

Exploration of employee priority and culture equity and performance in the selected multinational organisation in Saudi Arabia: an occupational accidents perspective.**Chileshe Muselela¹, Liberty Mweemba² and Kaiko Mubita³**

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Abstract

The multiple case studies explored and examined the relationship between safety culture and Occupational Health and Safety performance from the perspective of an occupational accident and adopted a mixed-method approach to delivering a complete explanation of the phenomena. The study was conducted in Saudi Arabia in an organisation to examine whether safety culture directly impacts the OHS performance or not. The study examined the realism of prioritisation and equity culture preferences of an organisation's OHS management system given employees' perceptions, attitudes, and behaviours.

At the time of the study, despite implemented policies and enforced legal requirements by both the government and the organisation, there was an increased level of fatalities, injuries, and property damages. Despite stringent measures, a public outcry drove the need to understand the increased death rate. In 2019 statistics, the organisation recorded 63 fatalities which economically cost an enormous amount of \$27.3m attributed to direct cost.

The qualitative research adopted the "research onion concept" to socially construct knowledge. It was characterised by interpretivism and complemented by post positivism as a mixed-method approach. The exploration was based on the adopted culture model dimension integrated within the organisational practices (OHS management system). The descriptive and interpretive research design applied an inductive and context analysis for the organisation's five years of data performance through a grounded theory, self-administered questionnaires, focused group participant interviews, and non - participant observations gathered through interactive and interlocked group discussion.

The study identified significant conflicts in prioritisation between employee priorities against the organisation's perceived priorities. It also identified conflicts in culture equity with employees' perceived barriers and positives. The two findings considered as root causes closed the gap where no research was conducted within KSA that attempted to examine personal prioritisation and culture equity in relation to culture and occupational accidents.

While the research correlated with past research studies do not affirm their findings but view them as insufficiently investigated. The findings provided a base for new knowledge in addition to the past research as results indicated that the non-recorded lagging indicators (zero accidents rate) do not represent employees' satisfaction within the established processes.

The results show that zero accidents/incident rate does not stand for employees' satisfaction. Therefore, OHS performance cannot predict safety culture, nor can safety culture be a single predictor of an organisation's OHS performance. The study also shows that 'individual culture is a predictor and directly impacts an organisation's safety performance this conclusion signified the importance of 'individual culture' over 'safety culture' or organisational culture.

Recommendations included avoiding prescriptive OHS systems, migrating from a stand-alone to a continual, improvement system of the Plan, doing a check and act cycle, and exploring ways to reduce errors and influence behaviours. Others included investment in a competency program (Plan, do, check, and act cycle approach), implementation of a 'just culture' and transferable leadership skills and exploration of Psycho-social improvements, and organisational development, e.g., social learning.

Key Words: Safety culture; performance; Priority and culture equity; individual culture

1. Introduction

Culture could be summarised as all formal and informal community behaviours for a perceived identity. It is aligned with social values embroiled in organisational culture (Buchanan & Huczynski, 2010). It has been recognised as a critical influencer component of organisational culture (Kotter & Heskett, 2011). Since the 1990s, 'culture' had been projected as an element of every management system. The broader range of elements entails why culture had been considered a conceptualised theory due to its unclear definition despite various researchers and scholars' attempts. Kroeber and Kluckhohn (1978) defined culture as patterns of behaviour acquired and transmitted by various media of human groups, including their embodiment in artefacts.

Avruch (2000) defined culture as a concept-driven by experiences that people may have undergone and framed in a systematised way and acts as a conduit for their future reactions to situations. It can either be considered as an individual or a population. Therefore, it is worth noting that culture may be considered a group of people's attributes, such as shared values, attitudes, ideologies, and beliefs (Schneider & Barsoux, 2003). These attributes will reflect how people or individuals will behave, both at work and in their social life outside work.

From an industrial perspective, culture is forcefully driven for a positive change to create an impact on employees' interests and values (Wheelen and Hunger, 2006). Studying the 'exploration of safety culture and OHS performance had many considerations. It included examining the organisation's degree of influence on their employees' attitudes and perceptions of occupational health and safety (OHS). The organisation examination covered employees' behaviours while working within and outside organisation environments.

