values all exceeded the conventional benchmark of 70% (Ringle et al., 2020). This suggests that the variables were very reliable in explaining the mediating role of organizational culture in the relationship between leadership styles and employee engagement.

**Table 4:** Convergent validity and reliability test

|           | <b>AVE</b> | <b>Cronbach's Alpha</b> | <b>rho_A</b> | <b>Composite Reliability</b> |
|-----------|------------|-------------------------|--------------|------------------------------|
| <b>TL</b> | 0.716      | 0.816                   | 0.828        | 0.834                        |
| <b>SL</b> | 0.703      | 0.837                   | 0.852        | 0.857                        |
| <b>EL</b> | 0.709      | 0.823                   | 0.839        | 0.845                        |
| <b>OC</b> | 0.705      | 0.807                   | 0.817        | 0.825                        |
| <b>EE</b> | 0.5707     | 0.811                   | 0.819        | 0.829                        |

TL=transformational leadership; SL=supportive leadership; EL=empowering leadership, OC=organizational culture and EE= employee engagement.

#### 4.4 Model fitness test

It is possible to determine that the model has a reasonable fit using the data in Table 5. This is because the model's fitness was also evaluated using the SRMR value, which is less than 0.08 (Sarstedt et al., 2020), the Chi-square value, which is 29.417\* and significant at 1%, and the NFI value, which is greater than 0.90 and indicates a reasonable fit (Sarstedt et al., 2020). The propositions D\_G and D\_ULS, according to Ringle, Da Silva, and Bido (2015), are bigger than the corresponding confidence interval values, which further indicates the presence of a good fit.

**Table 5:** Model fitness test

|                        | <b>SRMR</b> | <b>NFI</b> | <b>Chi-Square</b> | <b>d_G</b> | <b>d_ULS</b> |
|------------------------|-------------|------------|-------------------|------------|--------------|
| <b>Saturated Model</b> | 0.044       | 0.989      | 29.417*           | 1.596      | 7.894        |
| <b>Estimated Model</b> | 0.044       | 0.989      | 29.417*           | 1.596      | 7.894        |

#### 4.5 Path analysis

Being the main goal of the study, an attempt was made to ascertain organizational culture's mediating effects on the relationships between TL and EE, SL and EE, and EL and EE. Accordingly, Table 6 shows that hypotheses 1 ( $\beta=0.322$ ;  $p=0.000$ ) and 2 ( $\beta=0.549$ ;  $p=0.000$ ) were supported. This indicates that organizational culture lowly and significantly mediate the relationships between TL and EE, and moderately and significantly mediate the relationships between SL and EE. Drawing further, the

findings show that organizational culture does not mediate the relationships between EL and EE ( $\beta=0.565$ ;  $p=0.000$ ). As a result, hypothesis 3 was supported.

**Table 6: Path analysis results**

|                             | Estimate | P Values | Impact        | Hypothesis                     |
|-----------------------------|----------|----------|---------------|--------------------------------|
| <b>Mediating effects</b>    |          |          |               |                                |
| <b>TL -&gt; OC-&gt; EE</b>  | 0.322    | 0.000    | Significant   | H <sub>1</sub> : Supported     |
| <b>SL -&gt; OC-&gt; EE</b>  | 0.549    | 0.000    | Significant   | H <sub>2</sub> : Supported     |
| <b>EL -&gt; OC-&gt; EE</b>  | 0.176    | 0.416    | Insignificant | H <sub>3</sub> : Not supported |
| <b>Direct relationships</b> |          |          |               |                                |
| <b>TL -&gt; EE</b>          | 0.385    | 0.089    | Insignificant | H <sub>4</sub> : Not supported |
| <b>OC -&gt; EE</b>          | 0.565    | 0.067    | Insignificant | H <sub>5</sub> : Not supported |
| <b>EL -&gt; EE</b>          | 0.640    | 0.000    | Significant   | H <sub>6</sub> : Supported     |

TL=transformational leadership; SL=supportive leadership; EL=empowering leadership, OC=organizational culture and EE= employee engagement.

