



ORIGINAL

The Role of Safety Management Systems in Improving Workplace Health and Organizational Success

El papel de los sistemas de gestión de la seguridad en la mejora de la salud en el trabajo y el éxito de las organizaciones

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ABSTRACT

Introduction: organizational initiatives aimed at improving workplace performance and safety currently includes the deployment of Safety Management Systems (SMS). SMS includes structured policies, procedures, and tools aimed at improving safety outcomes and reducing risks.

Objective: to investigate the effects of SMS on key workplace outcomes is the main aim of this research, including workplace health, safety culture, employee productivity, organizational financial performance, employee retention and satisfaction. The research also seeks to identify how safety culture mediates the relationship between SMS and these outcomes.

Method: data from 1028 participants were analyzed using various statistical techniques in AMOS software. The methods included correlation analysis to assess relationships between variables, chi-square test for categorical comparisons, multiple linear regressions to model the direct effects of SMS on dependent variables, and ANOVA for group comparisons based on SMS implementation levels. Structural Equation Modeling (SEM) was used to test complex relationships, including indirect effects mediated by safety culture.

Results: findings indicate that SMS implementation significantly improves workplace health, employee productivity, and organizational financial performance. Organizations with higher SMS maturity report better safety records, increased employee satisfaction, and improved financial performance.

Conclusions: the results underscore the importance of SMS in fostering a safer, more productive workplace. A strong SMS not only enhances workplace safety but also contributes to overall organizational success by improving employee well-being, retention, productivity and financial outcomes.

Keywords: Safety Management Systems; Workplace Health; Safety Culture; Employee Productivity; Organizational Success; Structural Equation Modeling (SEM).

RESUMEN

Introducción: las iniciativas organizativas destinadas a mejorar el rendimiento y la seguridad en el lugar de trabajo incluyen actualmente la implantación de Sistemas de Gestión de la Seguridad (SMS). Los SMS incluyen políticas, procedimientos y herramientas estructurados destinados a mejorar los resultados en materia de seguridad y reducir los riesgos.

Objetivo: investigar los efectos de los SGS en los resultados clave del lugar de trabajo es el principal objetivo de esta investigación, incluyendo la salud en el lugar de trabajo, la cultura de la seguridad, la productividad de los empleados, el rendimiento financiero de la organización, la retención y la satisfacción de los empleados. La investigación también pretende identificar cómo la cultura de la seguridad media en la relación entre los SMS y estos resultados.

Método: los datos de 1028 participantes se analizaron mediante diversas técnicas estadísticas en el programa AMOS. Los métodos incluyeron análisis de correlación para evaluar las relaciones entre variables, pruebas de chi-cuadrado para comparaciones categóricas, regresiones lineales múltiples para modelar los efectos directos de los SMS sobre las variables dependientes y ANOVA para comparaciones de grupos basadas en los niveles de implantación de los SMS. Se utilizó el modelo de ecuaciones estructurales (SEM) para probar relaciones complejas, incluidos los efectos indirectos mediados por la cultura de seguridad.

Resultados: los resultados indican que la implantación de los SGS mejora significativamente la salud en el trabajo, la productividad de los empleados y los resultados financieros de la organización. Las organizaciones con una mayor madurez en SMS presentan mejores registros de seguridad, mayor satisfacción de los empleados y mejores resultados financieros.

Conclusiones: los resultados subrayan la importancia de los SGS para fomentar un lugar de trabajo más seguro y productivo. Un SGS sólido no sólo mejora la seguridad en el lugar de trabajo, sino que también contribuye al éxito general de la organización al mejorar el bienestar, la retención, la productividad y los resultados financieros de los empleados.

Palabras clave: Sistemas de Gestión de la Seguridad; Salud en el Lugar de Trabajo; Cultura de Seguridad; Productividad de los Empleados; Éxito Organizativo; Modelización de Ecuaciones Estructurales (SEM).

