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A Study of Organizational Culture's Effect on Stress in Automotive Workplaces

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Abstract

In this study, the impact of organisational culture on stress in automotive workplaces, with a particular emphasis on the intricate relationships between the industry's hierarchical structure, employee recognition, communication techniques, and leadership styles. The study offers a comprehensive understanding of the impact of cultural dynamics on the well-being of employees by integrating quantitative and qualitative data through a mixed-methods approach. The findings indicate that tension is elevated in rigid and hierarchical environments, while it is diminished in supportive and inclusive cultures. The importance of cultivating work-life balance, trust, and openness to mitigate workplace stress. It provides feasible strategies for establishing more conducive work environments in the automotive industry. These insights are intended to improve organisational success, productivity, and employee satisfaction.

Keywords: Organizational Culture, Workplace Stress, Leadership Styles, Employee Recognition, Automotive Industry

1. Introduction

1.1 Background of Stress in the Automotive Industry

Manufacturing, engineering, sales, and service activities are all integral components of the automotive industry, which is both dynamic and diverse [1]. Despite its status as a fundamental component of economic expansion and scientific advancement, this discipline necessitates exceptional performance under pressure, precision in execution, and the capacity to adjust to continual changes [2]. Workers frequently experience stress because of these factors, which contributes to their overall well-being, physical and mental health, and job satisfaction [3].

Stress is generated by both internal and external factors in the automotive industry. Production line employees are subjected to repetitious tasks, physically taxing activities, and strict internal schedule compliance [4]. Tension becomes a daily issue due to the nature of assembly labour and schedule constraints. Similarly, supervisors and white-collar workers are subjected to comparable pressure to achieve operational and financial objectives. This strain is frequently exacerbated by the necessity of overseeing intricate supply chains and diverse teams. Businesses must remain at the vanguard of their respective industries considering international competition and advancements in automotive technology, including electric and driverless vehicles [5]. The

acquisition of new skills and the adaptation to emergent trends are anticipated to result in an increase in employee stress and workload [6]. In addition, stress is exacerbated by economic fluctuations and supply chain disruptions, such as the scarcity of semiconductors, as businesses endeavour to increase output with limited resources. Unmanaged stress can manifest in various ways, including employee turnover, poor job performance, and elevated absenteeism [7]. This results in decreased productivity, increased recruitment costs, and reduced working morale for organisations. Consequently, it is not only a strategic imperative for organisations to preserve their competitive edge, but it is also a matter of employee well-being to comprehend and mitigate tension in automotive workplaces [8].

1.2 Importance of Organizational Culture in Shaping Employee Experience

The basis of any organisation is its organisational culture, which encompasses shared values, customs, and behaviours that influence behaviour [9]. Culture has the potential to either exacerbate or alleviate the issue when tension is prevalent in the automotive industry. Providing employees with the resources, encouragement, and support necessary to flourish, a healthy corporate culture functions as a stress-reducing mechanism. On the other hand, a culture that is noxious or misaligned can exacerbate stress, resulting in dissatisfaction and fatigue. Communication is one of the most critical components of corporate culture. Open and transparent communication facilitates the development of trust and employees' sense of value. When executives establish clear expectations and communicate effectively, employees are more likely to experience a sense of empowerment and less anxiety [10]. However, workers may experience feelings of anxiety and uncertainty regarding their responsibilities and duties because of inadequate feedback and ambiguous communication.

There is yet another critical factor to consider: leadership style. A work environment that is conducive to inclusivity is fostered by executives who are empathetic and prioritise employee perspectives [11]. This could effectively mitigate tension, particularly in industries that are notoriously high stress, such as the automobile manufacturing sector [12]. In contrast, employees may experience feelings of alienation and resentment when authoritarian leadership styles prioritise productivity over their well-being [13]. Furthermore, stress management is significantly influenced by the inherent adaptability and recognition of organisational culture [14]. Employees are afforded the opportunity to effectively manage their personal and professional responsibilities through policies that prioritise work-life balance, such as flexible scheduling or remote work [15]. By cultivating a sense of appreciation and belonging, tension can be mitigated by consistently acknowledging the contributions of employees [16]. Cultivating a culture that is adaptable and supportive can significantly enhance the work experience in the automobile industry, where organisational structures are frequently hierarchical and inflexible [17]. A culture that is well-aligned is advantageous to the organisation, as it reduces tension and enhances engagement, productivity, and work satisfaction.

2. Literature Review

Ahmad et.al (2024) Global workplace tension existed. Many university professors were stressed due to their extra duties. The study examined occupational factors that caused stress among university teachers. The issue was investigated through a qualitative case study. Semi-structured interviews with twenty university instructors were conducted using purposive sampling. The obtained data were analyzed using thematic analysis. A growing workload, workspace issues, job stability concerns, promotion delays, and workplace culture all contributed to academic stress among university faculty, according to the study. Providing professional development opportunities and fostering a healthy work environment reduced workplace anxiety among university academics.

