

MEDIATION EFFECT OF ETHICAL WORKPLACE CLIMATE AND SAFETY CULTURE ON THE RELATIONSHIP BETWEEN SAFETY MANAGEMENT PRACTICES AND SAFETY PERFORMANCE IN ABU DHABI NATIONAL OIL AND GAS COMPANY

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ABSTRACT

The study looked at how safety culture and workplace ethics mediated the link between Abu Dhabi National Oil and Gas Company's safety performance and safety management techniques (ethical leadership, employee engagement, and effective communication). Seven distinct goals were used to explore it, as described in chapter 1. ADNOC personnel were chosen for the study sample of 368 using a simple random sampling procedure. A quantitative research technique was employed, together with a descriptive research design. Out of 375 viable replies, 367 were used for the final data analysis after the first data screening process eliminated 8 cases since they were invalid responses. However, quantitative approach was used to examine the data. For ADNOC, all organizations, and forthcoming scholars whose fields of research are broadened, the survey's conclusions may be used as a reference. This study will be helpful to those who develop policies and those who practice safety performance all over the world.

Keywords: Ethical Leadership, Employee Engagement, Effective Communication, Ethical Workplace Climate, Safety Culture, Safety Performance, ADNOC

INTRODUCTION

The United Arab Emirates (UAE) is considered to be one of the top oil-producing countries in the world; for instance, in 2019, 30% of the GDP share can be attributed to the Oil and Gas sector, and this contributes more to the economy than real estate (5.9%), construction (8.5%) and manufacturing (8.5%) sectors combined (UAE Commercial Guide, 2022). However, it is anticipated that fluctuations in oil prices may drastically affect the general outlook of the economy; for example, economic growth in 2020 is subject to significant uncertainty due to the COVID-19 pandemic and low oil prices (World Bank, 2020). Therefore, it is impossible to overestimate how crucial the oil and gas industry is to the country's total productivity and growth.

This research aimed to examine the mediation effect of ethical workplace climate (EWC) and safety culture (SC) on the relationship between Safety Management Practices- SMPs [ethical leadership (EL), employee engagement (EE), effective communication (EC)] and safety performance (SP) in Abu Dhabi national oil and Gas Company, based in the United Arab Emirates. Ethical leadership is when a leader directs the people by considering moral beliefs and values. Thus, it relates to concepts such as trust, honesty, consideration, charisma, and fairness (Mahmood et al., 2021). This Ethical leadership was assumed to result in a positive workplace and safety performance (Doyen et al., 2020); also (Shafique, Rani& Kalyar, 2020) investigation concluded that ethical leadership holds a positive association with workers' safety performance, safety attitude and task performance.

(Sun, 2022) As a multifaceted construct (cognition, emotions, and actions) and a unitary construct, job satisfaction is a crucial topic in managerial decision making (a positive state of mind, a dedicated willingness, and the opposite of burnout).It is assumed to be achieved by managers who ensure job satisfaction, loyalty, commitment, etc. As opposed to this, successful communication is defined as when both the sender and the recipient of the message give the message comparable meanings, pay close attention to what has been said, and help the sender feel heard and understood. In the case of safety issues, taking responsibility is stimulated by a flawless feeling of ownership that is fostered through employee involvement. Therefore (Al Zaabi, S. H & Zamri, 2022) concludes that worker engagement must be an organization's top priority if safety performance is to be achieved. This study hypothesizes that employee engagement significantly affects safety performance in ADNOC.

(Tamminen, 2021) Effective safety Communication involves clarity of roles and responsibilities plus warnings of the hazards to avoid unsafe practices while achieving a safe performance of an organization. Effective communication must be positive, interactive, productive, informative, and address barriers (Lombardo, 2022) emphasized that effective communication enhances safe working conditions, contributing to the organization's safety performance. Various authors (Sabherwal & Shreedhar, 2022), (Shi & Mohamed Zainal; S. R., 2022) believe that communication is a safety practice, once effectively carried out, serves positive benefits to safety and thus strongly correlates with safety performance. Thus the safety management Practices (SMPs) [Ethical leadership-EL, employee engagement-EE, effective communication-EC) were the independent variables of the research, yet safety performance (SP) was the dependent.

Health, Safety Environment-HSE (2021) claims that an organization's safety culture is the result of both, individual and group values, attitudes, perceptions, competences, and behavioral patterns that influence organizational competency and dedication. A substantial correlation between safety culture and safety performance in companies via safety compliance, conduct, and commitment was proven by Chen, Reniers G. & Yang (Ikechukwu, U. F., 2021) and Chen, Reniers G & Yang (Ikechukwu, U. F., 2021).

As a result, safe performance must constantly be encouraged by an ethical workplace culture (EWC). The Abu Dhabi National Oil Company (ADNOC) has established a reputation as one of the most prosperous businesses in the United Arab Emirates, one that is creative and has consistently excellent performance standards (ADNOC group sustainability report, 2018). Unfortunately, ethical leadership shortcomings, such as the insufficient management of employees' demands, particularly those of remote staff members, have had a significant negative impact on the organizational safety culture of ADNOC. Scrutinizing the problems and challenges associated with acquiring raw materials and Being effective and having a successful company depend on leveraging the information that is accessible (UAE News, 2021). Therefore, it is essential for large firms to foster an atmosphere where effective management of new initiatives is a possibility. The purpose of this study is to provide insight into how safety management practices (moral governance, clear communication, and job involvement) directly impact safety performance (SP) and the mediating role that safety culture (SC) and ethical workplace climate (EWC) play how the independent and dependent variables are related.

LITERATURE REVIEW

Safety performance and moral leadership

Leadership that upholds ethics and safety performance in the social sciences, leadership is a crucial subject that has historically received the least attention (Nauman, S., Zheng, C & Basit, 2020). According to Shafique, Kalyar, M., and Rani (2020), the leadership function has been acknowledged as a long-standing universal activity of humans and a requirement in all human endeavours. This role is also seen as a crucial component of organisational performance. (Kioko, B & Bwire, 2021) Noting that staff commitment and competence raise productivity and improve quality, leadership efficiency is important because of the competitive advantage it delivers. This can only be achieved in certain situations. In addition, executives need to take proactive measures to maintain a positive view, think about how to shape the competitive environment, and direct the company in the direction they desire.

Employee Engagement and Safety Performance

Hiring responsible workers who care about safety is being involved in safety. Elite-staffing companies frequently provide salaries that are competitive. They frequently employ a variety of selection procedures, such as structured interviews, biodata instruments, personality tests, vocation tests, assessment center activities, and IQ tests when necessary (Schwepker Jr, C. H & Dimitriou, 2021). Managers conduct structured interviews by posing standardized, behaviorally anchored, and informed by earlier job analysis questions to all candidates (Mehak, N & Siddiqui, 2020).

Effective Communication and Safety Performance

Communication and consultation are essential to achieving a safe workplace because they provide and receive information about hazards and risk controls, influence attitudes

and behaviors, and foster ownership and commitment. Communications based on mutual trust, agreement on the significance of safety, and assurance in the effectiveness of preventative measures are characteristics of organizations with a positive safety culture (Mehak, N & Siddiqui, 2020; Standards Australia, 2001).

Ethical Workplace Climate, Ethical Leadership and Safety Performance

An alarming rate of growth is being seen in occupational deaths and injuries worldwide. Over 1.9 million individuals suffer from deadly work-related problems, while an estimated 2.3 million people each year pass away from accidents and illnesses connected to their jobs (Caesens & Brison, 2023). Organizations concentrate on improving employees' performance in terms of safety given these startling statistics.

