Cultural values and beliefs, and performance: Examination of occupational accidents.

Chileshe Muselela[1], Liberty Mweemba[2] and Kaiko Mubita[3]

1. University of Zambia, School of Education, Department of Language and Social Sciences, P.O. Box 32379 Lusaka. muselelechileshe@yahoo.com. +966594834380
2. University of Zambia (Great East Road Campus), School of Education, LSSE (Department of Environmental Education, EE), P.O Box 32379.
   Lusaka, lmweemba69@yahoo.com .
3. Lecturer and Researcher, University of Zambia (Great East Road Campus), School of Education, Department of Language and Social Sciences Education.
   P.O Box 32379. Lusaka. mubita016@gmail.com or mubita.kaiko@unza.zm

Abstract
The study examined the critical realism of employees' cultural preferences in relation to individual perceptions, attitudes, and behaviours and attempted to recommend culture mitigation strategies. This was in a study driven by a public outcry on the increased occupational accident and the need to establish the relationship between Safety culture and OHS performance from the perspective of occupational accidents.

Findings identified themes that stated that differences exist between individual perceptions within the organization's social context and cultural values and beliefs preferential and recommended an enhanced Traditional Safety culture model as an ethical subjectivism approach/tool,

This model demonstrated Epistemic relativism, where Ethical subjectivism allows individuals to establish right and wrong and how individualistic perception and preferential (Axiology) drive behaviour within a social context signifying that individual culture (ethical subjectivism) is more critical than safety culture (social context & Cultural relativism) as a qualitative theory of causality it has impacts performance directly. Thus, said Safety culture (Cultural relativism) has no direct impact and cannot predict OHS performance or vice-versa because having a zero-incident rate does not imply employee satisfaction or a positive safety culture and the only culture that can ascertain satisfaction is where the 'Individual culture' establishes a 'constant conjunction' of safety performance. In conclusion, satisfaction can be acquired with or without a reference to performance. The research recommended a future study to develop a modern industry (not traditional) model for integration within an org. Framework & OHSMS to influence 'individual culture.'

Key Words: Safety culture; performance; ethical subjectivism; individual culture, individual preference; traditional industries

1.   Introduction

For us to understand what safety culture is, it is important that we define the individuality of safety and culture and how the two annexes each other in a work environment. Safety may be defined and measured by its absence rather than its presence. At the same time, culture emerges where people live and work together, creating a certain level of shared understanding Guldenmund (2010). In this regard, we can say that culture plays a crucial role in society, organizations, and influences. However, it is also influenced by an organization's structure and formal part and the daily execution of its processes. The latter occurs as interactions between people and between people and the primary process. Hence, if safety is integral to this primary process, the resulting culture is called 'safety culture'.

Therefore, Safety culture can be termed as an assembly of characteristics and attitudes in an organization and individuals and may be viewed as an overriding priority (Reason, 2008). This definition highlights two major points: While safety culture is about good safety attitudes, it is also about good safety management established by organizations. Secondly, it is also about good safety culture that encourages focusing on the highest safety priority. The success may depend on organizations demonstrating interest in promoting a positive safety culture to reduce or prevent incidents, having the edge of implementing safety workplaces of what is currently called' Safe person and safe workplace.

Culture could be summarised as all formal and informal community behaviours for a perceived identity. It is aligned with social values embroiled in organizational culture (Bisbey et al. (2021). It has been recognized as a critical influencer component of organizational culture (Kotter, 2011). Since the 1990s, 'culture' has been projected as an element of every management system. However, Tedla (2016), with reference to past scholars, highlighted that culture had been misrepresented as contradictory to advocating organization values in a cohesive approach. Culture represents ethnic groups, nationalities, or people with similar attributes and characteristics (ibid). The broader range of elements entails why culture had been considered a conceptualized theory due to its unclear definition despite various researchers' and scholars' attempts. Culture can be defined as patterns of behaviour acquired and transmitted by various media of human groups, including their embodiment in artefacts.

Mohamed & Rushdy (2017) defined culture as a concept driven by experiences that people may have undergone and framed in a systematized way as it 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 behave at work and in their social life outside work.