Rasool et.al (2021) investigated the influence of a toxic working environment (TWE) on employee engagement (EE) by employing the theories of conservation of resources and organisational support. The findings indicated that TWE detrimentally impacted EE through the mechanisms of employee well-being (EW) and organisational support (OS), both directly and indirectly. TWE reduced engagement by promoting tension, fatigue, and anxiety. OS and EW served as intermediaries in the relationship, and their presence enhanced engagement. Greater engagement and a sense of belonging were demonstrated by employees who perceived their organisation as supportive and appreciative.

Azeem et.al (2021) Competitive advantage, organisational innovation, information exchange, and culture were empirically examined in this study. PLS-SEM verified and investigated the hypothesised linkages using data from 294 industry managers. Organisational innovation, information sharing, and culture were found to enhance competitive advantage. Organisational culture enabled employees to share knowledge and creativity, exposing them to high-level business procedures that helped them acquire sophisticated manufacturing capabilities. This study demonstrated that organisational culture was crucial to corporate operational success. Additionally, organisational innovation and knowledge exchange were identified as essential contributors to competitive advantage.

Omair et.al (2019) A balance between technology and human input was essential for achieving efficient production, underscoring the critical role that laborers played in the quality of the final product. The productivity and stress levels of employees were significantly influenced by factors such as burden, physical conditions, and work schedules, which, in turn, affected the quality and cost of output. This research emphasized the concealed expenses of employee tension, connecting economic advantages to social enhancements. The study enhanced production planning by measuring the effects of stress and applying sequential quadratic programming, illustrated through a numerical example and sensitivity analysis. Providing valuable managerial insights for long-term operations, the results underscored the significance of safety culture and ergonomics in achieving effective production.

Zawawi et.al (2019) discussed the success of an institution was contingent upon organisational commitment, which was a critical consequence of organisational behaviour. This research investigated the impact of organisational culture and leadership philosophies on the level of commitment of 155 participants in the automotive components sector of Indonesia. Tools that were both valid and dependable were implemented to assess organisational culture (OCu), organisational commitment (OCo), and leadership styles (Ls). These discoveries emphasised the critical role that culture and leadership played in fostering employee commitment, which in turn facilitated the development of policies that increased productivity.

Uysal et.al (2019) examined whether workplace stress affected job satisfaction and employees' views of a toxic supervisor, which contributed to the strong association between these two variables. It also sought to determine if toxic leadership moderated the relationship. Suggestions were made to improve employee well-being. Data were collected from 124 workers for the study. The results revealed a strong link between job stress and job satisfaction. Multiple regression analysis showed that the impression of a toxic leader partially moderated the relationship between job stress and job satisfaction.

Ma et.al (2019) examined how workplace IT use and individual-level cultural factors, such as power distance and masculinity, affected technostress. Data from 485 Chinese employees were used to evaluate the model using structural equation modeling. The results showed that IT use for work was a factor in technostress, employees with high power distance and masculinity experienced higher levels of technostress, the impact of IT use on technostress was greater for

these employees, and employees with above-average power distance and masculinity culture were the main contributors.

3. Methodology

3.1 Research Design

This study employed a mixed-methods approach to conduct a comprehensive examination of the correlation between occupational stress and organisational culture in the automobile industry. The study successfully documented quantifiable trends and detailed personal experiences by integrating quantitative and qualitative methodologies. The quantitative data was collected through surveys, and the findings offered statistically significant insights into stress levels and corporate culture perceptions. In addition, qualitative data was collected through semi-structured interviews and focus groups, which provided a more sophisticated comprehension of the ethos of the workplace and the daily experiences of workers. This methodology that was integrated guaranteed a comprehensive comprehension of the issue by establishing a balance between the breadth of quantitative data and the depth of qualitative insights. All data collection instruments were pilot-tested and enhanced to enhance their clarity and relevance, thereby enhancing their reliability. This meticulous design established a well-defined framework for assessing the intricate nature of corporate culture and its impact on stress.

3.2 Sample

The study ensured that the results accurately represented the diverse struggles and experiences of a diverse range of positions in the automobile sector. The organisational hierarchy's numerous dynamics were explicitly represented by employees from sales, management, and production. The stratified sampling technique was employed to divide participants according to their positions and responsibilities in order to capture the distinctive pressures experienced by various employee groups. For example, managers are accountable for the attainment of organisational objectives and are frequently compelled to make decisions, while production workers typically perform repetitive tasks and endure physical strain. Salespeople are frequently held accountable for attaining high performance objectives within a limited timeframe, which provides them with a unique perspective. As a result of this diverse sample approach, the investigation was capable of offering a comprehensive comprehension of occupational stress in a variety of automotive sector settings and positions.

3.3 Data Collection Tools

The study employed a combination of surveys and qualitative interviews to collect data on stress and organisational culture. The quantitative surveys comprised a stress assessment instrument that was based on the Perceived Stress Scale (PSS) and a customised questionnaire that was designed to assess organisational culture components, including leadership, communication, and recognition. The questionnaires were disseminated in a manner that was comprehensible to workers with varying levels of experience and work schedules. Focus groups and semi-structured interviews were implemented for the qualitative component. The focus groups and interviews fostered candid discussion and group insights on workplace culture and stress, while the interviews encouraged participants to disclose their personal experiences and thoughts in detail. These instruments were meticulously engineered to function in conjunction, with qualitative data providing a more profound understanding and context and quantitative data identifying trends.