Ethical Workplace climate, Employee Engagement and Safety Performance

Organizational, social, and individual advantages are all realized when there is workplace spirituality (Moore, McTier & Blevins, 2021). It increases and consolidates social faith in the ability of goodness. The employees' superior physical, mental, emotional, and spiritual wellness is a result of workplace spirituality on an individual basis (Mehak, N & Siddiqui, 2020). Spirituality in the workplace should lead to enormous personal growth, more self-assurance, and an improved feeling of self-worth (Houston, Ferris & Crossley, 2022). (Javanmard, Lee, Kim, & Diab, 2023; Pandey, Chawla & Puri, 2021) and other researchers have argued that workplace spirituality can lead to more outstanding performance (Naeem & Khurram, 2020).

Ethical Workplace climate, Effective Communication and Safety Performance

Individualism, the free market, and democracy form the foundation of the principles of the world culture (Arnett, 2002, p. 779). The prevalent safety culture inside the business is a key presumption in the safety literature, and it influences whether employees behave safely or recklessly. The causation axis of this relationship is, however, not always clear-cut. However, the relationship may be bidirectional, with safer behaviors leading to a more positive safety culture. It is assumed that a positive safety culture motivates the workforce to engage in safer behavior. For a very long time, the male-dominated, "macho," "can do," culture has controlled the oil business in the Western world (Mostafa, A & Abed El-Motalib, 2020).

Safety Culture, Ethical Leadership and Safety Performance

(McMahon, 2021) had done study on the connections between ethical leadership, a moral workplace environment, a safety culture, a safety behaviors, and measurable safety outcomes of employees in the high dependability organizations of aviation and healthcare.

Safety Culture, Employee Engagement and Safety Performance

An individual becomes more attached to their coworkers, their job, and their company when they exhibit cognitive and emotional activity in everyday situations. This is known as employee engagement (Houston, Ferris & Crossley, 2022). The relationship between

employee morale and general well-being is supported by research conducted by the Gallup Organization in 2006. Strong emotional connections between employees and the company are associated with lower absenteeism, fewer accidents, and higher productivity, all of which contribute to more successful businesses (Fragouli & Louka, 2022).

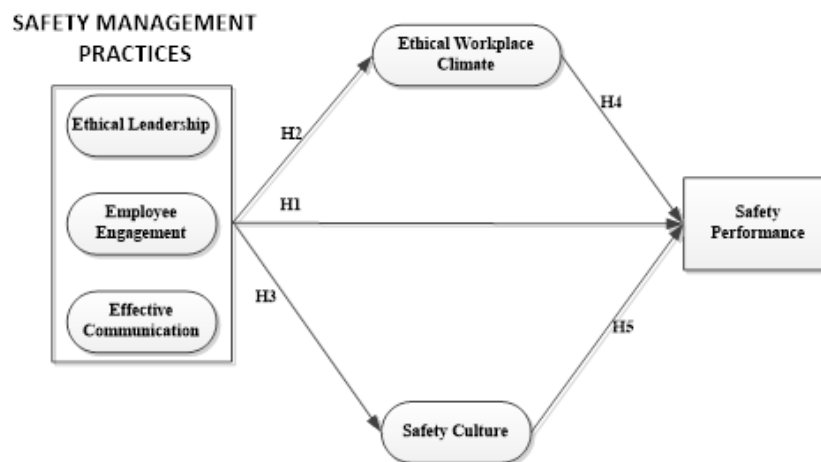
Safety Culture, Effective Communication and Safety Performance

Rules and laws, performance indicators, risk and accident investigation, workplace orientations, risk assessments, and training are a few examples of the many ways to communicate about safety. Enhancing safe work practices and preventing at-risk behavior via clear and constructive safety communication (Javanmard, Lee, Kim & Diab, 2023).

The financial success of a firm may be significantly impacted by effective safety leadership (Mehak, N & Siddiqui, 2020). Excellence in operations and safety go together. Businesses that manage operations successfully also do a good job controlling safety (Naeem & Khurram, 2020).

Conceptual Framework

Researcher believes that ethical leadership, employee engagement and effective communication directly relate with safety performance however a mediation effect of ethical workplace climate and safety culture on the variables as proposed by the resilience safety theory (Geurin & Sleet, 2020; and Friedwald's model 2013).



Modified by researcher from: Geurin & Sleet (2020) and Bortey, Edwards & Rillie (2020)

Research Hypothesis

Hypotheses	
H1. a	The effectiveness of Safety is significantly enhanced by ethical leadership.
H1. b	Safety performance is greatly impacted favourably by employee engagement.
H1. c	Performance in the area of safety is significantly improved by effective communication.
H2. a	The climate of the workplace is significantly improved by ethical leadership.
H2. b	Ethical Workplace Climate is significantly improved by employee engagement.
H2. c	Ethical Workplace Climate is greatly benefited by effective communication.
H3, a	Safety culture is greatly enhanced by ethical leadership
H3, b	The safety culture is greatly influenced by employee engagement.
H3, c	The culture of safety is greatly benefited by effective communication.
H4	Workplace ethics The performance of Safety is significantly improved by the climate.
H5	On safety performance, safety culture has a considerable favorable impact.
H6. a	The ethical climate at work acts as a mediator in the relationship between moral leadership and safety performance.
H6. b	Occupational Ethics Employee engagement and safety performance are related, but through a mediator called climate.
H6. c	Occupational Ethics The atmosphere mediates between effective communication and safety performance.
H7. a	Safety culture acts as a mediator in the relationship between moral leadership and safety performance.
H7. b	Safety culture acts as a mediator in the relationship between employee participation and safety performance.
H7. c	Safety culture acts as a mediating factor in the relationship between effective communication and safety performance.

METHODOLOGY

The rules governing a scientific inquiry (methodology), intellectual assertions, the nature of reality (ontology), information (materialist philosophy), or the technical challenges involved in carrying out a study (research methodologies) can all be thought of as aspects of the research process (Regina, 2017). Research Onion (Saunders, Lewis, & Thornhill, 2009): This study was exploratory since the researcher sought more information to know about the situation related to the Safety Management Practices-

SMPs (Ethical leadership, employee engagement, effective communication) and workplace climate, safety culture plus safety Performance. According to (Krejcie & Morgan, 1970), the suitable sampling design for this research is 383 with regard to the context's population of 5450 ADNOC in the UAE. The researcher employed the simple random sampling technique as proposed by (Taherdoost, 2016). This was done to have enough representation of the study population, 367 respondents from a total population of employees working with ADNOC to reflect (Krejcie and Morgan's sufficient sample. A research instrument is adopted research and is a reflection of (Bontis, 1999; Bontis et al., 2002) on Ethical Leadership, Employee Engagement (D. Cheng, Liu, Qian, & Song, 2013) Effective Commutation, (Bass & Avolio, 1994) Safety Performance and (Nassazi, 2013) on Ethical Workplace Climate and Safety Culture.

Data Collection Method Procedure

Specifically, a self-administered paper questionnaire was used as the primary data collecting and assessment method in this investigation. Although ADNOC staff members in the UAE serve as the study's participants, it was decided to distribute and collect data online instead as it is cost-effective, faster, more accurate, and fast analysis (Sekaran & Bougie, 2013), especially in the era of COVID 19 online questionnaire is the first option for researchers for safety purposes. Primary data was collected and generated by the researcher, and the different ways to collect primary data were included in the survey method. In comparison, Secondary data was gathered from already existing sources, particularly during the literature review. Secondary data sources included journals, articles, books, book sections, magazines, conference proceedings, blogs, newspapers, reports, etc.

Statistical tools and Data Analysis Approach

This research incorporates a number of statistical methods with the use of SPSS version 26; the researcher easily stored and organized the provided data, then compiled the data set to produce suitable output.