INTRODUCTION

A safety management system (SMS) is often regarded as a tool designed and implemented to improve safety performance. However, the successful implementation of an SMS depends not only on its design but also on the people involved. The effectiveness of an SMS relies heavily on those responsible for establishing company policies and allocating resources. Therefore, fostering a strong safety culture within the organization is crucial for enhancing security outcomes alongside the implementation of SMS.⁽¹⁾ Organizations' SMS are designed to identify preventable risks, and continuously monitor and address potential or actual harm. These systems consist of key components such as, policy, organization, planning, execution, assessment and continuous improvement. The foundation of these systems is based on understanding complex interactions between people and variant agents can lead to risk and harm.⁽²⁾ SMS aimed to identify the key pillars and trade-offs are most prevalent in the operations of Polish businesses, in which both large and small were legally required to implement SMS. In response to contemporary management concepts, which heavily focused on productivity, efficiency, and effectiveness, proven inadequate during disruptions, resilience was also integrated into safety management.⁽³⁾

As the digital revolution accelerates the integration of information technologies into home, it enhances safety, comfort, and energy efficiency concerns. In the development of smart living environment incorporating interaction, monitoring and automation of SMS can provide the capability to perform integrated sensory analysis. This integration ensures safety consideration for individuals.⁽⁴⁾

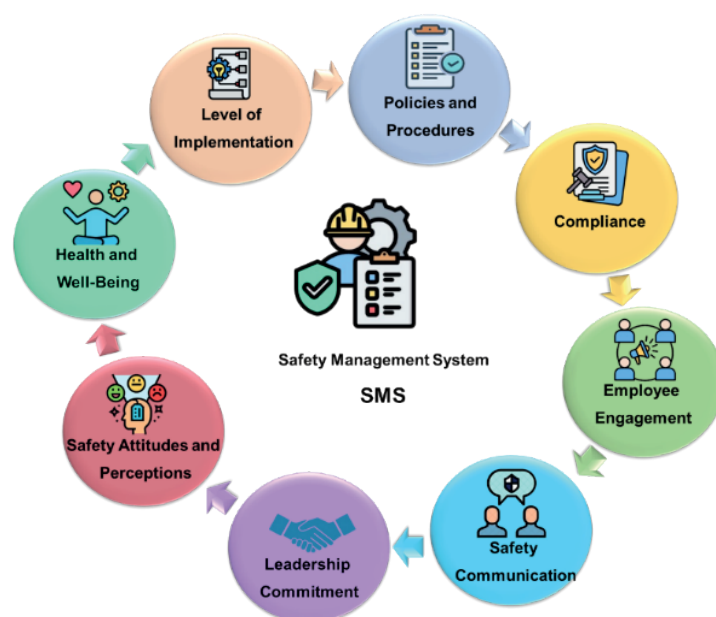


Figure 1. Conceptual framework for SMS introduction

The growing quantity and complexity of processing facilities and operations in the process sector have accelerated in response to the rising global energy consumption. These advancements have increased exposure to higher levels of risk, necessitating immediate action to ensure safety and mitigate potential hazards. Process safety failures can lead to consequences, including the loss of lives, environmental damage, property destruction, legal action, harm to the company reputation, and substantial financial losses.⁽⁵⁾

Hospitals remain focused on ensuring patient safety. Despite extensive efforts to provide safe care, patients yet experience adverse events during treatment. Medical professionals have worked extensively to enhance the safety of both patients and clinic staff. Hospital administrators have encouraged clinical staff to actively engage in safety management protocols as a key aspect of these initiatives. In addition to developing and implementing safety management protocols, standards, and training programs, administrator have also promoted the adoption of safety practices from other industries that prioritize safety. This ensures a comprehensive approach to risk management.⁽⁶⁾ Figure 1 shows the factors of the safety management system.

Research objective

The research aims to examine the impact of SMS, on various work place outcomes, including workplace health (WH), safety culture (SC), employee productivity (EP), organizational financial performance (OFP), employee retention (RE) and employee satisfaction (ES). Additionally, the investigation explores how safety mediates relationship between SMS implementation and these key workplace outcomes.