3.4 Data Analysis

The data that was collected was analysed using both qualitative and quantitative methods. Descriptive statistics were employed to describe significant trends in organisational culture and tension, after quantitative survey data was evaluated using statistical software. In order to identify the specific elements that substantially influenced employee well-being, inferential statistics, such

as regression and correlation analysis, were employed to investigate the connections between stress levels and cultural characteristics. The qualitative data collected from interviews and focus groups was subjected to transcription and theme analysis. This necessitated the classification of the data to identify recurring themes, including communication issues, leadership approaches, and work-life balance. These themes offered a plethora of insights into the opinions and experiences of workers. The qualitative insights provided the quantitative results with depth and perspective, while the results from both approaches were combined to provide a comprehensive study. This comprehensive approach enabled the inquiry to provide practical suggestions for enhancing corporate culture and mitigating stress.

Hypothesis

H1: There is no association between demographic variables and Spiritual leadership.
H1 (a): There is association between gender and Spiritual leadership.
H1 (b): There is association between age and Spiritual leadership.
H1(c): There is association between designation and Spiritual leadership.

4. Result & Discussion

The analysis of the collected data reveals significant insights into the relationship between organizational culture and workplace stress in the automotive industry. The quantitative findings highlight clear correlations between specific cultural dimensions—such as leadership style, communication practices, and employee recognition—and stress levels. Employees working in supportive and inclusive cultures reported lower levels of stress, whereas those in hierarchical and rigid environments experienced heightened stress. The qualitative data provided deeper context to these trends, illustrating how cultural practices influence daily experiences and perceptions. Themes such as transparency, trust, work-life balance, and the role of recognition emerged prominently, shedding light on both the challenges employees face and the strategies they use to cope with stress. Together, these findings underscore the pivotal role of organizational culture in shaping employee well-being and offer actionable insights for fostering healthier workplace environments.

Table 1 Demographic Variables and Emotional Intelligence: Chi-square analysis

Demographic Variables	Low emotional intelligence	High emotional intelligence	Total	Chi-square	Sig. Value	Phi and Cramer's V	Sig. Value
Gender							

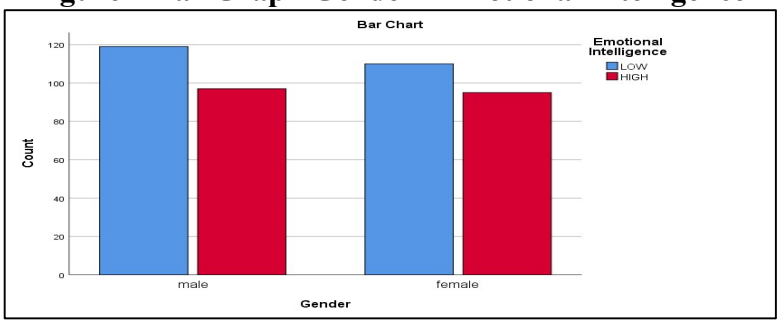
Male	119	97	216				
% within Gender	55%	45%	100%	0.087	0.768	0.014	0.768
Female	110	95	205				
% within Gender	54%	46%	100%				
Total	229	192	421				
% within Gender	54%	46%	100%				
Age							
25-30 years	42	53	95				
% within age	44%	56%	100%	5.963	0.113	0.119	0.113
31-35 years	61	52	113				
% within age	54%	46%	100%				
36-	6	4	1				

40 years	4	3	06				
% within age	59%	41%	100%				
>40 years	64	43	107				
% within age	60%	40%	100%				
Total	229	192	421				
% within age	54%	46%	100%				
Designation							
Executive	78	77	155	7.743	0.05*	0.136	0.05*
% within Designation	50%	50%	100%				
Supervisor	99	68	167				
% within Designation	59	41%	100%				
M	4	4	9				

anager	6	7	3				
% within Designation	50%	50%	100%				
Senior Management	5	0	5				
% within Designation	100%	0%	100%				
Total	228	192	421				
% within Designation	45%	55.0%	100%				

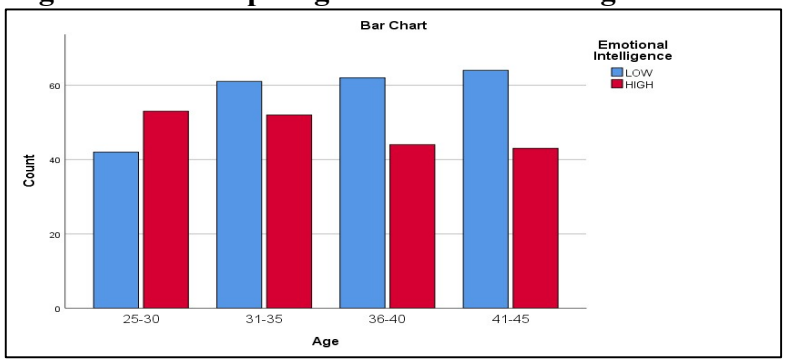
*Significant at 10 percent level; **significant at 5 percent level. Source Authors Calculations