Concerning the direct effects, the provided findings depicted that the adoption of transformational leadership ( $\beta=0.385$ ;  $p=0.089$ ) and improvements in small businesses' organizational culture ( $\beta=0.565$ ;  $p=0.067$ ) styles have no significantly direct positive effects on employee engagement. As a result, hypotheses 4 and 5 were not supported. However, hypothesis 6 was supported ( $\beta=0.640$ ;  $p=0.000$ ) and this portrays that the adoption of empowering leadership styles has a direct and significantly positive effect on employee engagement.

Concerning the direct effects, the provided findings depicted that the adoption of transformational leadership ( $\beta=0.322$ ;  $p=0.000$ ) and supportive leadership ( $\beta=0.549$ ;  $p=0.000$ ) styles has significantly positive effects on employee engagement. As a result, hypotheses 4 and 5 were supported. However, hypothesis 6 was not supported ( $\beta=0.565$ ;  $p=0.000$ ) and this portrays that the adoption of empowering leadership styles has no direct and significantly positive effects on employee engagement.

## Discussion

The study discussions were primarily centered on the need to analyze the mediation role of organizational culture between leadership styles and employee engagement

within Kurdistan manufacturing companies. As a result, the following discussions were made:

Commencing with hypothesis 1, the results showed that organizational culture lowly and significantly mediate the relationships between transformational leadership and employee engagement. Such findings were not uncovered by Abolnasser et al. (2023) and Rezeki, Mardiputera and Wulandari (2023), and this study is the first of its kind to establish such findings within the context of manufacturing companies in Kurdistan. The term “low mediation effect” suggests that the impact of organizational culture in mediating the relationship between transformational leadership and employee engagement is not substantial. Some studies like Jensen, Potočnik and Chaudhry (2020), Para-González, Jiménez-Jiménez and Martínez-Lorente (2018) and Puni et al. (2022) found that transformational leadership has a direct impact on employee engagement. Rezeki, Mardiputera and Wulandari (2023) discovered that transformational leadership affects employee engagement by creating a motivational and supportive environment where individuals feel inspired, recognized, and empowered. Within the context of this study, it can be inferred that changes in organizational culture explain only a small portion of the variance in the relationship between transformational leadership and employee engagement. Significant mediation means that, despite being low, the effect of organizational culture on the relationship between transformational leadership and employee engagement is statistically significant. This indicates that even though the mediation effect is not large, it is still present and can be considered meaningful and reliable. Such findings are in support of Northouse’s (2014) suggestions on leadership concepts and practice concerning the need to adopt additional strategies to reinforce the effectiveness of leadership styles.

Secondly, concerning hypothesis 2, the moderate mediation effect suggests that the impact of organizational culture in mediating the relationship between supportive leadership styles and employee engagement is neither weak nor strong but falls somewhere in the middle. This implies that changes in organizational culture explain a moderate portion of the variance in the relationship between supportive leadership and employee engagement. On the other hand, the significant mediation

indicates that the effect of organizational culture on the relationship between supportive leadership styles and employee engagement is statistically significant. This means that the influence of organizational culture, although moderate, is considered meaningful and reliable from a statistical standpoint. In addition, the moderate mediation suggests that organizational culture is a key factor in translating the positive effects of supportive leadership into enhanced employee engagement. Though not captured by Gameda and Lee (2020), this study's findings that the balance between the direct impact of supportive leadership and the mediating role of organizational culture emphasizes the importance of both factors in achieving positive outcomes. Kossek et al. (2023) established that leaders who prioritize the holistic well-being of their team members, provide individualized attention, and foster open communication contribute to a positive work environment that encourages higher levels of engagement and job satisfaction. Therefore, the findings highlight the need for strategic alignment between leadership behaviours, organizational culture, and employee engagement. Moreover, in support of Northhouse's (2014) propositions, these findings suggest that manufacturing companies should intentionally develop and maintain a culture that complements and enhances the impact of supportive leadership styles on key employee engagement indicators. As noted by Khalid et al. (2012), a supportive leadership style is likely to contribute to a positive work environment, and the mediation by organizational culture underscores the importance of this environment for overall firm success. This suggests that creating a workplace that prioritizes employee well-being and satisfaction can have lasting effects on employee engagement.