FINDINGS

Ethical Leadership (EL)

According to the scale being utilized, a moderate level of agreement was indicated by the mean score for the eight items, which varied from 3.22 to 3.71. There was a little departure from the mean in the standard deviation for the eight items, which varied from 1.202 to 1.252. Consequently, the descriptive analysis demonstrates that the performance of the safety culture is benefited by ethical leadership.

Employee Engagement (EE)

According to the scale, a moderate level of agreement is indicated by the eight items' mean scores, which varied from 3.05 to 3.44. With respect to the mean score, the standard deviation was within the range of 1.061 to 1.70. Employee involvement has a favourable impact on the effectiveness of the safety culture, according to the findings of

the descriptive analysis.

Effective Communication (EC)

To measure efficient communication, eight things were employed. The scale suggests that respondents had a moderate level of agreement based on the mean scores for all eight, which varied from 3.22 to 3.71. All of the items' standard deviations, which are close to the mean score, were between 0.946 and 1.252. As a result, the descriptive findings indicate that the performance of safety cultures is positively impacted by effective communication.

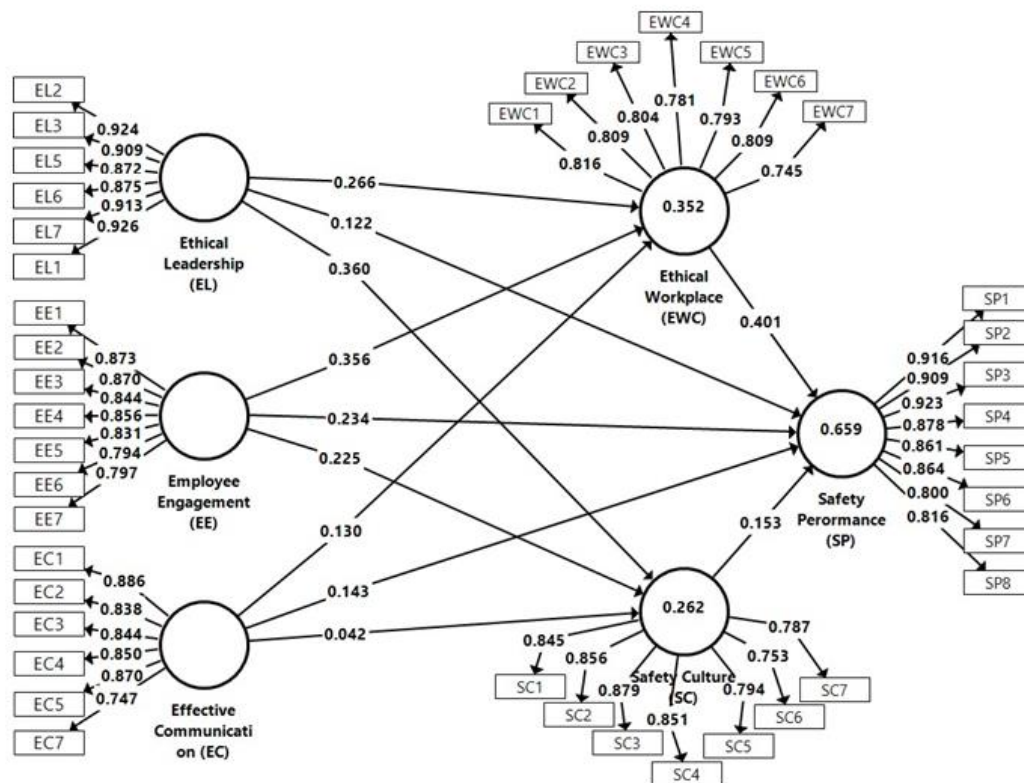
Ethical Workplace Climate (EWC)

Seven items were used to measure ethical workplace climate. The mean score for the items ranged from 2.80 to 3.12, which according to the Likert scale used, indicates a moderate level of agreement among respondents that ethical workplace climate has a positive impact on safety culture performance. The standard deviations for the items were also small (1.061 to 1.111), meaning that respondents scored around the mean score.

Safety Culture (SC): Seven items were used to measure safety culture. The items had mean scores ranging from 3.03 to 3.30, which according to the scale used; indicate a moderate level of agreement among respondents that safety culture has a positive effect on safety culture performance. The standard deviation scores ranged from 1.092 to 1.223, which are small, meaning respondents scored around the mean score.

Safety Performance (SP): Eight items were used to measure safety performance. The eight items had a mean score ranging from 3.44 to 3.52, which according to the scale used, indicates a moderate level of agreement among respondents on what they perceived as safety performance. The standard deviations of the items were also small, meaning that the majority of the respondents scored around the mean scores.

Measurement model assessment: Each component is assessed using a specific methodology, according to (Hair et al., 2017). By doing a goodness of fit analysis, the assessment of the measures measurement model will be assessed. This subsection will cover concerns regarding the validity and reliability of each of the employed constructs. The outcomes of the PLS method (regression weights) for the whole model are displayed in Figure 4.1. PLS 3.0 was used to create the PLS algorithm.



PLS algorithm results (regression weights)

Goodness of fit--- is a measure of model fit

The dispute surrounds PLS-SEM, which is used for theory testing and confirmation but lacks a commonly accepted goodness-of-fit measure (Hair et al., 2017). Heenseler et al. (2014) introduced the standardized root mean square residual (SRMR), which measures the squared imbalance between the accurate impression and the prototype causal links, as a way to verify a design, with principles less than 0.08 being regarded as a good fit. However, some studies, like those by (Bentler & Huang, 2014), have started to develop goodness-of-fit metrics within a PLS-SEM framework.

Analysis of the structural model

The structural equation model is the second important phase of SEM analysis. Once the measurement model has been validated, a representation of the structural model may be produced by specifying the connections between the parts. The structural model gives information on the connections between the variables, according to (Hair et al., 2010; Ho, 2006). (Hair, Hult, Ringle, & Sarstedt, 2017) proposed using a bootstrapping approach and a resample of 5,000 data points to examine the beta (β), R², and matching t-values to evaluate the structural model. The predictive relevance (Q²) should be reported, they also advise. The p-value, according to (Sullivan & Feinn, 2012), does not indicate the magnitude of the impact; rather, it just indicates if the effect is present. The findings of PLS bootstrapping (T Statistics), which were based on PLS

3.0, are shown in Figure 4.2.

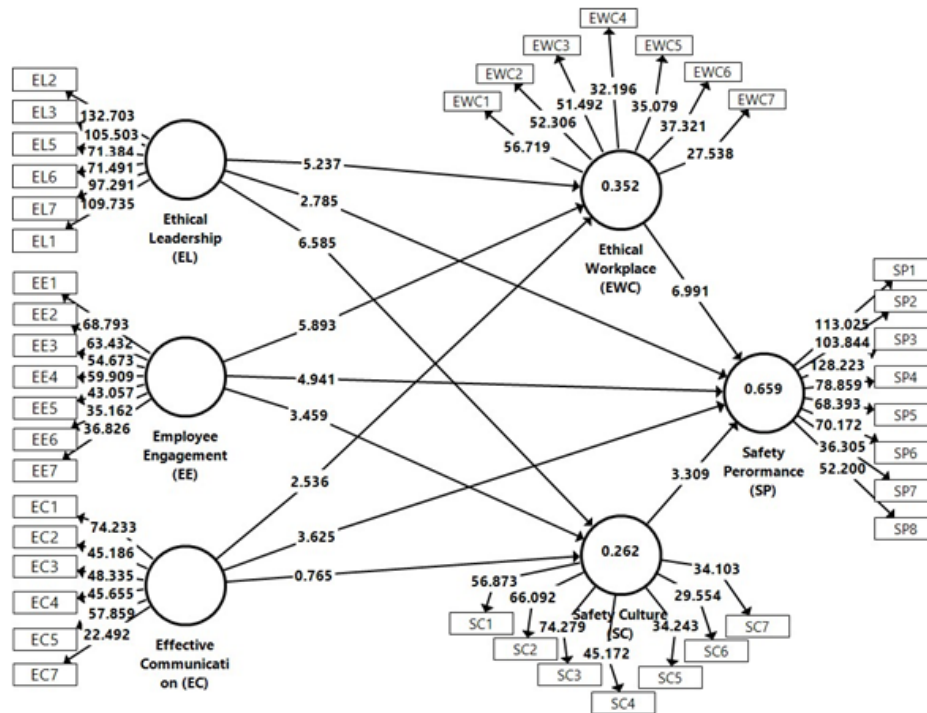


Figure 4.2. PLS bootstrapping (T Statistics)