Related works

A framework that enabled effective comparison when selecting a process safety management (PSM) system tailored to the specific needs of an organization was developed.⁽⁷⁾ It examined the theoretical functions and industrial application of 21 PSM systems. The integrated process safety management system (IPSMS) model was almost reliable for ensuring comprehensive process safety; it was thought to be the most dependable for guaranteeing thorough process safety. The analysis focused on only one model, which left out important details of various industry demands.

The investigation focused on accidents, the economy, legislation, society, healthcare, and macro governance in industrialized countries.⁽⁸⁾ the most commonly applied model for comparing governance structures in nations was multiple differential governance. While engaging in multiple fostering interactions, these nations have diverse administrative system and framework. It was recommended that adopting a government led, multi subject collaborative management method with low cost improved its control over the health and safety of workers. The research only focused on developed nations, limiting its applicability to developing countries with different economic and governance structures.

The analysis employed fuzzy cognitive mapping (FCM) to assess the efficacy of the process within the occupational safety and health management system (OSH MS).⁽⁹⁾ A total of 16 items were created for the model, 15 of which represented different system operations and one of which represented safety performance. Simulations demonstrated that the effectiveness of leadership significantly improved safety performance, and suggested that the FCM enhanced the effectiveness of OSHMS. FCM simulations, while useful for modeling complex systems, may oversimplify dynamics by not accounting for all variables and interdependencies.

Almost, 155 responses across two companies were involved, to explore the relationship between senior executive safety management methods and safety behavior.⁽¹⁰⁾ The findings revealed that safety version positively influenced involvement, while safety concern possessed favorable impact on compliance. Additionally, individuality indirectly affected safety behavior. To enhance the safety performance, the report recommended taking steps to strengthen leadership in safety within organizations. It included fostering the culture of accountability and ensuring the safety leadership integrated into every level of organizations. Small sample size of 155 responses from only two organizations limited its generalizability to other industries. To examine the relationship between safety culture and organizational management characteristics within the colligative aviation program and access the influence of management practices and policies was the objective.⁽¹¹⁾ Quantitative analysis was conducted. The analysis focused on key organizational management characteristics and resilient safety culture within the collegiate aviation program. The research should find the reliability and construct validity in the measurements. The focus was limited to undergraduate aviation schools, and the cross-sectional nature made it difficult to capture informal interactions.

The effectiveness of process safety management (PSM) in the organizational sectors was examined.⁽¹²⁾ It utilized publicly accessible PSM performance statistics from the previous 25 years. The findings indicated that while PSM processes have become more advanced, certain underlying causes of incidents, such as system failures, human error posed significant challenges. The research identified critical gaps in the PSM programs. The research was solely based on the publicly accessible data, which may not fully represent the true scope of PSM internal working of organizations.

The investigation on how proactive safety practices affect small company hazard identification, safety management, and procedures in all small companies was done.⁽¹³⁾ Quantitative analysis was conducted to

collect data from small industries, statical methods, such as SEM to analyze the relationship between the variables. The result indicated the positive relationship between proactive occupational safety strategies (POSS), proactive occupational safety factor (POSF) and productive safety behavior, leading to improved safety management. The model was limited by cross sectional design, which restricted the ability to infer causality between the variables.

To determine the most important elements impacting SMS, an analysis was performed by analyzing the risks associated with energy investments and SMS using a hybrid interval-valued intuitionistic fuzzy (IVIF) decision technique. ⁽¹⁴⁾ The IVIF approach was applied to handle uncertainties in decision making process. The findings revealed that the hybrid decision making process provided logical and reliable outcome for prioritizing SMS components and managing risks. The reliance on the judgement of decision making introduced bias into ranking and weighting process.

The identification and mitigation of occupational health and safety hazards was the main goal to evaluate the effect of workplace hazards on safety in small enterprises. ⁽¹⁵⁾ The research utilized direct interview and propagator questionnaires to collect data from employees in small organizations. The results were compared with the data from European agency for safety and health at work to evaluate and identify the psychophysical risk in organizations. The finding demonstrated that physical and psychophysical variables were the primary occupational hazards in small organizations. The research limits reliance on self-reported data from interviews and questionnaires, which may lead to inaccuracies.