Thirdly, as a novel contribution to existing studies, hypothesis 3's finding suggests that, in the context of the study, the direct impact of empowering leadership styles on employee engagement is not statistically significant. Such was not established in other contexts such as Ethiopia and South Korea (Gameda & Lee, 2020). Meanwhile, the absence of a direct positive effect underscores the importance of considering complementary factors. Moreover, the organizational context, including the nature of the business, industry dynamics, and the specific challenges faced by small

businesses, could play a crucial role. As outlined by Northouse (2014), leadership theories suggest that the relationship between leadership styles and employee engagement can be intricate. Therefore, the lack of a direct positive effect may indicate that the influence of empowering leadership is contingent on various contextual factors, and its impact might be realized through more intricate pathways.

## **Conclusion**

The primary aim of the study was to explore and analyze the mediation role of organizational culture between leadership styles and employee engagement within Kurdistan manufacturing companies. Therefore, the study's goal of filling in the gaps and empirical blanks about the scant coverage of the intricate relationships among leadership styles (transformational, supportive and empowering leadership styles) organizational culture, employee engagement and employee engagement was successfully achieved. As a result, the study tackled empirical issues about the lack of agreement regarding these interactive relationships. Consequently, the following deductions were made:

- The findings suggest that solely focusing on transformational leadership might not be sufficient for optimizing employee engagement. In that context, manufacturing companies should consider implementing multifaceted strategies that address both leadership development and the cultivation of a conducive organizational culture.
- The findings highlight the need for strategic alignment between leadership behaviours, organizational culture, and employee engagement. Company managers should intentionally develop and maintain a culture that complements and enhances the impact of supportive leadership styles on key performance indicators.
- Manufacturing companies may need to strategically integrate empowering leadership with other management practices to maximize its positive impact. This could involve aligning leadership styles with organizational goals,

fostering a culture of accountability, and ensuring that employees have the necessary resources to thrive.

### **Practical implications**

- Practically, hypothesis 1's findings suggest that business leaders should be aware that while transformational leadership has a direct impact on employee engagement, the organizational culture plays a role in influencing this relationship. Even though the effect might be small, organizations can enhance their performance by fostering a positive and aligned culture that complements transformational leadership.
- Hypothesis 2's findings practically imply that manufacturing companies can leverage these results by recognizing the significance of cultivating a supportive leadership style while concurrently fostering an organizational culture that aligns with and reinforces the supportive leadership practices. This dual focus may lead to more sustainable improvements in employee engagement.
- Hypothesis 3's findings have practical implications for leadership development in small businesses. Leaders and managers might need training programs that not only focus on empowering leadership but also on how to integrate it effectively within the specific context of their organization.

### **Constraints and Limitations Encountered:**

- The research might have faced limitations concerning the sample size or representation from Kurdistan manufacturing companies. A larger and more diverse sample could enhance the generalizability of findings.
- The study might have encountered challenges related to cross-cultural differences within Kurdistan's diverse manufacturing companies, affecting the interpretation and applicability of findings across various organizational contexts.
- The research design might have limitations in establishing causality and directionality due to the nature of the study's cross-sectional design, hindering a clear understanding of temporal relationships.



**Areas for Future Studies:**

- Future research could employ longitudinal designs to track changes in leadership styles, organizational culture, and employee engagement over time, providing insights into causality and dynamic relationships.
  - Complementing quantitative analyses with qualitative methods like interviews or focus groups could offer a deeper understanding of employees' perceptions and experiences within the organizational context.
  - Investigating the mediation effect of organizational culture in various industries or cultural contexts within Kurdistan could provide a nuanced understanding of how different factors interact in specific settings.
  - Comparative studies between Kurdistan and other regions or countries could shed light on cultural differences' influence on leadership, culture, and engagement dynamics.
  - Exploring additional mediators or moderators that influence the relationship between leadership, organizational culture, and employee engagement could deepen understanding.
- 

**References:**

2. Abolnasser, M. S. A., Abdou, A. H., Hassan, T. H., & Salem, A. E. (2023). Transformational Leadership, Employee Engagement, Job Satisfaction, and Psychological Well-Being among Hotel Employees after the Height of the COVID-19 Pandemic: A Serial Mediation Model. *International Journal of Environmental Research and Public Health*, 20(4), 3609.
3. Arena, M., Hines, S., & Golden III, J. (2023). The three Cs for cultivating organizational culture in a hybrid world. *Organizational Dynamics*, 52(1), 100958.
4. Boccoli, G., Gastaldi, L., & Corso, M. (2023). The evolution of employee engagement: Towards a social and contextual construct for balancing individual performance and wellbeing dynamically. *International Journal of Management Reviews*, 25(1), 75-98.
5. Cook, K. S., Cheshire, C., Rice, E. R., & Nakagawa, S. (2013). Social exchange theory. *Handbook of social psychology*, 61-88.