Testing Direct Hypotheses

The evaluation of the structural model is depicted in Figure. 4. 1, Figure 4.2, Ethical leadership significantly predict ethical workplace climate, safety culture, and safety performance. Hence, H1.a, H1.b and H1.c are accepted with ($\beta = 0.266$, $t = 5.203$, $p < 0.001$), ($\beta = 0.359$, $t = 6.652$, $p < 0.001$), and ($\beta = 0.124$, $t = 2.798$, $p < 0.001$) respectively. Further, employee engagement significantly predict ethical workplace climate, safety culture, and safety performance. Hence, H2.a, H2.b, and H2.c are accepted with ($\beta = 0.357$, $t = 5.961$, $p < 0.01$), ($\beta = 0.226$, $t = 3.489$, $p < 0.01$), & ($\beta = 0.132$, $t = 2.592$, $p < 0.05$) correspondingly. Moreover, effective communication significantly predicts ethical workplace climate, and safety performance. Hence, H3.a and H3.c are accepted with ($\beta = 0.132$, $t = 2.592$, $p < 0.05$) and ($\beta = 0.143$, $t = 3.523$, $p < 0.001$) respectively, while H3.b was not supported (employee engagement does not impact the safety culture). Furthermore, ethical workplace climate significantly predict safety show. Therefore, H4 is recognized by ($\beta = 0.399$, $t = 7.110$, $p < 0.001$). Finally, safety culture predicts the safety performance with ($\beta = 0.154$, $t = 3.287$, $p < 0.001$), hence, H5 is supported.

Since the standardized path coefficient reflects the strengths of the connection between exogenous and endogenous components, the direct effects of user satisfaction on performance impact are larger than the direct effects of actual usage on performance

impact.

Structural path analysis result

Hypo	Relationship	Std Beta	Std Error	t-value	p-value	Decision
H1. a	EL → EWC	0.266	0.051	5.203	0.000	Supported
H1. b	EL → SC	0.359	0.054	6.652	0.000	Supported
H1.c	EL → SP	0.124	0.044	2.798	0.005	Supported
H2. a	EE → EWC	0.357	0.060	5.961	0.000	Supported
H2. b	EE → SC	0.226	0.064	3.489	0.000	Supported
H2.c	EE → SP	0.234	0.048	4.928	0.000	Supported
H3. a	EC → EWC	0.132	0.050	2.592	0.010	Supported
H3. b	EC → SC	0.044	0.055	0.755	0.450	Not-Supported
H3.c	EC → SP	0.143	0.041	3.523	0.000	Supported
H4	EWC → SP	0.399	0.056	7.110	0.000	Supported
H5	SC → SP	0.154	0.047	3.287	0.001	Supported

R² value is a measure of the correlation.

The amount of dependent variables' variance that can be explained by independent variables is shown by the R² value. The structural model's capacity for prediction is therefore enhanced by a higher R² value. The model must have at least a minimal amount of explanatory power, hence it is imperative that the R² values be high enough (Urbach & Ahlemann, 2010). R² values are obtained in this investigation using SEM-SMART PLS 3.0. (Falk and Miller 1992) It is advised that for an endogenous construct to be considered to have an appropriate amount of explained variation, the R² values must be at least 0.10 in order to be considered acceptable. According to (Chin, 1998), R² is considered big when it is greater than 0.65 and acceptable power is greater than 0.19. In contrast, Cohen (1988b) said that R² is significant when it is higher than 0.26 and tolerable strength is higher than 0.02. In contrast hand, (Hair et al., 2013) recommended that acceptable power should be above 0.25 and that for R² R² to be regarded significant, it must be larger than 0.75. The architectural model's R² values are shown in the table, which demonstrates that all of the R² values are adequate for the theory to achieve a desired level of interpretability. Remember that 0.659 is the variance in the effect of exogenous components on outcome.

(66%)

Results of the coefficient of determination R²

Explicit Construction	Internalized Structure	R ²	Cohen (1988b)	Chin (1998)	Hair et al., (2013)
EL, EE, EC	EWC	0.352	Substantial	Moderate	Moderate
EL, EE, EC	SC	0.262	Substantial	Moderate	Moderate
EL, EE, EC, EWC, SC	SP	0.659	Substantial	Substantial	Moderate

EL: Ethical Leadership, EE: Employee Engagement, EC: Effective Communication, EWC: Ethical Workplace Climate, SC: Safety Culture, SP: Safety Performance

Predictive relevance (blindfolding) Q²

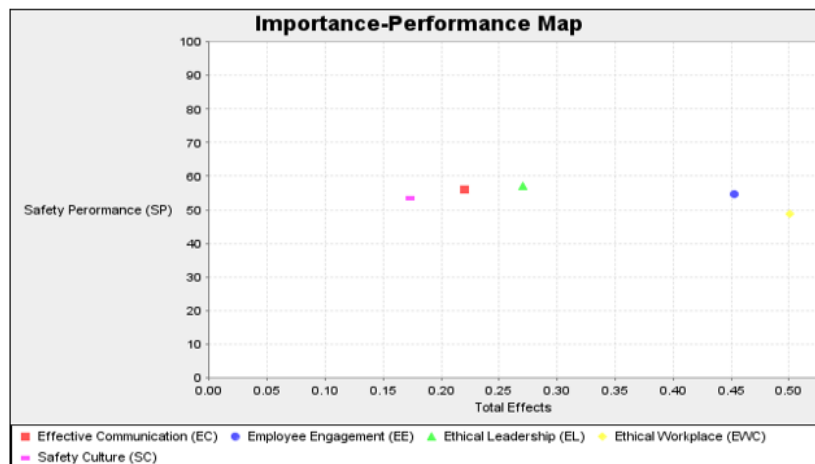
This study assessed the effectiveness of the research-proposed model in terms of the predictive relevance by employing a blindfolding process. Hair et al. (2017) advise against use the blindfolding method for anything other than endogenous constructs with reflected measurements. If Q², which is more than 0, has a value greater than 0, then the proposed model is predictively meaningful for that particular endogenous construct. (Hair et al., 2017; Fornell & Cha, 1994) Table 4.18 shows that if all Q² values in the range of 0.173 to 0.493 (greater than 0) are present, the proposed model provides a suitable degree of predictive significance. According to the report's results, external variables have a significant prognostic significance. To quantify the relative predictive importance of the Q² values, Hair et al. (2017) suggested values of 0.35 (large), 0.15 (mid), and 0.02 (little).

Table 4.18 predictive significance (Blinding) Q²

Endogenous construct	Q ²
EWC	0.213
SC	0.173
SP	0.493

Key: EWC: Ethical Workplace Climate, SC: Safety Culture, SP: Safety Performance.