The differences between behavioral safety, participatory ergonomics, and important participatory safety management techniques were explored. ⁽¹⁶⁾ It provided a comprehensive understanding of safety management through participation. Participatory ergonomics and behavioral safety were examined using a qualitative method. The analysis revealed that both variables share the common principles, including worker involvement, continuous improvement, and proactive risk management. The integration offered the more holistic approach to safety management by aligning human behavior and ergonomic design. It primarily relied on secondary sources, which limited the scope of perspective.

METHOD

The present investigation involved analyzing data from 1028 participants using AMOS software. The variables considered included workplace health (WH), safety culture (SC), employee productivity (EP), organizational financial performance (OFP), employee retention (ER) and employee satisfaction (ES). To assess the impact of the SMS on these various workplace outcomes, a combination of statistical techniques was effectively utilized, including multiple linear regression models, ANOVA, chi-square test, and SEM analysis. The analyses were conducted to assess the relationship between SMS and the identified workplace variables.

Hypothesis development

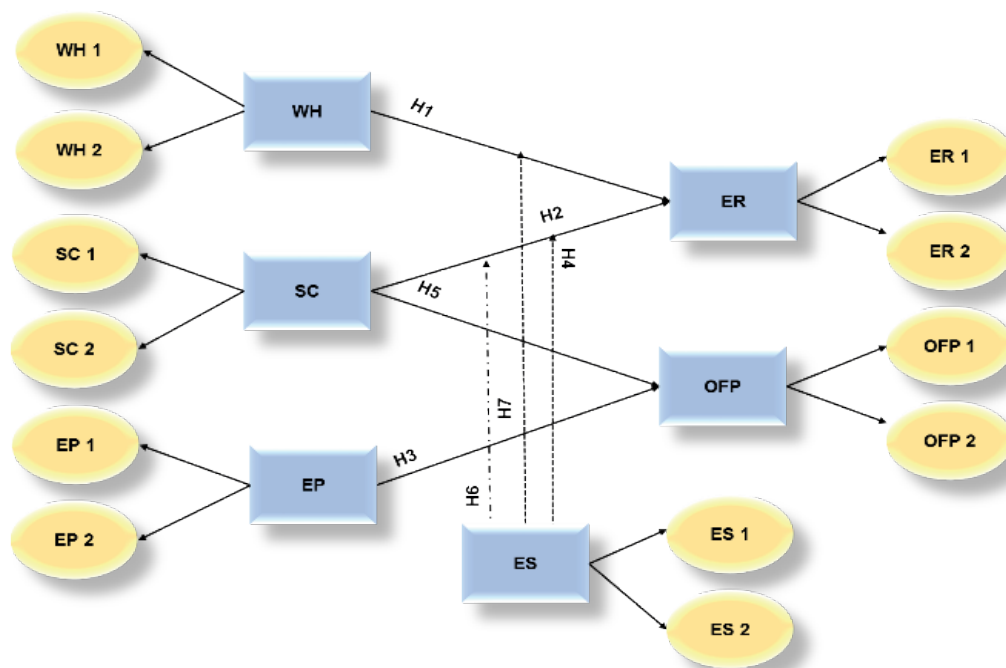


Figure 2. Conceptual framework for hypothesis

The development of hypothesis in the research focuses on exploring the direct effects of SMS on workplace outcomes such as health, productivity and financial performance. The hypotheses used in the research are as follows:

H1: Workplace health (WH) has a direct positive impact on employee retention (ER).

H2: Safety culture (SC) positively influences employee retention (ER) through its impact on employee satisfaction (ES).

H3: Employee productivity (EP) positively impacts organizational financial performance (OFP).

H4: Employee satisfaction (ES) mediates the relationship between workplace health (WH) and employee retention (ER).

H5: Safety culture (SC) enhances organizational financial performance (OFP) by improving employee productivity (EP).

H6: The relationship between employee productivity (EP) and organizational financial performance (OFP) is moderated by employee satisfaction (ES).