6. Cropanzano, R., Anthony, E. L., Daniels, S. R., & Hall, A. V. (2017). Social exchange theory: A critical review with theoretical remedies. *Academy of management annals*, 11(1), 479-516.
7. Davis, S. (2023). *Effect of Gender on the Relationship Between Leadership Style and Employee Engagement* (Doctoral dissertation, Walden University).
8. Decuyper, A., & Schaufeli, W. (2020). Leadership and work engagement: Exploring explanatory mechanisms. *German Journal of Human Resource Management*, 34(1), 69-95.
9. Gameda, H. K., & Lee, J. (2020). Leadership styles, work engagement and outcomes among information and communications technology professionals: A cross-national study. *Heliyon*, 6(4).
10. Hsu, H. M., Chang, H. T., Liou, J. W., Cheng, Y. C., & Miao, M. C. (2023). Empowering leadership and team innovation: The mediating effects of team processes and team engagement. *German Journal of Human Resource Management*, 37(1), 23-49.
11. Jensen, M., Potočník, K., & Chaudhry, S. (2020). A mixed-methods study of CEO transformational leadership and firm performance. *European Management Journal*, 38(6), 836-845.
12. Khalid, A., Zafar, A., Zafar, M. A., Saqib, L., & Mushtaq, R. (2012). Role of supportive leadership as a moderator between job stress and job performance. *Information Management and Business Review*, 4(9), 487-495.
13. Kossek, E. E., Perrigino, M. B., Russo, M., & Morandin, G. (2023). Missed Connections Between the Leadership and Work–Life Fields: Work–Life Supportive Leadership for a Dual Agenda. *Academy of Management Annals*, 17(1), 181-217.
14. Lee, M. C. C., Idris, M. A., & Tuckey, M. (2019). Supervisory coaching and performance feedback as mediators of the relationships between leadership styles, work engagement, and turnover intention. *Human Resource Development International*, 22(3), 257-282.
15. Ningsih, M. A., Wijaya, Y. K., Muntahari, S., & Damayanti, N. (2023). The Impact of Transformational Leadership on Employee Satisfaction, Employee Performance, and Employee Engagement: The Insurance and Pension Fund Service. *International Journal Of Applied Business Research*, 88-100.
16. Northouse, P. G. (2014). *Introduction to leadership: Concepts and practice*. Sage.
17. Othman, A. K., Hamzah, M. I., Abas, M. K., & Zakuan, N. M. (2017). The influence of leadership styles on employee engagement: The moderating effect of

- communication styles. *International Journal of Advanced and applied scienceS*, 4(3), 107-116.
18. Para-González, L., Jiménez-Jiménez, D., & Martínez-Lorente, A. R. (2018). Exploring the mediating effects between transformational leadership and organizational performance. *Employee Relations*, 40(2), 412-432.
  19. Popli, S., & Rizvi, I. A. (2016). Drivers of employee engagement: The role of leadership style. *Global Business Review*, 17(4), 965-979.
  20. Prabhu, M. H., & Srivastava, A. K. (2023). Modeling transformational leadership, supply chain collaboration and firm performance—a case of India. *International Journal of Emerging Markets*.
  21. Puni, A., Hilton, S. K., Mohammed, I., & Korankye, E. S. (2022). The mediating role of innovative climate on the relationship between transformational leadership and firm performance in developing countries: the case of Ghana. *Leadership & Organization Development Journal*, 43(3), 404-421.
  22. Rezeki, F., Mardiputera, H. M., & Wulandari, A. (2023). High and Low Levels of Employee Performance: The Role of Transformational Leadership Styles and Employee Engagement. *Asian Journal of Management, Entrepreneurship and Social Science*, 3(03), 568-584.
  23. Ringle, C. M., Sarstedt, M., Mitchell, R., & Gudergan, S. P. (2020). Partial least squares structural equation modeling in HRM research. *The International Journal of Human Resource Management*, 31(12), 1617-1643.
  24. Ringle, C., Da Silva, D., & Bido, D. (2015). Structural equation modeling with the SmartPLS. Bido, D., da Silva, D., & Ringle, C.(2014). *Structural Equation Modeling with the Smartpls. Brazilian Journal Of Marketing*, 13(2).
  25. Sarstedt, M., Hair, J. F., Pick, M., Liengaard, B. D., Radomir, L., & Ringle, C. M. (2022). Progress in partial least squares structural equation modeling use in marketing research in the last decade. *Psychology & Marketing*, 39(5), 1035-1064.
  26. Susanto, P. C., Agusinta, L., Setyawati, A., & Panjaitan, A. R. P. (2023). Determinant Organization Commitment and Development Organization: Analysis Servant Leadership, Transformational Leadership, Transactional Leadership. *Formosa Journal of Multidisciplinary Research*, 2(3), 541-558.
  27. Tiyisela, M. (2023). Exploring Psychological Safety, Supportive Leadership Behaviour And Voice Behaviour On Employee Engagement In The South African Mining Sector.