Figure 1 Bar Graph Gender* Emotional Intelligence



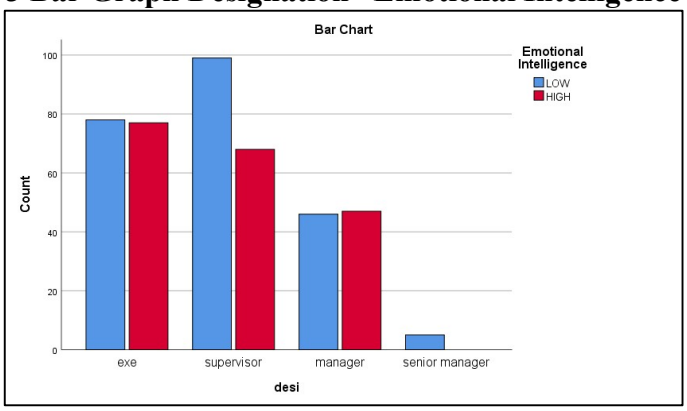
Source Author's Calculation

Figure 2 Bar Graph Age* Emotional Intelligence



Source Author's Calculation

Figure 3 Bar Graph Designation* Emotional Intelligence



Source Author's Calculation

Table 1 indicates that men exhibit higher emotional intelligence than females. The findings indicate that within the gender group, 55 percent of men exhibit a high degree of emotional intelligence, whereas 45 percent of males have a low level of emotional intelligence. Given that the square value is 0.087 and the p-value is 0.768, the data does not provide evidence for the alternative hypothesis (H1) that there is a link between gender and emotional intelligence. In addition, the phi statistic of 0.014 with a p-value of 0.768 indicates that there is no significant positive correlation between gender and emotional intelligence. A Chi-square value of 5.963 and a p-value of 0.113 show that the relationship between age and emotional intelligence is not statistically significant. Therefore, the alternative hypothesis H1 (b) is not supported. The phi statistic of 0.119 and the p-value of 0.113 indicate that there is a statistically insignificant but positive correlation between age and emotional intelligence. The Chi-square value of 7.743 and p-value of 0.05 indicate that the designation of workers is statistically significant. This leads us to accept the H1(c) hypothesis, which concludes that the designation of an employee is connected with their degree of emotional intelligence. At the CEO level, 50 percent of workers have a high degree of emotional intelligence. The phi statistic is 0.136, and the p-value is 0.05. Therefore, we once again accept the null hypothesis (Ho1) that there is no connection between designation and emotional intelligence.

Validation of Key Constructs

This portion of the chapter focuses on the validation of important concepts, such as spiritual leadership, emotional intelligence, organizational culture, and employee stress. These concepts

were borrowed from previous research to verify that the variables being studied are valid and reliable. The research used a modified scale and employed exploratory factor analysis (EFA) to evaluate the presence or absence of common method biases (CMB) for successful validation checks. After that, confirmatory factor analysis (CFA) was used to see if the research had any common method biases by using a shared latent component. In addition, partial least squares structural equation modeling (PLS-SEM) was used to determine the reliability and validity of the measured instruments. The research examined the moderating effects of major demographic and other characteristics on the relationship between spiritual leadership, workplace culture, emotional intelligence, and stress. Furthermore, the assessment of mediation effects was conducted in the last stage of this chapter. The chapter presents and justifies the methods used to address the research challenges.

Common Method Bias: Common method bias refers to a systematic error that may occur in research studies when the same method is used to measure many variables, leading to inflated correlations or relationships between those variables. In the field of behavioral research, a significant concern is the presence of measurement errors. This mistake may undermine the accuracy of conclusions drawn about the correlations between different measures and can greatly impact the empirical data, possibly leading to erroneous conclusions (Campbell and Fiske, 1959). Thus, the first evaluation begins by analyzing the variability that may be attributed to the measuring technique rather than the constructs being studied (Podsakoff, Mackenzie, and Podsakoff, 2003, p. 879). It is necessary to investigate common method variance in cases where data is gathered using self-reported questionnaires and both the predictor and criterion variables are received from the same individual.

Harman's single-factor test: This research used Harman's single-factor test and an unmeasured latent method construct to examine the existence of Common Method Bias (CMB) in the scale validation process. The single-factor test developed by Harman Researchers worldwide use Harman's single-factor test to tackle the problem of common method variation in the scale validation process to begin assessing reliability and validity. The test is conducted by consolidating all variables into a single factor via exploratory factor analysis (EFA). Consequently, the unrotated factor solution is examined to ascertain the variation among the variables. The primary objective of this test is to see whether a single component will emerge as a dominant factor that can explain most of the covariance among the chosen factors in the research. The issue of common method bias affects the sample under investigation if this tendency is dominant and a single component account for more than 50% of the variance in the research. The results show that the first factor that EFA chose only accounted for 24.357 percent of the total variance, which is below the threshold of 50%. This discovery validates that the presence of common technique bias does not pose a significant issue in this study. Tables 4 and 5 show the total variance explained by a single component in unrotated form and the total variance explained using exploratory factor analysis. These tables include information for the general sample as well as for men and women individually. The variance values in these tables are all below the 50 percent threshold.