1.1 Problem Statement

A study conducted by Sherrat (2014) states that encompassing several integrated elements involving all stakeholders will realise zero injuries and fatalities. It is focused on the 'safe person and safe work approach. Having a goal to achieve the zero target is not only treated as an integral part of the OHS management system but is complementary to having an accident-free working environment.

The study was performed in an environment where there were more live operations with high exposure to hazards and risks. The environment created a basis for exploration since examining occupational health and safety culture was critical to the organisation and the public.

With 24 hours, seven days a week operation of distributions covering over and beyond 50 million km/month coupled with other operational risks, the organisation aimed and endeavoured to achieve and sustain improvements in health and safety as part of its corporate social responsibility.

The organisation believes that if employees are motivated, they will be more productive and innovative and follow detailed safety instructions. It was on an account that leaders and managers of an organisation should display active visual leadership. Flin et al. (2000) and Yule and Flin (2002) stated that it inevitably cascades down to the workforce when the 'belief' is attained. This act was key to the organisational safety culture because culture is predominately established by the management practices that exist within the organisation. However, despite all investment in OHS measures, the rate of injuries and fatal accidents involving employees and the public had increased over five years and was not reducing (figure 1).

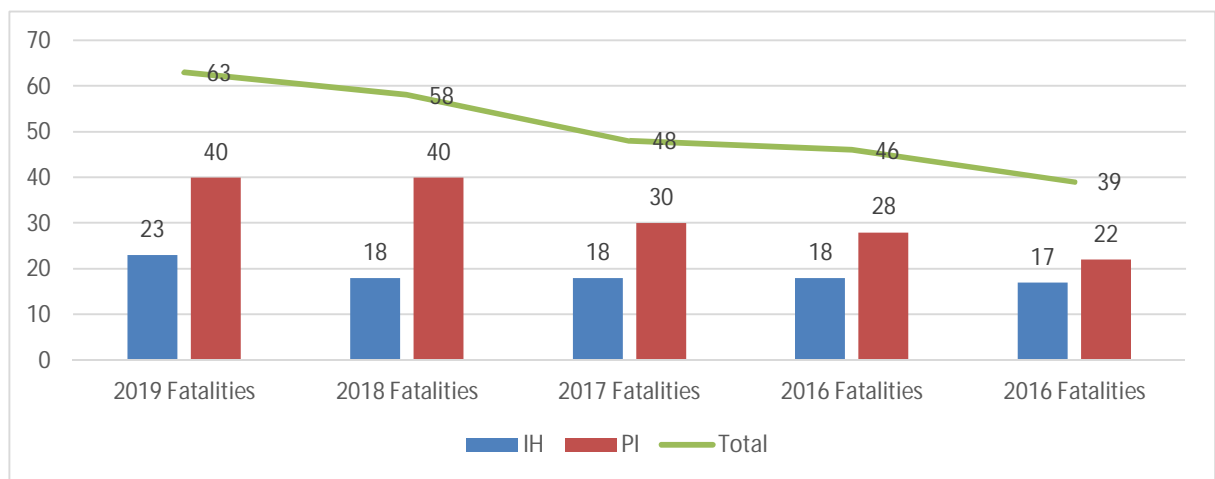


Figure 1 Organization OHS Performance statistics - Fatalities.

As illustrated by the 2019 statistics, the organisation recorded 63 fatalities which economically cost an enormous amount of \$27.3m attributed to direct cost. At the time of the study, the organisation's safety culture and poor OHS performance were still unknown. They had not been explored to examine the relationship between culture and the increased number of occupational accidents, hence this study

1.2 Aim

The study explored a relationship between safety culture and OHS performance for an organisation based in Saudi Arabia. It is to ensure that the prevention of occupational fatalities of workers and other public members who may be affected by the organisation's operation can be achieved. The exploration was conducted from an 'occupational accidents' perspective and examined whether safety culture directly impacts the OHS performance or not.

1.3 Objective

The objective of this study was to:

- (a) to examine employee priorities against the organisation's perceived priorities by establishing conflicts
- (b) to examine employee perceived barriers and positives by establishing conflicts in culture equity.