From an industrial perspective, culture is forcefully driven for a positive change to impact employees' interests and values (Wheelen & Hunger, 2006). Any industry cannot ignore individual or group cultures as it has negatively impacted various industries. Tedla (2016) research believed that an organization's commitment to work ethics and implemented practices emanate from a culture. It can also include organization communities in a manner that these attributes significantly influence OHS performance and hence justified the intent of this study. Studying the 'exploration of safety culture and OHS performance had many considerations. It included examining the organization's degree of influence on employees' attitudes and perceptions of occupational health and safety (OHS). The organization

examination covered employees' behaviours while working within and outside organization environments.

With this in mind, explaining how the Safety culture model framework fits into the overall risk management process through a closed loop and how safety culture could be measured is key. Reason 1997 Safety Culture Framework articulated the main elements of the five sub-cultures. These have been driven by the three constructs, namely, several layers and safety system, pathogenic adaptation, and repetitive incident pattern, of which today are unanswered theoretical questions, hence informing this research. Reasons further framed the five sub-cultures into three categories: Risk perception, attitude towards safety and safety-related behaviours, arguing these three as behavioural enablers. When this research was embarked upon, the latter construct appeared not to have been effectively and sufficiently managed, which drove the need for this research to be conducted due to the increased rate of incidents that needed to be explored. However, the research process also required knowing how the current effective enabling factors or driving factors were effectively implemented from the perspective of the work community within the organization and ascertaining how much influence the behaviour enablers influenced the out.

1.1   Problem Statement

Considering the huge investment channelled into implemented measures by many organisations in view of OHS, performance improvement is critical in attracting, retaining, and motivating employees. However, at the time of the study, there was little known non-existence of safety culture and OHS gaps were examined to explore the relationship between culture and the increased number of occupational accidents.

1.2   Purpose of the study

The study examined the critical realism of employees' cultural preferences to establish the relationship between safety culture and OHS performance from an 'occupational accidents' perspective.

1.3   Objective

The objective of this study was to:

(a)   To establish differences in cultural values and beliefs by establishing employee preferences.

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. Therefore, findings act as a new credible knowledge base and a basis to advance organizational policy formulation for the company and other similar industries wanting to enhance OHS performance. From the society's point of view, this research outcome promotes and improves the safety, well-being, and national mortality rate in that the research echoes the emblem of the world health Organization (WHO) through organizational policy formulation for the prevention of fatalities and injuries and save costs.

Undoubtedly, organizations/industries will benefit by achieving 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 showcases a platform for integrating an in-depth cultural ethical subjectivism 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 and models, did not.

The targeted and beneficiary groups are the ISO-certified and noncertified industries. These industries can either be those that are planning to establish a safety culture and associated OHS system or are performing a migration from the old or other OHS management system (governmental & non-governmental) and the British Standards Institution, Certification bodies, National Occupational Health & Safety regulatory bodies who should consider mandating the used of the Ethical subjectivism assessment into the certification process.

1.5   Theoretical Framework

The research explored and examined 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 to address the increased number of fatalities in a single year where historically, at the time of the study, little known or unexplored nonexistence of the relationship between culture and the increased number of occupational accidents, hence this study.

Reason (2016) theories, which describe and identify the five subcultures—an informed culture, a reporting culture, a just culture, a flexible culture, and a learning culture were the theoretical foundation for the research to examine the relationship between safety culture and performance. Reason (2016) theorized that safety culture is much more than the sum of its parts and cannot be a unitary construct where these subcultures are interdependent. The study arose from controversies surrounding contradictory research findings on the relationships between safety culture and performance. It was established in this research that there is an existing gap as past scholars did not reach a consensus on establishing a relationship between safety culture and OHS performance as reviewed relevant literature was considered to be inconclusively investigated. With research contradictions inconclusively investigated, the research findings addressed the gaps by the adoptive Reasons theoretical construct that further explored the causal factors by critical realism to identify root causes and their relation to traditional industries, pathological adaptation, and recurrent accident patterns.

Reason also theorizes that 'several layers of mutually supporting defence are required to guard against organizational safety incidents. He further theorizes that 'these layers, and the safety system as a whole, are shaped by an organization's safety culture'. The theoretical was centred on examining 'why an unsafe culture is more likely to be involved in the causation of organizational rather than individual accidents.