Table 2 Harman's single factor test results

Sample	Total Variance Explained	KMO	Chi-Square Value	P-value
Overall	24.357	0.835	50455.761	0.000***

***significant at 1 percent level
Source: Author's Calculations

Table 3 Total Variance Explained

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	17.781	24.357	24.357	17.781	24.357	24.357
2	8.	11	35			

	1 2 4	. 1 2 9	. 4 8 6			
3	5 . 0 4 7	6 . 9 1 4	4 2 . 4 0 0			
4	4 . 7 2 0	6 . 4 6 6	4 8 . 8 6 6			
5	4 . 1 7 6	5 . 7 2 0	5 4 . 5 8 6			
6	3 . 9 8 6	5 . 4 6 0	6 0 . 0 4 7			
7	3 . 6 1 0	4 . 9 4 5	6 4 . 9 9 1			
8	3 . 0 1 1	4 . 1 2 5	6 9 . 1 1 6			
9	2 . 8 6 9	3 . 9 3 0	7 3 . 0 4 6			

10	2.722	3.729	76.775			
11	2.674	3.663	80.438			
12	1.734	2.375	82.814			
13	0.730	1.000	83.814			
14	0.604	0.828	84.642			
15	0.566	0.775	85.417			
16	0.563	0.772	86.189			
17	0.48	0.66	86.8			

	4	3	52			
18	0.443	0.6007	87.4599			
19	0.4033	0.5522	88.0111			
20	0.3944	0.5400	88.5500			
21	0.3788	0.5188	89.0688			
22	0.3733	0.5111	89.5800			
23	0.3544	0.4855	90.0665			
24	0.3477	0.4755	90.5411			
25	0.	0.	91			

	3 3 9	4 6 4	. 0 0 5			
2 6	0 . 3 1 8	0 . 4 3 6	9 1 . 4 4 1			
2 7	0 . 3 0 3	0 . 4 1 5	9 1 . 8 5 6			
2 8	0 . 3 0 2	0 . 4 1 3	9 2 . 2 6 9			
2 9	0 . 2 9 2	0 . 3 9 9	9 2 . 6 6 9			
3 0	0 . 2 8 5	0 . 3 9 0	9 3 . 0 5 8			
3 1	0 . 2 6 8	0 . 3 6 7	9 3 . 4 2 6			
3 2	0 . 2 6 2	0 . 3 5 8	9 3 . 7 8 4			

33	0.250	0.342	94.126			
34	0.239	0.328	94.454			
35	0.229	0.314	94.768			
36	0.228	0.313	95.080			
37	0.222	0.304	95.384			
38	0.214	0.294	95.678			
39	0.206	0.282	95.960			
40	0.20	0.27	96.2			

	0	4	34			
41	0.193	0.2644	96.4988			
42	0.1800	0.2477	96.7455			
43	0.1774	0.2399	96.9844			
44	0.1733	0.2337	97.2211			
45	0.1667	0.2299	97.4499			
46	0.1622	0.2222	97.6711			
47	0.1522	0.2088	97.8799			
48	0.	0.	98			

	1 4 7	2 0 2	. 0 8 1			
4 9	0 . 1 4 6	0 . 2 0 0	9 8 . 2 8 2			
5 0	0 . 1 3 8	0 . 1 8 9	9 8 . 4 7 0			
5 1	0 . 1 2 8	0 . 1 7 5	9 8 . 6 4 5			
5 2	0 . 1 1 8	0 . 1 6 2	9 8 . 8 0 7			
5 3	0 . 1 1 7	0 . 1 6 0	9 8 . 9 6 7			
5 4	0 . 1 0 9	0 . 1 4 9	9 9 . 1 1 6			
5 5	0 . 1 0 6	0 . 1 4 5	9 9 . 2 6 1			

56	0.101	0.139	99.3999			
57	0.086	0.117	99.517			
58	0.081	0.111	99.628			
59	0.079	0.108	99.736			
60	0.071	0.097	99.833			
61	0.038	0.052	99.885			
62	0.018	0.024	99.910			
63	0.01	0.02	99.9			

	6	2	31			
64	0.015	0.020	99.952			
65	0.010	0.014	99.966			
66	0.008	0.011	99.976			
67	0.007	0.009	99.985			
68	0.004	0.006	99.991			
69	0.002	0.003	99.995			
70	0.002	0.003	99.997			
71	0.	0.	99			

	0 0 1	0 0 2	. 9 9 9			
7 2	0 . 0 0 0	0 . 0 0 1	1 0 0 . 0 0 0			
7 3	3 . 9 9 0	5 . 4 6 6	1 0 0 . 0 0 0			
Extraction Method: Principal Component Analysis.						