1.4 Significance of the study

Understanding the impacts of the OHS culture (values and practices) on occupational health and safety performance concerning occupational accidents was critical and beneficial. At the time of the study, no OHS culture study had been conducted within the Kingdom with occupational accidents. Therefore, findings act as a new credible knowledge base and a basis to advance organisational policy formulation for the company and other similar industries wanting to enhance OHS performance.

It is undoubtedly that the organisation and other similar industries will benefit by achieving a sustainable and continued system improvement as required by the ISO 45001: 2018 OHS Management system. Specific benefits include eliminating all work-related fatalities and reducing the time injury severity rate (LTISR) and the frequency of lost time injury (LTIFR), indirect and direct costs incurred on property damages, medical expenses, claims, and insurance premiums. Globally, from an audit perspective, the study will showcase a platform for integrating an in-depth cultural assessment within an ISO 45001:2018 OHSMS audit process. It will establish a complete assessment and measurement of the effective implementation of the overall management system, which, unlike the previous ohs cultural studies, did not.

1.5 Theoretical Framework

The study aimed to explore and examine the relationship between safety culture and OHS performance from an occupational accident perspective. The research focused on understanding the relationship of safety culture dimensions to assess employees' behaviour towards safety and health. It was to ascertain any association of individuals' preferences impacts the organisation's overall OHS performance. The study arose from controversies surrounding various contradictory research findings on the relationships between safety culture and an organisation's safety performance. Fernandez-Muniz et al. (2007) stated that reducing accident and incident rates provide the best measure of the safety culture. In another research, Otitolaiye (2021) research findings indicated that safety culture and safety management system positively correlated with safety performance. Contrarily, this theory with the dimensions employed was argued by other four researchers. Richter and Koch (2004) illustrated safety culture as not a predictor of safety and health performance. In addition, Everon (2010) stated that his research did not "link accident rates to the safety cultures. His findings indicated that combined Safety culture values and practices scores did not predict 2009 OSHA, LTA, and severity rates (ibid). In another research, Kusumawati (November 2021) stated that safety culture and the maturity index alone could not predict safety performance. The common aspect of the past research is that they did not attempt to explore the underlying causes, aligned with Khan et al. (2010). While the existence of research contradictions, the research was conducted to address the gap by further exploring the causal findings of past research to identify root causes.

Therefore, the research findings addressed the gap in past research that did not examine and establish root causes by exploring personal prioritisation and culture equity in relation to culture and occupational accidents. Because past research did not explore causal factors further, this research considers his research inconclusive as it did not address the root.

In order to address the research gap in the methodological process done by past research such as Khan et al. (2010), a model was integrated and interrelated for this research into the implemented OHS Management system as the system was based on a continual improvement approach of a PDCA concept. The collated data was then triangulated with KPIs variables to ascertain whether the conflicts impact the effectiveness of an occupational health and safety system and OHS performance.

The model applied was the Excellence culture (André, 2019) model based on norms that form part of examinable dimensions for beliefs and values. The model states that shared norms, beliefs, and values affect employees' psychological behaviours. The model is designed to evaluate the effects and distinguish individual cultural preferences. The model dimensions allowed the research to explore and examine the safety culture within an organisation to understand the preferential conflicts. Admittedly, this approach validated the purpose of this research conducted in Saudi Arabia.

2. Methodology

The multiple case studies explored and examined the relationship between safety culture and occupational health and safety performance from the perspective of an occupational accident and adopted a mixed-method approach to explore the two objectives. The study adopted an Excellence culture model that consisted of four research categories and dimensions. The categories focused on people, process, purpose, and proactivity. These made up the four broad areas of safety and health within the organisation features that affected the prevailed safety and health attitudes and practices.

2.1 Perceived priorities

In order to examine the conflicts in prioritisation with employee priorities against the organisation's perceived priorities, a self-administration questionnaire of Priority Ranking was used. This is the view of the demographic combinations with the highest and lowest priority ranking. The Priority ranking quantitative data represented the overall rating and a total count for all elements under each category where the perceived rankings is known to establish prioritisation conflicts and was an important predictor of risk.