H7: Workplace health (WH) positively influences employee retention (ER), with employee satisfaction (ES) acting as a mediator. Figure 2 shows the conceptual framework of the developed hypotheses.

Variables

Certain variables are used to analyze the relationship between SMS and the identified workplace variables. The description for each variable is represented in table 1.

Table 1. Description of key variables in SMS	
Variables	Definition
SC	The shared values, beliefs, and attitudes towards safety within an organization, influencing behavior and decision-making.
WH	The overall state of physical and mental strength in the workplace, including the frequency of, illnesses, and near-misses.
EP	The impact of safety systems on employees' work performance, efficiency, and output.
OFP	The effect of SMS implementation on financial outcomes such as cost savings, profitability, and return on investment.
ER	The impact of SMS on employee job satisfaction, morale, and retention rates.
ES	The overall continent of employee with their work environment, job roles, compensation, and work place safety measures.

Data collection

Data were collected from 1028 participants focusing on various demographic factors including age, gender, education level, occupation, safety management experience, occupation, work place size, and SMS implementation. The participants' demographic information is presented in table 2.

Table 2. Demographic details of the participants		
Demographic Variable	Category	Frequency (n=1028)
Age	18-24 years	210
	25-34 years	305
	35-44 years	250
	45-54 years	175
	55 years and above	88
Gender	Male	540
	Female	488
Educational Level	High School or Below	175
	Bachelor's Degree	526
	Master's Degree	220
	Doctoral Degree	107
Occupation	Employee (full-time)	688
	Employee (part-time)	150
	Self-employed	85
	Student	105

Safety Management Experience	No Experience	263
	Basic Experience	374
	Advanced Experience	391
Workplace Size	Small (<50 employees)	220
	Medium (50-249 employees)	428
	Large (250+ employees)	380
SMS Implementation Level	Low	273
	Moderate	432
	High	323

Questionnaires

The questions used in the analysis were designed to collect data on how SMS is improving workplace health and organizational success. Table 3 shows the variables-based questionnaires.

Table 3. Questionnaires' for key variables		
Variables	Questions	
WH	WH1: How would you rate the overall health conditions at your workplace?	
	WH2: Do you have access to health-related resources (e.g., wellness programs)?	
SC	SC1: How would you rate the safety culture at your workplace?	
	SC2: Are safety policies and procedures clearly communicated?	
EP	EP1: How often do you feel productive at work?	
	EP2: Do safety concerns affect your productivity?	
OFP	OFP1: How do you perceive the financial stability of your organization?	
	OFP2: Has SMS implementation led to cost savings or financial improvements?	
ER	ER1: How likely are you to stay at your current organization in the next year?	
	ER2: Do you feel your workplace safety influences your decision to stay?	
ES	ES1: How satisfied are you with your current job?	
	ES 2: Does a strong safety culture increase your job satisfaction?	

A Likert scale is an analytical instrument frequently used in research to measure attitudes, opinions, or perceptions. It evaluates participants' perceptions of the SMS on workplace outcomes. Likert scale is commonly employed to measure factors such as safety culture, employee satisfaction, and SMS effectiveness. Strongly disagree to strongly agree responses are scored on a five-point Likert scale.

Statistical Tools

The research employs AMOS software and SEM to analyze the relationship among SMS, EP, SC and organizational outcomes. SEM enables the assessment of both direct and indirect effect between the variables. Multiple linear regression analysis explores the direct effect of SMS on key workplace variables, while Analysis of Variance (ANOVA) is applied to compare group difference based on SMS implementation level. The analysis validates the model's offering insight into SMS impact on productivity and performance.

- ANOVA is used to assess the impact of SMS on various organizational outcomes, specifically comparing the variables across the different level of SMS implementation. ANOVA allows the comparison of these to determine whether significant differences exist in the workplace outcomes.
- Multiple linear regressions is the statistical technique used for analyzing the connection between several autonomous variables and a dependent variable. Simulating and measuring the independent factors influencing the dependent variable is its primary objective. Regression analysis is essential for data-driven decision-making because it can be used to forecast results, spot trends, and assess the type and strength of correlations.
- SEM analysis is a method used for analyzing the direct and indirect interactions between variables. By enabling this path analysis, researchers assess intricate causal pathways and moderating effects. It illustrates how variables affect one another by using path diagrams to graphically depict the interactions between independent, dependent, and mediating factors. Path analysis offers a more profound understanding of the mechanisms behind observed occurrences by examining multiple interactions at once.