Source: Author's Calculations

Psychometric Checks

This research measured the effects of spiritual leadership and emotional intelligence on organizational culture and the stress levels of employees in the automotive industry using a customized questionnaire consisting of 73 questions and four variables. Psychometric assessments are evaluated by assessing the reliability and validity of the measurement model according to the criteria established by Hair Jr., Black, Babin, Anderson, and Tatham (2010). The psychometric tests were examined using Partial Least Square Structural Equation Modeling (PLS-SEM) in SmartPLS Software version 4.0 (Henseler and Dijkstra, 2017). The decision to use PLS-SEM instead of covariance-based structural equation modeling was based on the exploratory nature of the study, where the theoretical framework is less defined. The primary objective of the research is to predict and explain the important target constructs. In addition, the variables were used as composite constructs, which consist of both reflecting and formative elements. Therefore, it was necessary to employ partial least squares (PLS)-based structural equation modeling (SEM) rather than covariance-based SEM, which is only suitable for reflective constructs . Furthermore, partial least squares (PLS)-based structural equation modeling (SEM) is capable of analyzing intricate cause-and-effect structural models and can effectively manage small sample sizes as well. In addition, partial least squares (PLS)-based structural equation modeling (SEM) is referred to as soft modeling due to its great level of flexibility in accepting distributional assumptions.

Measures of reliability

Psychometrics categorizes reliability as the degree of general consistency in a measure, which is considered to be present when it consistently yields comparable findings in stable settings. It is necessary to assess the reliability of the measuring instrument, ensuring that the underlying concepts consistently provide identical findings under comparable circumstances. Reliability refers to the degree of consistency and repeatability shown by an instrument when producing the same findings over several trials. Various tests may evaluate the reliability of an instrument, but the most often used metric is Cronbach's alpha (α) for inter-item consistency reliability

(Cronbach, 1951; Nunnally, 1978). Cronbach's alpha (α) is the most appropriate metric to assess the internal consistency and reliability of Likert-type scales. The alpha (α) coefficient spans from 0 to 1, and better internal reliabilities of the items are noticed when the highest value is closer to 1. The seminal works conducted by Nunnally in 1978 and Nunnally and Bernstein in 1994 assert that the Cronbach's reliability coefficients for all variables must be above the minimal threshold of 0.70. Optimally, Cronbach's alpha (α) should be 0.80 for the recognized constructs, whereas any value beyond 0.90 is undesirable in the measurement models. The mathematical formula for Cronbach's alpha is:

$$\alpha_{standardized} = \frac{K \cdot \bar{r}}{(1 + (K-1) \cdot \bar{r})}$$

In the aforementioned formula, r-bar represents the average correlation between all pairs of variables, and K is the number of variables under consideration. Furthermore, it is essential to ensure that the composite reliability (CR) exceeds the threshold value of 0.70 and is deemed sufficient when using structural equation modeling (SEM) in the research (Werts *et al..,* 1978). In research that uses PLS-SEM, internal consistency reliability is often assessed using Joreskog's (1971) composite reliability Pc. Therefore, we have employed the same measure in our investigation. Cronbach's alpha (α) represents the minimum level of internal consistency, whereas the composite reliability Pc represents the maximum level of internal consistency. In addition, Dijkstra-Henseler's rho Pa is used to establish the composite reliability of reflective constructions with many indicators (Dijkstra and Henseler, 2015b). Table 6 displays the three values of the corresponding parameters that exceeded the required acceptable criteria, thereby demonstrating sufficient reliability.

Table 4 Reliability Measures

Constructs	Dijkstra-Henseler's rho (ρA)	Jöreskog's rho (ρc)	Cronbach's alpha(α)
Alove	0.957	0.942	0.928
Hope	0.888	0.871	0.832
Meaning	-4.997	0.124	0.864
Mship	0.959	0.939	0.923
OEA	0.966	0.963	0.950
OrgCom	0.962	0.967	0.959
Organization Culture	0.951	0.951	0.945
Prod	0.930	0.946	0.929
ROE	0.977	0.983	0.977
SEA	0.958	0.969	0.957
Stress	0.982	0.985	0.982
UOE	1.188	0.874	0.905
Vision	0.963	0.965	0.955

Note: Alove- Altruistic Love; Mship-Membership; OEA- Others' emotion appraisal; Prod-Productivity; ROE- Regulation of emotion; SEA- Self-emotion appraisal; UOE- Use of emotion

Source: Author's Calculations

Moreover, indicator loadings were analyzed in reflective constructs to determine the indicator reliabilities. All outer loadings were found to be 0.70 and above, which explained more than 50% of the indicators' variation and validated the scale. Evaluation Metrics The subsequent phase involves establishing the questionnaire's validity, which was accomplished via the establishment of four distinct sorts of validities. Validity of the Content

To ensure content validity, a comprehensive literature analysis was done to identify any research gaps and accurately define the variables in the questionnaire. The research used existing theories to formulate the constructs, which were then used to create the questionnaire. The questionnaire underwent validation by a panel of specialists, including organization owners, industry experts, and academics. Their purpose was to examine the variables and suggest any required adjustments to enhance the comprehensibility of the variables for the respondents. Consequently, the revised questionnaire was used for the pilot research with the intention of subsequently using it as the definitive form in the main investigation.