2.2 Culture equity

In order to examine the conflicts in culture equity with employees' perceived barriers and positives, a self-administered questionnaire of Perceived cultural barriers against perceived cultural positives was used. It was prudent for the study to establish employees' perception of 'barriers and positives' to fully understand and relate reflected on employees' perceived cultural barriers and positives within the existing implemented systems while considering.

3. Findings

3.1 Perceived priorities

Perceived priorities against the organisation's perceived priorities were examined to establish conflicts in prioritisation through self-administration questionnaires. The Priority

ranking quantitative data represented the overall rating and a total count for all elements under each category.

Table 1 Summary of Study group study case comparison – Priorities

Group	Company	Personal	OHS Performance
One	low - production costs, medium - production speed high - employees' health and safety	low - production costs, medium - production speed high - employees' health and safety	25.32
Two	high - production costs, high - production speed high - employees' health and safety.	medium - production cost, medium - production speed high - employees' health and safety	15.20
Three	medium - production costs medium - production speed high - employees' health and safety.	Medium - production cost, Medium - production speed high - employees' health and safety.	22.85
Four	low - production costs low - production speed low - employees' health and safety	low - production costs low - production speed low - employees' health and safety	10.92
Five	high - production costs, high - production speed high - employees' health and safety.	high - production costs, high - production speed high - employees' health and safety.	4.05
Six	high - production costs, high - production speed high - employees' health and safety.	high - production costs, high - production speed high - employees' health and safety.	9.77
Seven	high - production costs, high - production speed high - employees' health and safety.	medium - production costs, high - production speed high - employees' health and safety.	0.00

Table 1 illustrates the group comparison with reference to a preliminary examination of data collated and performed to identify and detect patterns. The outcome of group comparison with reference to OHS performance shows that group one recorded a satisfactory response perspective where employees' safety was 'high. However, the accident rate was the highest at 25.32 compared to all groups. With reference to group seven under the 'company' perspective, where a similar response was recorded in groups two, five and six, a zero-rate performance was recorded. Similarly, in a review of group four, where employees' health and safety were rated low in both perspectives, the incident rate was 10.92 compared to group one, with a high rate on employees' health and safety at 25.32 in group one.

The findings from the group comparison could not establish a pattern that would predict the safety and health performance and established new findings of establishing priority conflicts within groups. Therefore, no pattern could be established as a zero-accident rate did not represent employee satisfaction. The implication suggests that organisations that are likely to be inclined to this finding and primarily affected are those where the organisation’s cultural image is attained and upheld by the ultimate accountability of employees.

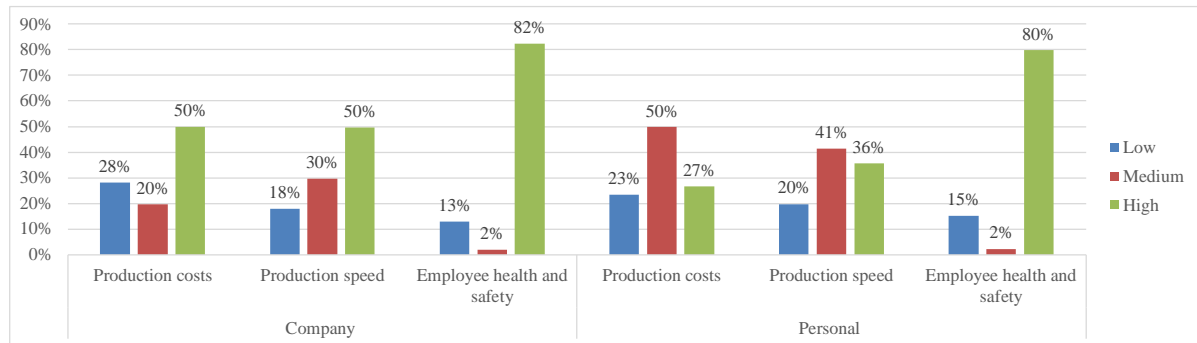


Figure 2 demographic Priority Ranking

Under the company perceived ranking, responders indicated a high perception score focused on production costs, production speed and a high score on employees' health and safety. However, responders indicated a medium score focused on production costs and speed, with a high score on employees' health and safety. Substantial findings in conflicts were identified in groups 2 and 7, and a low perception was recorded in group 4.