Reason (1997) further theorizes the existence of 'pathological adaptation', stating that organizational culture does not spring up ready-made. Organizations, like organisms, exemplify that organizations adapt and state that safety cultures evolve gradually in response to local conditions, past events, the leadership's character, and the workforce's

mood. Reason (1997) theoretically informed this study when he indicated, 'How can this adaptation go wrong?' Why do certain organizations value the wrong kind of excellence or pursue goals that carry serious safety penalties?

Reasons also theorized that the 'recurrent accident patterns' state that in almost every kind of hazardous work, it is possible to recognize typical accident patterns.' He further theorized that 'different people are involved in these events, which implicate causal factors relating to the workplace and the system at large. Local traps involving error-provoking tasks and work conditions have the power to lure people into repeated sequences of unsafe acts. Reason posed a theoretical underpinning for this research stating a point of examination as 'to what extent do cultural influences act as drivers for these unhappy repetitions? Moreover, that situation may pull, but do cultural influences also push?

The study arose from controversies surrounding various contradictory research findings on the relationships between safety culture and an organization's safety performance. Fernandez-Muniz et al. (2007) stated that reducing accident and incident rates provide the best safety culture measure. In another research, Otitolaiye et al. (2021) found that safety culture and management systems positively correlated with safety performance. Contrarily, four other researchers argued this theory with the dimensions employed. Richter and Koch (2004) illustrated safety culture as not a predictor of safety and health performance. In addition, Chenhall (2010) stated that his research did not "link accident rates to the safety cultures. His findings indicated that combined Safety culture values and practices score did not predict 2009 OSHA, LTA, and severity rates(ibid). In another research, Kusumawati et al. (2021) stated that safety culture and the maturity index alone could not predict safety performance. The common aspect of the past research reviewed as relevant to this study is that they did not attempt to explore the underlying causes, as these were similar findings in a release conducted by Khan et al. (2010).

Reason theory underpins this study based on interpretive/descriptive phenomenology and ontology of the existence of multiple realities with possible new knowledge generation from the controversies where no consensus on the relationship between safety culture & OHS performance/impact was established, as performed through a grounded theory approach to explored gaps in unexplained and previously inconclusive phenomena, where the employed approach was able to identify the situated nature of knowledge and the contingent nature of practice by revealing areas of conflict and contradiction to state the actuals.

Other research theories incorporated within research to enhance the instruments to assess employees' behaviour towards safety and health aligned to Reason's construct included the Excellence Culture 2019 and Hofstede (2003) cultural theories.

The Excellence culture (André, 2019) model was integrated and interrelated for this research into the implemented OHS Management system as the system was based on the continual improvement approach of a PDCA concept. The Excellence culture model states that shared norms, beliefs, and values affect employees' psychological behaviours. The model evaluates the effects and distinguishes individual cultural preferences within an established process.

Excellence Culture (2019) theorizes that the relationships of operational excellence with organizational culture and agility can further be integrated into promoting long-term, sustainable operational excellence initiatives. The theory argues that change is constant in an increasingly dynamic environment. Therefore, understanding the context behind operational excellence initiates, within this research, it was established that elements are

purposely aligned and appropriate to be used as a basis for research tools when investigating the employees' perceptions and attitudes towards safety within the implemented 'several layers' as framing them for workers. This approach was based on the argument that these drivers are designed to achieve improved performance results and, as such, should not be seen as an approach to promote change but as tools and framing for people to promote a more agile behaviour in the organization's change by creating an adaptable cultural capacity to deal with constant change.

The dimensions used for the research instruments were appropriate for this research based on the theoretical construct that if these conditions are met, operational excellence should be sustainable, strengthening the research process to explore approaches and how the capacity to improve performance can be successfully demonstrated.

A cross-cultural communication theory called the Hofstede culture theory postulates that a society's culture impacts its members' values and how the said values relate to behaviour. The theory assumes that culture can only be meaningful if used to make a comparison. In order to attain the concept of comparison, Hofstede's theory theorized that rather than evaluating the preferences of individuals, the theory evaluates the preferences of a country. Therefore, Hofstede's (2003) cultural dimensions theory was integrated and interrelated to form part of the research instruments, and many organizations are nationally oriented. Hofstede's (2003) cultural model was appropriate for the study as the framework applied to a cross-cultural population. Hofstede (2003) cultural model is designed to evaluate the effects of a society's culture on values and beliefs and distinguish individual cultural preferences through short vs long-term orientation, power distance, individualism-collectivism, masculinity-femininity, and uncertainty avoidance. The dimensions allowed the research to explore and examine the safety culture. The elements are purposely aligned and appropriate to be used as a basis for research tools when investigating the employees' perceptions and attitudes towards safety to establish preferential conflicts.