Convergent validity refers to the extent to which several measures of the same construct are positively related to each other. In this research, all variables and their statements are both reflective and formative in character. So, the right steps were taken to show convergent validity by using the Average Variance Extracted (AVE) method on constructs that were evaluated reflectively. Convergent validity refers to the extent to which several things inside a concept are theoretically expected to be related and are in accord (Hair, Hult, Ringle, and Sarstedt, 2017). The validity is largely assessed using the average variance extracted (AVE) for all the items related to each construct. It is computed as the average of the squared loadings for all variables linked to a construct. The AVE must be above the acceptable threshold of 0.50 on average, indicating that a concept accounts for over 50 percent of the variation in its components. Following Hair *et al.*.'s (2010, 2013) advice, a full analysis was done on factor loadings, average variance extracted (AVE), and composite reliability (CR) to make sure the measurement model was valid across all cases. It is suggested that factor loadings should exceed 0.50, AVE should be higher than 0.50, and CR should be greater than 0.70. Nevertheless, the research allows for outer loadings that are equal to or larger than 0.40, provided that the total of loading scores yields an average variance extracted (AVE) higher than 0.50 (Hulland, 1999). Table 5 displays the Average Variance Extracted (AVE) values, which were above 0.50, and the Composite Reliability (CR) scores, which were above 0.70. In addition, all factor loadings were determined to exceed the threshold levels as specified by the established benchmarks in prominent research studies. The term "construct" refers to a concept or idea that is created or formed. The factor loadings for the meaning variable are below.701, while the average variance extracted (AVE) is similarly below.50. However, the composite reliability exceeds the criterion of 70.

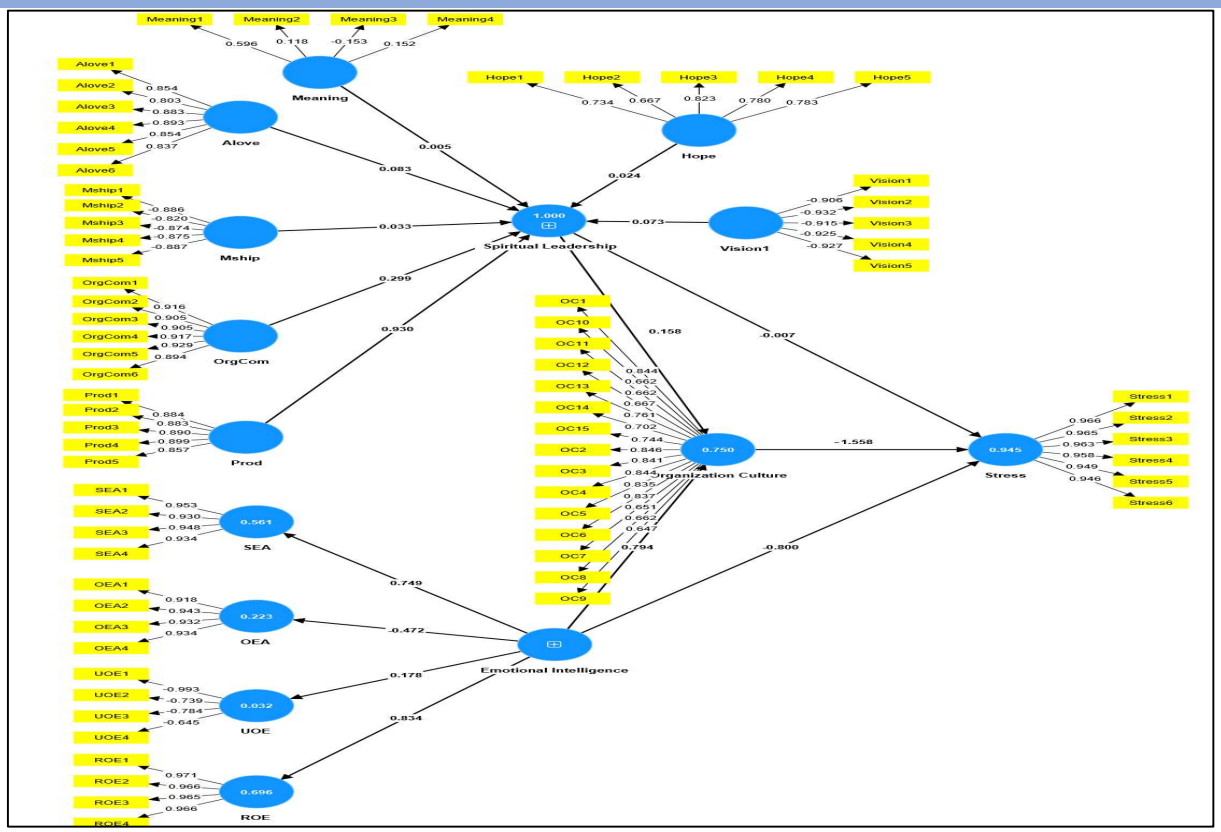
Table 5 Convergent Validity

Measurement Items	Standardized Factor Loadings	AVE	CR
Alove1	0.854	0.73	0.903
Alove2	0.803		
Alove3	0.883		