Considering the factors that influences safety culture, the study identified findings and conflicts in prioritisation between employee priorities against the organisation's perceived priorities. It closed the gap that no research was conducted within KSA that attempted to understand examine personal prioritisation and the perceived company prioritisation concerning culture and occupational accidents.

3.2 Culture equity

Culture equity was examined to establish conflicts in culture equity with employees' perceived barriers and positives through self-administered questionnaires. It was prudent for the study to establish employees’ perception of ‘barriers and positives’ to fully understand and relate reflected on employees’ perceived cultural barriers and positives within the existing implemented systems while considering.

Table 2 Summary of Study group study case comparison – equity

Group	Positives	Barriers	OHS Performance
One	time incentives and benefits, multicultural workforce, accountability and responsibility, staff turnover, physical space/premises, technology	training and communication management commitment, provisions of PPE nutritious food	25.32

Two	training and communication, incentives and benefits management commitment physical space/premises, technology	time multicultural workforce accountability and responsibility staff turnover.	15.20
Three	time training and communication Incentives and benefits management commitment accountability and responsibility technology	multicultural workforce physical space/premises staff turnover provisions of PPE	22.85
Four	time training and communication management commitment accountability and responsibility, technology	incentives and benefits multicultural workforce physical space/premises staff turnover	10.92
Five	Time Training and communication management commitment accountability and responsibility technology incentives and benefits multicultural workforce physical space/premises staff turnover		4.05
Six	time training and communication management commitment accountability and responsibility technology	incentives and benefits multicultural workforce physical space/premises staff turnover open-door policy	9.77
Seven	training and communication, management commitment accountability and responsibility physical space/premises.	Time incentives and benefits multicultural workforce staff turnover technology	0.00

Figure 3 illustrates the overall demographic perceived cultural barriers and the perceived cultural positives selected by participants from seven groups. The graph indicates the percentages of total number of responders for the entire study group.