Post-hoc statistical power:

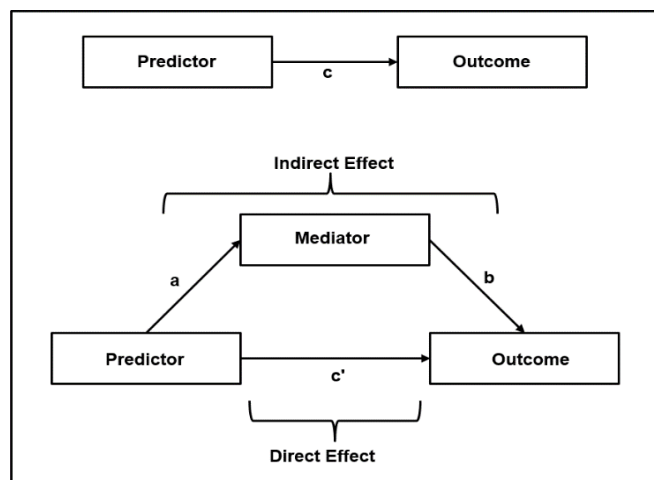


Statistical power is the ability to separate noise from signals or the probability that it will differentiate an impact of a specific magnitude from random chance, and it helps the researcher determine the analysis's power. The number of predictors, observed R², observed predictors, and sample size all has an impact on statistical power (Cohen, 1988b; Cohen, Cohen, West, & Aiken, 2003). In order to calculate the observed Power for the study R², this study employed a Statistical calculator for post-hoc analysis that

was recommended by (Sober, 2016). Convention dictates that minimum acceptable Control in the social sciences is 80 percent (Gefen & Rigdon, 2011). The closer the outcome is to one, the stronger the power gets if the perceived arithmetical authority is more than 0.8, which denotes decent authority. The Daniel Sober calculator's output reveals that this study's observed statistical power is 0.99, which is considered to be of strong statistical power. Analysis of the Importance-Performance Map (IPMA). An importance-performance matrix analysis (IPMA) was carried out as a post-hoc method in PLS, and the study's result construct was the performance impact of using e-learning systems. According to the IPMA's calculations, the performance of the predecessor constructs is shown by their average latent variable scores, while the influence of those constructs on the target construct is shown by their total effects (performance impact). The index values (performance scores) were calculated using the latent constructs scores, which had been rescaled to a range of 100 (highest performance) to 0 (worst performance) (Hair et al., 2017). Ringle & Sarstedt believe that IPMA "enriches" the results of PLS analysis (2016). Along with looking at the path coefficients (the significance dimension), the mean price of the latent variables and their signals are also taken into account (i.e., the performance dimension).

Mediation Assessment

The link between the predictor and outcome variables is shown in Figure (described as c). The picture also demonstrated the following relationships between each variable and the third variable: (1) The predictor variable could be able to predict the mediator based on the path denoted as a.; (2) The go-between can anticipate the result via the path denoted as b. The mediator included in the proposed model was indicated as c' since the connection between the predictor and outcome variables might differ.



Basic Mediation Model Source: (Field, 2013)

The variable function can be used as the mediator if it satisfies the following requirements: (1) The predictor variable should be able to forecast the outcome variable without the mediator; (2) The predictor variable should be able to forecast the mediator; (3) The mediator variable should be able to forecast the consequence variables; and (4)

The forecaster flexible should not effectively forecast the result variables when the intermediary is involved in the model. In order to investigate the mediation hypotheses H6.a, H6.b, H6.c, H7.a, and H7.b, the research also used the Preacher & Hayes (2004) approach for bootstrapping indirect effects. Using the values ($= 0.106$, $t= 4.401$, $p0.001$), ($= 0.142$, $t= 4.690$, $p0.001$), and ($= 0.053$, $t= 2.400$, $p0.05$), respectively, the results showed that ethical workplace climate mediated the relationship between each ethical leadership, employee engagement, and effective communication on one side and safety performance on the other. H6.a, b, and c are therefore approved. Moreover, the findings demonstrated that safety culture, with values of ($= 0.055$, $t= 3.146$, $p0.05$) and ($= 0.035$, $t= 2.220$, $p0.05$), respectively, moderated the association between ethical leadership and employee engagement on the one hand, and safety performance on the other. As a result, H7.a and b were approved whereas H7.c was not.

Mediation Analysis

Culture of Safety, H7c enables the EC and SP relationship to be mediated, In order to evaluate SC's mediating role, mediation analysis was carried out. The findings (see Table 20) showed that SC had no mediating effect ($H: 7c = 0.009$, $t=0.221$, $p = 0.825$) and were significant ($p > 0.10$). Despite the fact that the direct impact of EC was not significant when the mediator was included ($= 0.051$, $t=0.221$, $p>0.001$), the overall effect of EC on SP was significant ($= 0.191$, $t=0.247$, $p < 0.001$). SC does not thus act as a mediator in the connection between EC and SP.

H7c (EC -> SC -> SP)

Total Effects (EC -> SP)		Direct Effects (EC -> SP)		Indirect Effects of EC on SP				
Coefficient	p-value	Coefficient	p-value		Coefficient	SD	T values (bootstrap)	P-values
0.191	0.000	0.051	0.107	H7c (EC -> SC -> SP)	0.002	0.009	0.221	0.825

Key: EL: Ethical Leadership, EE: Employee Engagement, EC: Effective Communication, EWC: Ethical Workplace Climate, SC: Safety Culture, SP: Safety Performance. $p < 0.05$

H7b: EE and SP Relationships Are Mediated by Safety Culture, to evaluate the mediating function of SC, a mediation study was conducted. The findings (see Table 21) showed that SC ($H: 7b = 0.028$, $t=1.651$, $p = 0.099$) played partial mediating roles that were significant ($p > 0.10$) in the study. The direct impact of EE was remained significant after taking the mediator into account ($= 0.192$, $t=0.221$, $p>0.001$), and the overall effect of EE on SP was substantial ($= 0.421$, $t=3.069$, $p < 0.001$). SC therefore acts as a mediator in the interaction between EE and SP.

H7b (EE -> SC -> SP)

Total Effects (EE -> SP)		Direct Effects (EE -> SP)		Indirect Effect EE on SP				
Coefficient	p-value	Coefficient	p-value		Coefficient	SD	T values (bootstrap)	P-values
0.421	0.000	0.192	0.000	H7b (EE -> SC -> SP)	0.028	0.017	1.651	0.099

H7a: The relationship between EE and SP is mediated by safety culture, To evaluate SC's mediating role, a mediation analysis was done. The findings (see Table 22) indicated that SC played significant ($p < 0.10$) partial mediating roles ($H:7a = 0.053$, $t=2.166$, $p = 0.030$). The direct impact of EL was remained significant after accounting for the mediator ($= 0.196$, $t=2.166$, $p>0.001$), and the overall effect of EL on SP was substantial ($= 0.314$, $t=5.383$, $p < 0.001$). SC therefore acts as a mediator between EL and SP.

H7a (EL -> SC -> SP)

Total Effects (EL -> SP)		Direct Effects (EL -> SP)		Indirect Effect EL on SP				
Constant	p-value	Constant	p-value		Constant	SD	T values (bootstrap)	P-values
0.314	0.000	0.196	0.000	H7a (EL -> SC -> SP)	0.053	0.024	2.166	0.030

Key: EL: Ethical Leadership, EE: Employee Engagement, EC: Effective Communication, EWC: Ethical Workplace Climate, SC: Safety Culture, SP: Safety Performance $p < 0.05$

H6c: Relations between EC and SP are mediated by safety culture, In order to evaluate SC's mediating role, mediation analysis was carried out. The outcomes (see Table 23) demonstrated significant ($p < 0.10$) partial mediating functions of SC ($H: 6c = 0.049$, $t=1.820$, $p = 0.069$). Despite the mediator being included, the direct impact of EL on SP was remained statistically significant ($= 0.151$, $t=2.166$, $p>0.001$) in its entirety. EWC does not act as a middleman in the interaction between EC and SP as a result.