Alove4	0.893		
Alove5	0.854		
Alove6	0.837		
Hope1	0.734	0.576	0.94
Hope2	0.667		
Hope3	0.823		
Hope4	0.780		
Hope5	0.783		
Meaning1	0.596	0.104	0.902
Meaning2	0.118		
Meaning3	-0.153		
Meaning4	0.152		
Mship1	-0.886	0.755	0.952
Mship2	-0.820		
Mship3	-0.874		
Mship4	-0.875		
Mship5	-0.887		
OC1	0.844	0.868	0.947
OC2	0.846		
OC3	0.841		
OC4	0.844		
OC5	0.835		
OC6	0.837		
OC7	0.651		
OC8	0.662		
OC9	0.647		
OC10	0.662		
OC11	0.662		
OC12	0.667		
OC13	0.761		
OC14	0.702		
OC15	0.744		
OEA1	0.918	0.836	0.938
OEA2	0.943		
OEA3	0.932		
OEA4	0.934		
OrgCom1	0.916	0.565	0.941
OrgCom2	0.905		
OrgCom3	0.905		
OrgCom4	0.917		
OrgCom5	0.929		
OrgCom6	0.894		
Prod1	0.884	0.779	0.855

Prod2	0.883		
Prod3	0.890		
Prod4	0.899		
Prod5	0.857		
ROE1	0.971	0.935	0.932
ROE2	0.966		
ROE3	0.965		
ROE4	0.966		
SEA1	0.953	0.886	0.944
SEA2	0.930		
SEA3	0.948		
SEA4	0.934		
Stress1	0.966	0.918	0.845
Stress2	0.965		
Stress3	0.963		
Stress4	0.958		
Stress5	0.949		
Stress6	0.946		
UOE1	-0.993	0.641	0.954
UOE2	-0.739		
UOE3	-0.784		
UOE4	-0.645		
Vision1	-0.906	0.848	0.932
Vision2	-0.932		
Vision3	-0.915		
Vision4	-0.925		
Vision5	-0.927		

Note: Alove- Altruistic Love; Mship-Membership; OEA- Others' emotion appraisal; Prod-Productivity; ROE- Regulation of emotion; SEA- Self-emotion appraisal; UOE- Use of emotion
AVE – Average Variance Extracted; CR – Composite Reliability
Source: Author's Calculations



4.1 Discussion

The chi-square analysis of demographic characteristics and emotional intelligence indicates that age and gender have negligible impacts on emotional intelligence levels. However, there is a statistically significant correlation between emotional intelligence and designation. Even though men (55%) possess a slightly higher level of emotional intelligence than women (46%), the chi-square value (0.087) and p-value (0.768) do not suggest a significant correlation. This is further supported by the phi statistic (0.014). In the same vein, the chi-square value of 5.963 and p-value of 0.113 indicate that there is no statistically significant relationship between age and emotional intelligence, despite the existence of differences between age categories. Conversely, a chi-square value of 7.743 and a p-value of 0.05 indicate that emotional intelligence is significantly influenced by designation. Supervisors have a higher percentage of low emotional intelligence (59%), while senior management only demonstrates high emotional intelligence (100%). The constructs' reliability and validity are verified through validation methods that employ exploratory and confirmatory factor analysis and partial least squares structural equation modelling. Cronbach's alpha and composite reliability are reliability metrics that surpass criteria values, guaranteeing reliable and precise results. Additionally, Harman's single-factor test eliminates frequent technique bias.

Conclusion

In the automotive industry, which is renowned for its high standards, rapid technological advancements, and intense competition, this study underscores the significant impact of organisational culture on stress levels. The results underscore the significant influence that flexible rules, employee recognition, leadership philosophies, and communication techniques have on the well-being and experiences of workers. An inclusive and supportive company culture has been demonstrated to have a substantial impact on the reduction of employee tension, job

satisfaction, and the development of a sense of belonging. Conversely, stress levels, morale, and staff attrition are adversely affected by inflexible cultural settings and hierarchical organisational structures. By implementing work-life balance measures, acknowledging employee accomplishments, and fostering open communication, organisations can effectively reduce workplace tension and increase overall productivity. Leadership philosophies that emphasise empathy, inclusivity, and employee engagement are effective in reducing conflict and fostering a more positive work environment. The study concludes by emphasising the dual significance of stress management for the well-being of employees and the success of an organisation. In order to cultivate employee satisfaction, adaptability, and resilience, automotive organisations must deliberately align their cultural practices. These initiatives are essential for the preservation of a competitive advantage in the market, as well as for the long-term growth and retention of staff.

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