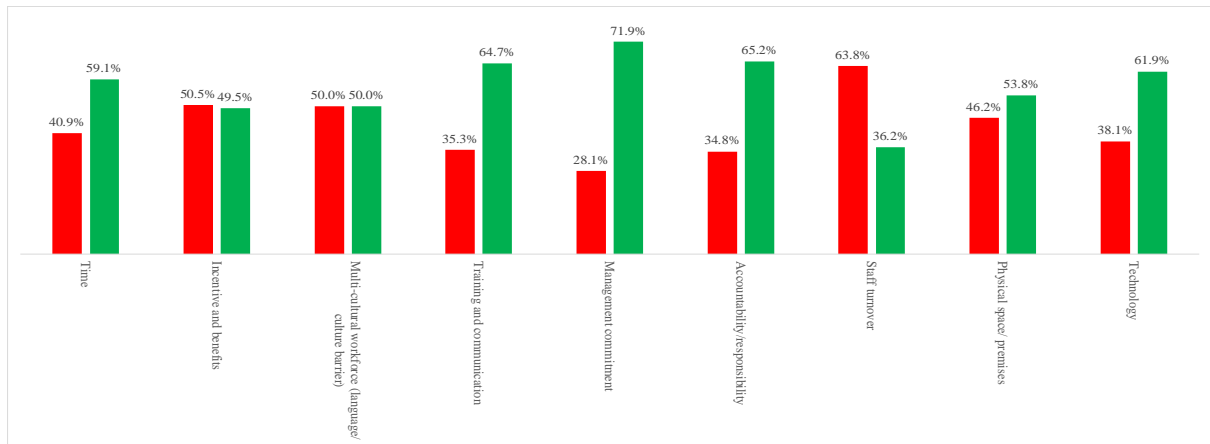


Figure 3 Overall demographic Barriers and Positives Ranking

The overall responses identified positives such as time allocation at 59.1% did not find time allocation as a culture barrier as opposed to 40.9% of responders. In training and communication, 64.7% of satisfaction was recorded against the 35.3% of responders. In management commitment, 71.9 responders expressed satisfaction as opposed to 28.1%. In terms of accountability and responsibility, participants responded with satisfaction of 65.2 as opposed to 36.2. In physical space/premises environments, respondents indicated a satisfaction of 53.8% as opposed to 46.2%, and in technology applications in the workplace, responders indicated a satisfaction of 61.9% as opposed to 38.1% responders. However, findings also established barriers to staff turnover as responders indicated dissatisfaction at 63.8% against the 36.2% responders. It was also established that other study elements could not be identified as either a barrier or positive. In Incentives and benefits, respondents were almost even in responses at 50.5% and 49.5%. In a multicultural workforce, responders were even at 50% regarding stratification and dissatisfaction. Considering the accident rates in Saudi Arabia, the study identified findings of conflicts in culture equity with employees' perceived barriers and positives. It closed the gap where no past research was conducted within KSA that attempted to examine conflicts in culture equity with employees' perceived barriers and positives.

In terms of accident rates in Saudi Arabia, these findings addressed the gap in research conducted by Khan et al. (2010). Their research ended on causal factors rather than identifying the road by exploring the conflicts in cultural. equity and the relationship between safety culture and OHS performance to identify the root causes.

Secondary Data

Other secondary data findings included the quantitative organizational health and safety performance records.

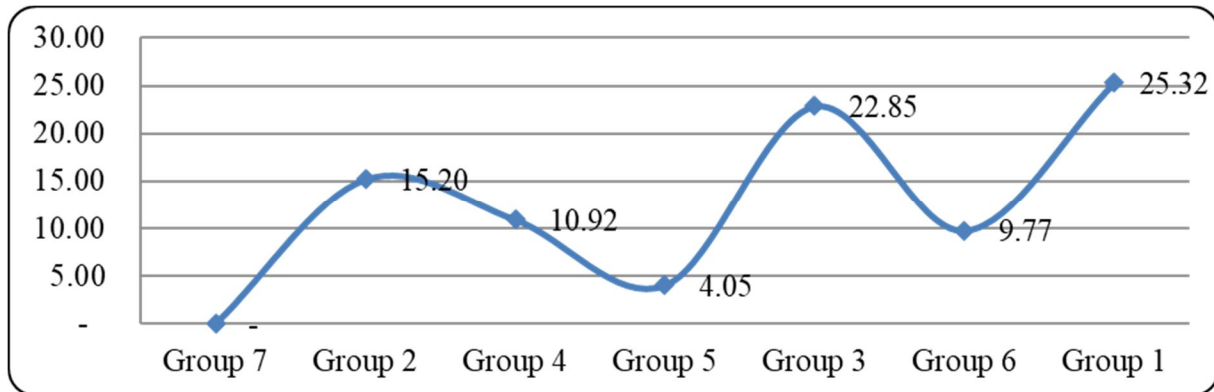


Figure 4 Accident/Incident rate by study group

4. Analysis of data

The research identified priority conflicts signifying the differences between personal prioritisation and perceived company prioritisation. It also identified conflicts in culture equity with employees' perceived barriers and positives. Therefore, the research addressed a gap in the specific exploration of safety culture within Saud Arabia regarding OHS performance, where no research attempted to examine personal prioritisation and the perceived company prioritisation in relation to culture and occupational accidents.

The following are the root causes as conflicts were contextualised in an occupational setup.

4.1 Perceived priorities

The perceived company ranking indicated a high perception score on production costs, and speed conflicted with their prioritisation as they scored medium production costs and speed. This conflict was evident as a root cause when they indicated that operational targets always conflict with safety and health measures, such as time, a day off, and a distraction from supervisors' calls. They indicated that sometimes conditions hinder their ability to work safely, and sometimes they are not allocated adequate time to do their job safely. Other roots cases under this conflict were evident when responders indicated that fatigue is the main reason for most of the accidents in the company. They indicated an awareness of the threat to the safety and the direct impact on safety and cost. They linked fatigue to an increase in the likelihood of accidents for diabetes employees as it adds more to their stress.