- Correlation analysis is the statistical analysis that is used to discover if there is a relationship between the variables, and provide the strong relationship among the variables. Essentially, correlation analysis is used for spotting pattern. An optimistic correlation results in both variable increases in relation to each other, while an adverse correlation means that as one variable decreases, the other increases.
- Chi-square is used to assess if categorical variables significantly correlate with one another. It contrasts the actual frequency of an event with the frequency predicted by a particular hypothesis. A significant difference is shown by a chi-square value, whereas no relationship is suggested by a low value.

RESULTS AND DISCUSSION

This part highlights response recordings and illustrations while presenting the analysis results using quantitative and structural models. The ANOVA analysis for a number variable is displayed in table 4.

ANOVA

Source of Variation	Variables	SS	DF	MS	F	p-value
Between Groups (SMS Levels)	WH	350,4	4	87,6	5,21	0,003
	SC	400,1	4	100,03	6,01	0,002
	EP	250,7	4	62,67	3,79	0,015
	OFP	300,5	4	75,13	4,34	0,008
	ER	220,8	4	55,2	3,51	0,020
	ES	275,3	4	68,83	4,58	0,006
Within Groups (Error)	All Variables	1800,9	1023	1,76	-	-
Total	All Variables	2151,8	1027	-	-	-

The Sum of Squares (SS) measures the variance within and across groups. The number of independent observations is indicated by the Degrees of Freedom (DF). The calculation of Mean Square (MS) involves dividing sum of square (SS) by DF. The p-value evaluates the reliability of the statistic, and the F-Statistic (F) calculates the ratio of variability within a group to between-group variability. Every variable has results that are significant ($p\text{-value} < 0,05$), signifying that there are substantial differences between groups for each variable.

Multiple linear regression

The results obtained by implementing multiple regression analysis are portrayed in table 5.

Variables	B	B	SE	t-value	p-value
WH	0,45	0,31	0,08	5,63	0,001
SC	0,32	0,27	0,07	4,57	0,0003
EP	0,56	0,41	0,09	6,22	0,001
OFP	0,28	0,21	0,06	4,67	0,002
ER	0,39	0,33	0,07	5,57	0,0001
ES	0,51	0,43	0,08	6,38	0,0001
Constant (Intercept)	1,12	-	0,21	5,33	0,002

For every unit change in each independent variable, the individualized coefficients (B) display the change in the variable that is dependent. Each predictor's strength in comparison is represented by its standardization coefficient (B). The t-value and p-value assess each coefficient's significance, while the standard error (SE) indicates how accurate the coefficients are. With the greatest standardized coefficient ($B = 0,41$) for employee productivity (EP), all variables exhibit significant associations ($p\text{-value} < 0,001$). Table 6 shows the correlation analysis for the variables and figure 3 represents the correlation matrix.

Table 6. Correlation Analysis for SMS						
Variables	WH	SC	EP	OFP	ER	ES
WH	1,00	0,45	0,62	0,38	0,56	0,70
SC	0,45	1,00	0,49	0,52	0,63	0,76
EP	0,62	0,49	1,00	0,72	0,65	0,80
OFP	0,38	0,52	0,72	1,00	0,54	0,70
ER	0,56	0,63	0,65	0,54	1,00	0,78
ES	0,70	0,76	0,80	0,70	0,78	1,00

	WH	SC	EP	OFP	ER	ES
WH	1.00	0.45	0.62	0.38	0.56	0.70
SC	0.45	1.00	0.49	0.52	0.63	0.76
EP	0.62	0.49	1.00	0.72	0.65	0.80
OFP	0.38	0.52	0.72	1.00	0.54	0.70
ER	0.56	0.63	0.65	0.54	1.00	0.78
ES	0.70	0.76	0.80	0.70	0.78	1.00

Figure 3. Correlation analysis for SMS key variables

Since all of the diagonal values are 1, there is complete connection between them. Off-diagonal values, which range from 0,38 to 0,80, indicate moderate to strong positive correlations. These values show the direction and intensity of associations between pairs of variables. ES and SC (0,76) and EP and ES (0,80) have the strongest connections.