H7c (EC -> EWC -> SP)

Total Effects (EC -> SP)		Direct Effects (EC -> SP)		Indirect Effects of EC on SP				
Constant	P-value.	Constant	P-value.		Constant	SD	T- values (bootstrap)	P-value's
0.191	0.000	0.051	0.107	H7c (EC -> EWC -> SP)	0.049	0.027	1.820	0.069

H6c: Moral Conduct EC and SP relationships are mediated by climate, to evaluate the mediating function of SC, a mediation study was conducted. According to the findings (see Table 4. 24), SC played significant ($p < 0.10$) partial mediating roles ($H6b: = 0.165$, $t=3.941$, $p = 0.000$). Even after accounting for the mediator, the direct impact of EL on EWC was remained significant ($= 0.192$, $t=3.996$, $p>0.000$). The overall effect of EL on EWC was significant ($= 0. 0.421$, $t=6.974$, $p < 0.001$). The link between EE and SP is therefore mediated by EWC.

H6b (EE -> EWC -> SP)

Total Effects (EE -> SP)		Direct Effects (EE -> SP)		Indirect Effect EE on SP				
Coefficient	p-value	Coefficient	p-value		Coefficient	SD	T values (bootstrap)	P-values
0.421	0.000	0.192	0.000	H6b (EE -> EWC -> SP)	0.165	0.042	3.941	0.000

H6c: Moral Conduct EC and SP relationships are mediated by climate, to evaluate the mediating function of SC, a mediation study was conducted. The findings (table 4.25; p 10) showed that SC played significant (p 10) partial mediating roles (H6a: = 0.144; t=4.392; p = 0.000). Even after accounting for the mediator, the direct impact of EL on EWC was remained significant (= 0.196, t=3.996, p>0.000). The overall effect of EL on EWC was significant (= 0. 0.314, t=5.523, p 0.001). The link between EE and SP is therefore mediated by EWC.

H6a (EL -> EWC -> SP)

Total Effects (EL -> SP)		Direct Effects (EL -> SP)		Indirect Effect EL on SP				
Coefficient	p-value	Coefficient	p-value		Coefficient	SD	T values (bootstrap)	P-values
0.314	0.000	0.196	0.000	H6a (EL -> EWC -> SP)	0.144	0.033	4.392	0.000

Hypotheses Testing Results

Summary of Results

Hypo		Findings
H1. a	The environment of an ethical workplace is significantly improved by ethical leadership.	Supported
H1. b	The safety culture is greatly enhanced by ethical leadership.	Supported
H1. c	The performance of safety has been markedly improved by ethical leadership.	Supported
H2. a	The environment of ethics in the workplace is significantly improved through employee engagement.	Supported
H2. b	The safety culture is greatly influenced by employee engagement.	Supported
H2. c	On the subject of safety performance, employee engagement is highly beneficial.	Supported
H3. a	The moral atmosphere of the workplace is significantly improved by good communication.	Supported
H3. c	The performance of safety has a substantial beneficial impact on communication.	Supported
H4	Performance in terms of safety is significantly impacted favorably by an ethical workplace culture.	Supported
H5	On safety performance, safety culture has a considerable favorable	Supported

	impact.	
H6. a	The ethical climate at work acts as a mediator in the relationship between moral leadership and safety performance.	Supported
H6. b	The ethical climate of the workplace acts as a mediating factor in the relationship between employee engagement and safety performance.	Supported
H6. c	The workplace's ethical culture serves as a mediator between effective communication and safety performance.	Supported
H7. a	Between moral leadership and safe performance, safety culture acts as a mediator.	Supported
H7. b	Employee engagement and safety performance are related through a mediator called safety culture.	Supported
H7. c	Effective communication and safety performance are correlated, although safety culture modulates this link.	Not-Supported
H3. b	The culture of safety is significantly impacted favorably by effective communication.	Not-Supported

DISCUSSION

Relationship between ethical leadership and safety performance; the study's primary goal was to investigate the connection between moral leadership and safe behavior. The degree to which the ADNOC Oil Company may gain from the advantages of ethical leadership and improve its users' safety performance depends on how much improvement can be made. This conclusion is consistent with earlier research's findings, which imply that ethical leadership promotes safety leader practices through decision-making and the organization's safety production (Yang et al., 2021). (Mo & Shi, 2018).

Relationship between employee engagements influenced by ethical leadership embodied with safety culture; Finding out how employee engagement affects ethical leadership was the second goal. The results generally supported the idea that safety culture and employee engagement have a favourable impact on ethical leadership.

Relationship between Ethical workplace climate and safety performance; Trying to improve your successful execution of an ethical working culture is necessary for the ADNOC Oil Company to perform. The management of the business has created a strategy for obtaining ISO 9001 to that goal. This finding is in line with the body of research (Antunes, Quirós, & Justino, 2018; Jimoh, Oyewobi, Isa, & Waziri, 2018; Singh, Kumar, & Singh, 2018; Ahmad, Zakuan, Jusoh, & Takala, 2013) that claims the adoption of safety performance practises results in a reduction in accidents **to improved performance, increased competitiveness and reduced accidents.**

Relationship between effective communication and safety culture

Examining the link between good communication and safety culture was the study's fourth goal. 357 individuals responded to eight questionnaire items intended to elucidate this. The study thus found that effective communication positively affects safety culture (Lin, 2017), which is positively related to work performance.

Mediation Effect: The sixth and seven objectives of the study were to examine the mediation effect of ethical workplace climate on the relationship between Safety management practices and safety performance in ADNOC and to examine the mediation effect of safety culture on the relationship between safety management practices and safety performance in ADNOC, respectively. Worker expectations, safety behavior, and ultimately adverse incidents are all influenced by the safety environment, according to safety climate models developed by Zohar (2003) and Flin (2007). So, such elements might be anticipated results of a safe employment environment. According to a recent study done in 91 hospitals, the workplace safety environment acts as a mediator for workplace safety and also has an impact on patient safety-related adverse events. A decreased chance of encountering patient safety indicators was shown in this study by Singer et al. (2009), which showed a substantial link between an ethical work atmosphere and frontline staff members.

Implications of the Study:

Findings suggest that businesses may maximize worker safety for positions with high safety-critical context by exhibiting ethical leadership behaviors. According to the study, ethical leadership may show to be a valuable tool for enhancing employee health, safety, and well-being on the job, which would ultimately benefit those employees' overall health. Second, the study suggests that creating a healthy, safe, and productive workplace depends on organizations having good safety communication. Roles and duties must be well recognised, dangers must be alerted to, dangerous behaviours must be avoided, an emergency response must be developed, and workers must especially be made aware of the dangers, problems, and concerns they may face. Thirdly, the study contends that employees' decisions to follow safety regulations and take part in safety-improving activities are influenced by the ethical climate of the workplace. The report serves as a reminder to corporate leaders to foster open communication, abstain from bias, set an exemplary example, and work hard to maintain a safe workplace.

Theoretical implications:

The study enriches the Safety Performance theory of Resilience by investigating all its ideal factors through the connections between moral leadership, employee involvement, and safety culture, ethical workplace culture and safety performance, effective communication and safety performance at ADNOC Oil Company. By confirming hypotheses H1 through H9 proposed in Chapter 1 of this thesis to be true, the resilience theory is through expanded for good practices in safety performance within organizations. Additionally, the research has added to the body of knowledge on socio-technical perspectives on sustainable manufacturing in both theoretical and practical ways. In the sections that follow, their contributions are described. The research

deepens knowledge of safety culture ideas and transformational leadership theories. The research of Friedwald's dissertation in 2013 continues to further understanding. All of the aforementioned therefore support conceptual development and theory understanding.