The priority conflict findings addressed the study theory and the adopted belief based on a phenomenon that people's perceptions, attitudes, and behaviour, were related to an organisational OHS performance.

4.2 Culture equity

Participants indicated that the organisation should 'implement a consistent and uniform reward and awarding systems as part of employee's recognition towards adherence to OHS requirements' rather than focusing on awards that meet production set targets. Therefore, the barrier of incentives and benefits was recorded as a root cause based on the evidence response. Although a multicultural workforce was recorded as a root cause, no information was provided by participants to substantiate the perception. Lastly, the recorded root cause of staff turnover is linked to the 'Time orientation,' where responders indicated being more

focused on the short term correlated with the problem statement due to the increased number of fatalities and severe injuries.

4.3 Perceived priorities and Culture equity

The findings addressed the gap in research conducted by Khan et al. (2010) that did not attempt to further explore identified factors. In addition, the research addressed the research gaps in the research conducted by Richter and Koch (2004), Everon (2010), Kusumawati (November 2021) and Fogarty and Shaw (2010), where the research correlated with their causal findings, however, the correlations did not affirm their findings but view them as insufficiently investigated. The findings of the study provided a base for new knowledge in addition to the past four research findings. The results indicated that the non-recorded lagging indicators (zero accidents rate) do not represent employees' satisfaction within the established processes.

With reference to tables 1&2, the significant findings in priority and equity culture conflicts identified in group seven significantly outline the new knowledge base of the research from past research. The zero accidents rate did not represent employees' satisfaction with the established processes in terms of equity culture alignment. Therefore, the OHS performance cannot predict safety culture, nor can safety culture be a single predictor of an organisation's OHS performance.

5. Conclusion

With reference to the Excellence culture model, identified conflict is considered a significant predictor of risk. Therefore, the study findings identified the root causes or underlying causes of incident rates as perceived by individuals. These findings addressed the gaps as past similar research was insufficiently investigated and did not further explore to identify underlying causes. The identified priority and equity culture conflicts signified individual preferential differences in the organisations' priorities, positives, and barriers. These findings signified an individual preferential social behaviour based on which their actions are driven. The research terms this as an 'individualistic preference' that drives attitudes and behaviours.

In this view, the study established that zero accidents/incident rate does not represent employees' satisfaction with a conclusion that OHS performance cannot predict safety culture, nor can safety culture be a single predictor of an organisation's OHS performance. Therefore, 'individual culture is a predictor and directly impacts an organisation's safety performance. This conclusion signifies the importance of 'individual culture' over 'safety culture' or organisational culture.

6. Recommendations

- I. Organisations/institutions must avoid implementing prescriptive systems and promote employees' autonomy, ownership, and authority to deal with potential safety problems at work.
- II. Migration from a Stand-alone system to a continual improvement system of the Plan, do check, and act cycle must be adopted through the application of principles of managing organisational (Hollnagel,2013)
- III. Organisations must invest in exploring ways to reduce errors and influence behaviours. As management is accountable, incidents are no longer an acceptable norm attributed to human behaviours.

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- IV. An organisation must invest in a competency program (Plan, do, check, and act cycle approach) to ensure competency is focused on training, skills, knowledge, experience and mental stress ability, appreciation of competency limitations, and vulnerabilities.
 - V. For an organisation that has been exposed more to external factors, individual culture is more critical to the organisation than safety as the individual becomes the ultimatum/ability to choose the outcome of every situation.
 - VI. Organisations must implement a 'just culture' (not only a safety culture) coupled with transferable leadership skills.
 - VII. Invest in Psycho-social improvements and organisational development, e.g., motivation for employees' participation and consultation and promotion of social learning. (Peters & Waterman 1982).
 - VIII. The research recommended that 'Proactive OHS management system safety II' and 'just culture' be investigated and how they directly impact "individual culture.' Secondly, how 'individual culture' can be cultivated as the ultimate safety solution.
 - IX. Organisation culture examination of employees' perceptions must be a pre-requisite to ISO 45001:2018 OHSMS certification.
 - X. As Safety culture is not predicted by OHS performance, a future study can 'explore if the number of proactive interventions represents safety culture within a working setup.'

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