28. Wahyuningsih, S. H., Sudiro, A., Troena, E. A., & Irawanto, D. (2019). Analysis of organizational culture with Denison's model approach for international business competitiveness. *Problems and perspectives in management*, (17, Iss. 1), 142-151.
29. Wen, J., Huang, S. S., & Teo, S. (2023). Effect of empowering leadership on work engagement via psychological empowerment: Moderation of cultural orientation. *Journal of Hospitality and Tourism Management*, 54, 88-97.

رۆلی ناوڤزیوانی که لتور پیکراوهیی له په یوهندی نیوان شیوازهکانی  
سه رکردایه تی و به شداریکردنی کارمه ندان: لیکۆلینه وهیه کی SEM له سه ر  
کۆمپانیاکانی به ره مهینانی کوردستان

**پوخته:**

ئامانجی سه ره کی توژیینه وه که بریتیی له لیکۆلینه وه و شیکردنه وهی رۆلی نیوه ندگیری کولتوری پیکراوهیی له نیوان شیوازهکانی سه رکردایه تی و به شداریکردنی کارمه ندان له ناو کۆمپانیاکانی به ره مهینانی کوردستاندا. له کاتیکدا لیکۆلینه وهیه کی به فراوان له سه ر شیوازهکانی سه رکردایه تی، به شداریکردنی کارمه ند و کولتوری پیکراوهیی به شیوهیه کی سه ره خو هیه، که لینیکی بهرچاو هیه له تیگه یشتنیکی گشتگیر له کاریگه ری نیوه ندگیری کولتوری پیکراوهیی له په یوهندی نیوان شیوازهکانی سه رکردایه تی و به شداریکردنی کارمه ند. له ئه نجامدا مۆدیلیکی هاوکیشه ی پیکهاته یی به به کارهینانی ۱۴۰ وه لām که له پۆلیکی کۆمپانیاکانی به ره مهینان له هه ولیری کوردستان کۆکرا بوونه وه، خه ملیندرا. ئه نجامه کانی توژیینه وه که ده ریخست که کولتوری پیکراوهیی به شیوهیه کی نزم و بهرچاو نیوه ندگیری په یوهندی نیوان سه رکردایه تی گۆرانکاری و به شداریکردنی کارمه ند ده کات، و به شیوهیه کی مامناوه ند و بهرچاو نیوه ندگیری په یوهندی نیوان سه رکردایه تی پشته یوانی و به شداریکردنی کارمه ند ده کات. زیاتر ئاشکرا بوو که کولتوری پیکراوهیی ناوڤزیوانی په یوهندی نیوان به هیزکردنی سه رکردایه تی و به شداریکردنی کارمه ندان نییه. توژیینه وه که پیشیاری ئه وه ده کات که کۆمپانیاکانی به ره مهینان بیر له جیبه جیکردنی ستراتیژی فره لایه نه بکه نه وه که هه م په ره پیدانی سه رکردایه تی و هه م چاندنی کولتوریکی پیکراوهیی له بار ده گرێته وه.