CONCLUSION:

The overarching goal of the study was to better understand how the safety culture and workplace climate at the ADNOC group of enterprises influence the link between safety management techniques and safety performance. The construct of ethical leadership was measured using questionnaires capturing management commitment, prudence items, fortitude items, temperance items and justice items. Ethical workplace climate was measured using seven items that explored the perception of ethical work place climate adopted from Victor and Cullen (1987).

RECOMMENDATIONS:

For safety performance to be sustainably achieved in organizations, ethical leaders and their teams must fight hard to eliminate all unethical practices so as to create a safety and ethical workplace prevailing in the organization. This is because Ethical work place strongly connects the efforts of ethical leaders, effective communication and employee engagement to yield a safety performance environment for organizations.

Ethical leadership should be supported by all leaders through demonstrating appropriate conduct via interpersonal and personal actions whereby ethical decision-making, effective communication and reinforcement are at the center (Qin et al., 2018; Walumbwa, 2017). There should be managerial actions, such as giving a penalty to the person who is involved in unethical practices, using two-way transmissions and rewarding a person for his ethical attitude (Brown et al., 2015). Hence valuing dimensions of morally upright administrators and moral creature who are trusted to act fairly, honestly and ethically (Mayer, Aquino, Greenbaum, & Kuenzi, 2012).

Safety culture and Ethical workplace climate must be pioneered to enable effective implementation of safety management practices. This is because poor safety performance, which may result from unethical and unsafe environments, is gradually costly to an organization (Noblet & Sharifah, 2022).

Lastly, safety policies must be respected at all times in a workplace environment to reduce violation-accidents (Oswald, Sherratt & Smith, 2019). Also the ethical leaders and their teams must build a positive so as to significantly improve employees' safety performance (Khan, 2018), just like all safety systems and cultures in place must be followed for all organizations to achieve safety performance.

Study Limitations and Future Research Directions

First off, in order to overcome time and financial limitations, this study selected a small sample size. This indicates a restriction on the sample size and sampling technique. The researcher utilized a random sample of 386 ADNOC Oil Company workers. This

restriction may limit how far the findings may be applied. The second method used in this study was a self-administered questionnaire. Based on the respondent's attitude, the questions were translated, and already 8 were returned blank, with some questions also being impacted by answer biases. In order to obtain a more accurate image from the relevant respondents themselves, it is advised that a field observation be conducted.

Thirdly, rather than using a longitudinal approach where the same sample is examined again, the survey for this study used a cross-sectional technique. The relationships between the variables' temporal sequence cannot be established as a result. Despite the fact that a cross-sectional method is sufficient to identify the connection between many constructs, research may enhance the causal connections between distinct constructs by assuming cause and effect (Ozcelik, 2010). Future studies should employ longitudinal research designs to create a more complete understanding of causation. In addition, because this research is limited to the oil industry, it is not applicable to other sectors. The current study was only geographically conducted at the ADNOC Oil Company in the United Arab Emirates due to time and cost restrictions. Because every country has a unique culture that influences people's behavior and views, it is possible to generalize to other UAE but not to other nations. In order to avoid generalizing the results of the present study to an industry or another nation, a replication study is suggested.

References

- Ahmad, M. F., Zakuan, N., Jusoh, A., & Takala, J. (2013). Review of relationship between TQM and business performance. In *Applied Mechanics and Materials* (Vol. 315, pp. 166-170). Trans Tech Publications Ltd.
- Al Zaabi, S. H., & Zamri, R. (2022). Managing Security Threats through Touchless Security Technologies: An Overview of the Integration of Facial Recognition Technology in the UAE Oil and Gas Industry. *Sustainability*, 14(22), 14915.
- Antunes, M. G., Quirós, J. T., & Justino, M. D. R. T. F. (2018). Role of management control systems in quality, innovation and organizational performance in Portugal SMES companies. *International Journal of Innovation and Technology Management*, 15(02), 1850014.
- Bass, B. M., & Avolio, B. J. (1994). Transformational leadership and organizational culture. *The International Journal of Public Administration*, 17(3-4), 541-554.
- Bentler, P. M., & Huang, W. (2014). On components, latent variables, PLS and simple methods: Reactions to Rigdon's rethinking of PLS. *long range planning*, 47(3), 138-145.
- Bontis, N. (1999). Managing an organizational learning system by aligning stocks and flows of knowledge: An empirical examination of intellectual capital, knowledge management, and business performance.
- Bontis, N., Crossan, M. M., & Hulland, J. (2002). Managing an organizational learning system by aligning stocks and flows. *Journal of management studies*, 39(4), 437-469.
- Bortey, L., Edwards, D. J., Roberts, C., & Rillie, I. (2022). A Review of Safety Risk Theories and Models and the Development of a Digital Highway Construction Safety Risk Model. *Digital*, 2(2), 206-223.

- Brown, M. C., Donadini, F., Korte, M., Nilsson, A., Korhonen, K., Lodge, A., ... & Constable, C. G. (2015). GEOMAGIA50. v3: 1. General structure and modifications to the archeological and volcanic database. *Earth, Planets and Space*, 67(1), 1-31.
- Caesens, G., & Brison, N. (2023). The relationship between organizational dehumanization and safety behaviors. *Safety Science*, 158, 105971.
- Chen, C., Li, C., Reniers, G., & Yang, F. (2021). Safety and security of oil and gas pipeline transportation: A systematic analysis of research trends and future needs using WoS. *Journal of Cleaner Production*, 279, 123583.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295(2), 295-336.
- Cohen, C., & Cohen, P. (2005). West & Aiken (2003). *Applied multiple regression/correlation analysis for the behavioral sciences*.
- Cohen, J. (1988). Set correlation and contingency tables. *Applied psychological measurement*, 12(4), 425-434.
- Cullen, J. B., Victor, B., & Bronson, J. W. (1993). The ethical climate questionnaire: An assessment of its development and validity. *Psychological reports*, 73(2), 667-674.
- Doyen, B., Vlerick, P., Soenens, G., Vermassen, F., & Van Herzeele, I. (2020). Team perception of the radiation safety climate in the hybrid angiography suite: A cross-sectional study. *International Journal of Surgery*, 77, 48-56.
- Falk, R. F., & Miller, N. B. (1992). *A primer for soft modeling*. University of Akron Press.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. Sage.
- Fragouli, E., & Louka, X. M. (2022). Employee engagement, ethical leadership & crisis. *Journal of Business and Retail Management Research*.
- Gefen, D., Rigdon, E. E., & Straub, D. (2011). Editor's comments: an update and extension to SEM guidelines for administrative and social science research. *MIS quarterly*, iii-xiv.
- Guerin, R. J., & Sleet, D. A. (2020). Using Behavioral Theory to Enhance Occupational Safety and Health: Applications to Health Care Workers. *American Journal of Lifestyle Medicine*, 15(3), 269–278. <https://doi.org/10.1177/1559827619896979>
- Hair, J. F. (2013). *Essentials of marketing research*.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods. *Journal of the academy of marketing science*, 45(5), 616-632.
- Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial management & data systems*.
- Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W. ... & Calantone, R. J. (2014). Common beliefs and reality about PLS: Comments on Rönkkö and Evermann (2013). *Organizational research methods*, 17(2), 182-209.
- Ho, R. (2006). *Handbook of univariate and multivariate data analysis and interpretation with SPSS*. Chapman and Hall/CRC.
- Houston, L., Ferris, D. L., & Crossley, C. (2022). Does Value Similarity Matter? Influence of Ethical Leadership on Employee Engagement and Deviance. *Group & Organization Management*, 10596011221124790.