Measurement model fit

In a structural equation model, a measurement model establishes the connection between latent constructs (factors) and measured variables (indicators). Factor loadings, which indicate the magnitude of the correlations, are commonly included in this model. It is crucial to guaranteeing the dependability and validity of the constructions being assessed. CR is the composite reliability and average variance reliability is called AVE. Table 7 exhibits validity and reliability data. In addition, Figure 4 shows the measurement model efficiency.

Table 7. Reliability and validity statistics for measurement construct and indicators					
Variables	Indicator	α	Factor Loading	CR	AVE
WH	WH1	0,82	0,78	0,86	0,72
	WH2		0,82		
SC	SC1	0,83	0,85	0,88	0,74
	SC2		0,80		
EP	EP1	0,80	0,84	0,89	0,75
	EP2		0,79		
OFP	OFP1	0,79	0,77	0,84	0,70
	OFP2		0,80		
ER	ER1	0,81	0,83	0,87	0,73
	ER2		0,79		
ES	ES1	0,85	0,86	0,90	0,76
	ES2		0,84		

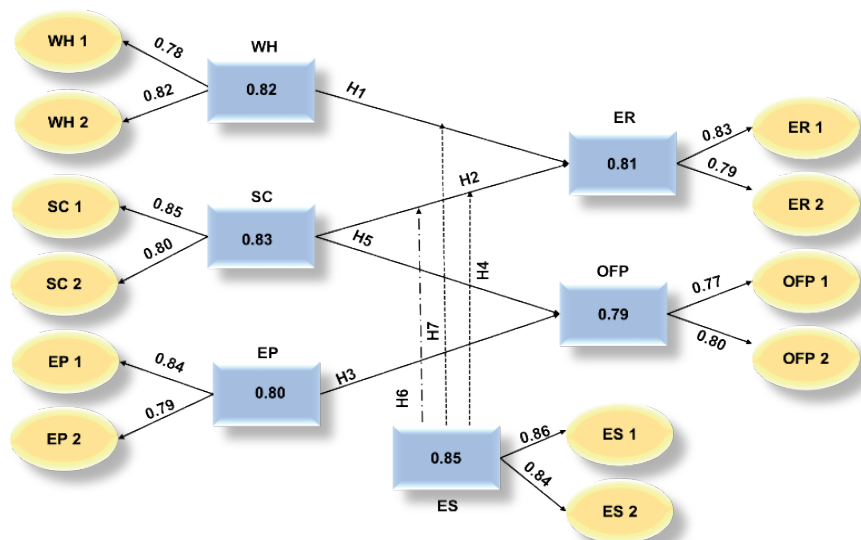


Figure 4. Measurement model evaluation for the construct SMS variables

Strong internal consistency is indicated by α values that are higher than the permissible cutoff of 0,7. Good indicator quality is indicated by factor loadings greater than 0,75. The robustness of the measures is ensured by CR values more than 0,80, which validate construct accuracy and validate convergent validity.

Path Analysis

The outcomes obtained for hypothesis testing is represented in Table 8. Furthermore, the modelling of path analysis is shown in figure 5.

Hypothesis	Coefficient of Path	t-value	p-value	R ²	Standard Error (SE)	Result
H1: WH → ER	0,45	6,32	< 0,001	0,62	0,070	Well-Supported
H2: SC → ER	0,38	5,15	< 0,001	0,58	0,065	Well-Supported
H3: EP → OFP	0,50	7,45	< 0,001	0,67	0,060	Well-Supported
H4: ES mediate WH→ER	0,42	5,70	< 0,001	0,61	0,072	Well-Supported
H5: ES → ER	0,37	5,09	< 0,001	0,59	0,075	Well-Supported
H6: SC → OFP moderated by EP	0,33	4,88	< 0,001	0,55	0,079	Supported
H7: WH → ER mediated by ES	0,40	5,32	< 0,001	0,60	0,078	Well-Supported

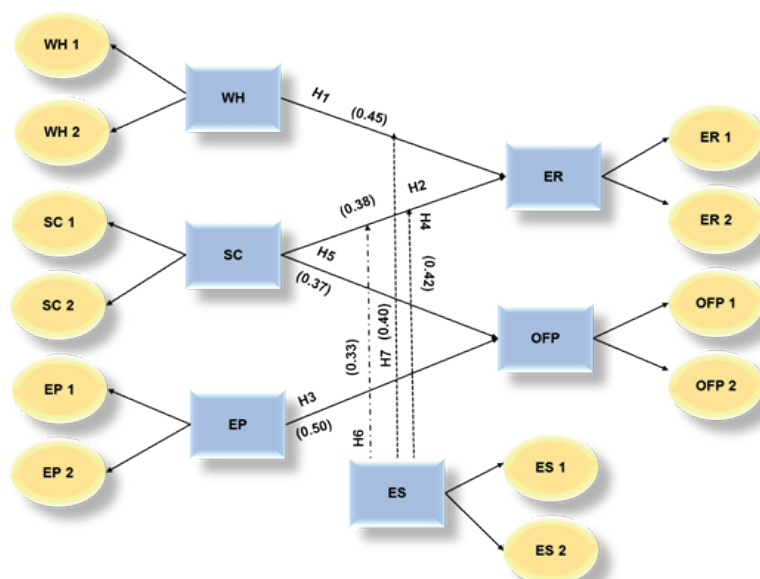


Figure 5. Illustration model for path analysis

The path coefficient, t-value, p-value, R^2 standard error (SE), and the hypothesis's level of support are all included in each hypothesis. With high R^2 values suggesting excellent model fit, all hypotheses exhibit statistically significant results (p-value < 0,001), and most are categorized as "Well-Supported," with the exception of H6, which is supported.

Chi-square

The chi-square test results for the different identified variables are shown in table 9.

Hypothesis	Chi-Square Value (χ^2)	Degrees of Freedom (DF)	p-value	Significance Level
WH	12,34	3	0,004	Significant
SC	10,56	3	0,012	Significant
EP	15,78	4	0,001	Significant
OFP	9,23	3	0,026	Significant
ER	11,89	3	0,008	Significant
ES	14,56	4	0,003	Significant

The link between observed and predicted frequencies is tested using the chi-square values (χ^2). DF represents the number of independent categories. P value indicates statically significance, and all hypothesis show significant results (value < 0,05), confirming that the relationship tested are meaningful at the significance level.

DISCUSSION

This section discusses the findings, providing a better understanding of the relationship between key factors. ANOVA analysis reveals the significant differences, indicating variability across the variables. All of the coefficients in multiple linear regressions are statistically significant, demonstrating the predictors' substantial influence on the dependent variable. The results of correlation analysis show that there are moderate to strong positive associations between the variables, with some pairs exhibiting the highest correlations. These strong correlations are confirmed by SEM analysis, which demonstrated high model fit and robust route coefficient. Finally, the chi-square test validates the relationships and reaffirms the importance of these interactions.

CONCLUSIONS

The impact of SMS on key workplace outcomes was analyzed, including workplace health, safety culture, employee productivity, employee retention and employee satisfaction. Using data from 1028 participants and employing statistical techniques such as correlation analysis, chi-square tests, multiple regression analysis and SEM, the results showed that SMS implementation significantly improved safety and productivity outcomes. Further, the research highlighted that safety culture mediated the relationship between SMS and these outcomes. Organizations with higher SMS reported better safety records, increased employee satisfaction, and enhanced financial performance. The resilience on cross-sectional data may limit the ability to observe long term effects. Future research could explore the sustained impact of SMS over time and across different organizational contexts.

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CONFLICT OF INTEREST

None.

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