- Ikechukwu, U. F. (2021). The Effect of Workplace Safety on the Performance of Enugu State Electricity Distribution Company.
- Javanmard, R., Lee, J., Kim, J., Liu, L., & Diab, E. (2023). The impacts of the modifiable areal unit problem (MAUP) on social equity analysis of public transit reliability. *Journal of Transport Geography*, 106, 103500.
- Jimoh, R., Oyewobi, L., Isa, R., & Waziri, I. (2018). Total quality management practices and organizational performance: the mediating roles of strategies for continuous improvement. *International Journal of Construction Management*, 19(2), 162-177.
- Khan, M. A., & Salah, K. (2018). IoT security: Review, blockchain solutions, and open challenges. *Future generation computer systems*, 82, 395-411.
- Kioko, B. M., & Bwire, J. F. (2021). Influence of Change Management on Performance of Airlines in Kenya. *European Business & Management*, 7(4), 105.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610.
- Lin, C. P., & Liu, M. L. (2017). Examining the effects of corporate social responsibility and ethical leadership on turnover intention. *Personnel Review*.
- Liu, Q., Liu, Y., Wu, D., & Cheng, X. (2013, November). ICTNET at Temporal Summarization Track TREC 2013. In *TREC*.
- Lombardo, G. (2022). *The Self, Personality and FOMO: The Role of Individual Differences on Workplace Fear of Missing Out* (Master's thesis).
- Mayer, D. M., Aquino, K., Greenbaum, R. L., & Kuenzi, M. (2012). Who displays ethical leadership, and why does it matter? An examination of antecedents and consequences of ethical leadership. *Academy of management journal*, 55(1), 151-171.
- McMahon, J. F. (2021). Effects of Transformational Leadership on Safety Performance in the United States Commercial Trucking Industry.
- Mehak, N., & Siddiqui, D. A. (2020). Ethics Institutionalization and Employees Performance in Pakistan: The Role of Work-Life Quality. Available at SSRN 3756976.
- Mehmood, M. S., Jian, Z., Akram, U., Akram, Z., & Tanveer, Y. (2021). Entrepreneurial leadership and team creativity: the roles of team psychological safety and knowledge sharing. *Personnel Review*.
- Mo, S., & Shi, J. (2018). The voice link: A moderated mediation model of how ethical leadership affects individual task performance. *Journal of Business Ethics*, 152(1), 91-101.
- Moore, T. W., McTier, W. P., & Blevins, K. (2021). A Community at Work for Good: The Role OCBs and Interconnectedness Play in Mitigating Workplace Deviance. *Archives of Business Research*, 9(6).
- Mostafa, A. M. S., & Abed El-Motalib, E. A. (2020). Ethical leadership, work meaningfulness, and work engagement in the public sector. *Review of Public Personnel Administration*, 40(1), 112-131.
- Naeem, F., & Khurram, S. (2020). Influence of toxic leadership on turnover intention: The mediating role of psychological wellbeing and employee engagement. *Naeem, F., & Khurram, S. (2020). Influence of toxic leadership on turnover intention: The mediating role of psychological wellbeing and employee engagement. Pakistan Journal of Commerce and Social Sciences*, 14(3), 682-713.
- Nassazi, A. (2013). Effects of training on employee performance: Evidence from Uganda.

- Nauman, S., Zheng, C., & Basit, A. A. (2020). How despotic leadership jeopardizes employees' performance: the roles of quality of work life and work withdrawal. *Leadership & Organization Development Journal*.
- Oswald, D., Wade, F., Sherratt, F., & Smith, S. D. (2019). Communicating health and safety on a multinational construction project: Challenges and strategies. *Journal of construction engineering and management*, 145(4), 04019017.
- Ozcelik, E., Arslan-Ari, I., & Cagiltay, K. (2010). Why does signaling enhance multimedia learning? Evidence from eye movements. *Computers in human behavior*, 26(1), 110-117.
- Pandey, S., Chawla, D., & Puri, S. (2021). Food delivery apps (FDAs) in Asia: an exploratory study across India and the Philippines. *British Food Journal*.
- Qin, T., Li, P., & Shen, S. (2018). Vins-mono: A robust and versatile monocular visual-inertial state estimator. *IEEE Transactions on Robotics*, 34(4), 1004-1020.
- Qu, Y., Xu, Z., Sun, H., & Li, Q. (2022). The Effect of Self-Sacrificial Leadership on Employees' Organisational Citizenship Behaviour for the Environment: A Moderated Mediation Model. *International Journal of Environmental Research and Public Health*, 19(12), 7450.
- Regina, A., & Milita, V. (2017). Corporate social responsibility and human resource management. *ЗМІСТ З ПЛЕНАРНЕ ЗАСІДАННЯ*, 17.
- Ringle, C. M., & Sarstedt, M. (2016). Gain more insight from your PLS-SEM results: The importance-performance map analysis. *Industrial management & data systems*.
- Sabherwal, A., & Shreedhar, G. (2022). Stories of intentional action mobilise climate policy support and action intentions. *Scientific reports*, 12(1), 1-8.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. Pearson education.
- Schwepker Jr, C. H., & Dimitriou, C. K. (2021). Using ethical leadership to reduce job stress and improve performance quality in the hospitality industry. *International Journal of Hospitality Management*, 94, 102860.
- Sekaran, U., & Bougie, R. (2013). Edisi 6. *Research Methods for Business*.
- Shafique, I., Kalyar, M. N., & Rani, T. (2020). Examining the impact of ethical leadership on safety and task performance: a safety-critical context. *Leadership & Organization Development Journal*.
- Shafique, I., Kalyar, M. N., & Rani, T. (2020). Examining the impact of ethical leadership on safety and task performance: a safety-critical context. *Leadership & Organization Development Journal*.
- Shi, H., & Mohamed Zainal, S. R. (2022). Facilitating mindful safety practices among first-line workers in the Chinese petroleum industry through safety management practices and safety motivation. *International journal of occupational safety and ergonomics*, 28(3), 1584-1591.
- Singh, S. K., & Singh, A. P. (2018). Interplay of organizational justice, psychological empowerment, organizational citizenship behavior, and job satisfaction in the context of circular economy. *Management Decision*.
- Sullivan, G. M., & Feinn, R. (2012). Using effect size—or why the P value is not enough. *Journal of graduate medical education*, 4(3), 279-282.
- Syed-Yahya, S. N., Noblet, A. J., Idris, M. A., & Lee, M. C. C. (2022). Examining the role of supervisory and co-worker safety support in mediating the relationship between safety climate and safety performance. *Safety science*, 155, 105880.

- Taherdoost, H. (2016). Validity and reliability of the research instrument; how to test the validation of a questionnaire/survey in a research. *How to test the validation of a questionnaire/survey in a research (August 10, 2016)*.
- Tamminen, N. (2021). Mental health promotion competencies in the health sector. *JYU dissertations*.
- Urbach, N., & Ahlemann, F. (2010). Structural equation modeling in information systems research using partial least squares. *Journal of Information Technology Theory and Application (JITTA)*, 11(2), 2.
- Van Lieshout, M., Friedewald, M., Wright, D., & Gutwirth, S. (2013). Reconciling privacy and security. *Innovation: The European Journal of Social Science Research*, 26(1-2), 119-132.
- Walumbwa, F. O., Hartnell, C. A., & Misati, E. (2017). Does ethical leadership enhance group-learning behavior? Examining the mediating influence of group ethical conduct, justice climate, and peer justice. *Journal of Business Research*, 72, 14-23.
- Wilson, J., Hair, C., Knight, R., Catto-Smith, A., Bell, S., Kamm, M. ... & Connell, W. (2010). High incidence of inflammatory bowel disease in Australia: a prospective population-based Australian incidence study. *Inflammatory bowel diseases*, 16(9), 1550-1556.
- Ye, S., Yang, Y., Wang, W., & Zhou, X. (2022). Linking ethical leadership to employees' change-oriented organizational citizenship behavior: A multilevel moderated mediation model. *Social Behavior and Personality: an international journal*, 50(7), 1-14.