It is important to note that while each of these culture theories can be used as a standalone approach to data collection, the researcher for this study used both as complementary approaches to data collection (triangulation) because this is a convergent parallel mixed method approach research that lends a greater degree of robustness (Taylor et al., 2011).

The collated data was then further triangulated with KPIs variables to ascertain whether the conflicts or alignment impact the effectiveness of an occupational health and safety system and OHS performance. Admittedly, this approach validated the purpose of this research conducted.

2. Methodology

The research was characterized by interpretivism and descriptive phenomenology as a qualitative, however, complemented by postpositivism (Saunders, 2007; Tashakkori A & Creswell, 2007), which employed Critical Realism to explore the relationship of social realities to establish any impact and how it can be changed to, provide clear norms for criticism and transformation. This was through the convergent parallel mixed methods approach, as Creswell and Clark (2017) guided. Data was collected through a multi-method, holistic approach (triangulation) through self-administered questions, in-depth focus groups interview, and document analysis (triangulation of management system capabilities, preferential safety, Excellence & Reasons Behavior constructs models). The research applied qualitative thematic analysis and data transformation where qualitative,

quantitative, and secondary OHS performance data were presented in tables as joint data display (Onwuegbuzie & Leech, 2005)

2.1 Culture Preferences
In order to examine the differences in society's cultural values and beliefs and establish employee preferences, a self-administrative questionnaire was used. The tool driven by Hofstede (2003) cultural model is designed to evaluate the effects of a society's culture on values and beliefs and distinguish individual cultural preferences. The model dimensions examine preferential conflicts.

3.   Presentation of Findings
3.1   Cultural Preferences
The following are the root causes of preferences in an occupational setup.

Under 'Time orientation,' responders indicated being more focused on the short-term than long-term goals. This was recorded as an identified root cause that correlated with the problem statement that stated that an 'increased number of fatalities and severe injuries were among the reasons, resulting in an increased employee turnover rate every year as employees no longer worked for long years of service.

The implemented operational excellence model under the purpose validated participants' concerns. It ensures a clear focus on the importance and clarity given to safety in the overall mission and its translation into daily operations, which should have ensured that participants felt protected. When the vision of long-term aspirations of the company and the direction employees perceive it to be moving in are in line with the values where the extent to which safety is seen as a core company principle and how they are directly and indirectly demonstrated in practice should act as a base on which the employee awareness and agreement with the long-term vision of the organization.

Under 'Masculine and feminine, responders indicated a preference for a feminine work environment where feelings, relationships, or equality were prevalent, e.g., nurturing outweighs assertiveness and materials. Participants identified this as a root cause, as participants felt they were not encouraged to raise safety concerns. A significant number of participants pointed to a lack of communication and a supportive environment. Another recorded root cause was that participants indicated supervisors did not work as team members. They had no patience, making participants feel they were not treated well. Responders indicated that the supervisors were not concerned with their welfare but were more concerned with machinery and product conditions. Participants' concerns were validated and aligned with the empowerment of e, employees who reflect the level of autonomy and ownership of their authority to deal with potential safety problems. Secondly, encouraging and rewarding, which related to relates to the use of incentives and disincentives to shape and manage correct behaviours, as well as opportunities to develop knowledge and skills and promote a Reporting culture where the organization has cultivated an atmosphere where people can report safety concerns without having a fear of being blamed through confidentiality and without that they will see not benefit and have not trust of reporting. Lastly, this was aligned with the requirements of a shared accountability framework wherein organizations are responsible for the systems they have created and for treating their staff members' actions with fairness and justice, thereby creating a trustworthy environment where individuals are argued to share crucial safety-

related information but are also clear about the boundaries between acceptable and unacceptable behaviour.

Under the "Uncertainty avoidance," where responders preferred a flexible environment, participants were more inclined to have a tolerance to risk and be comfortable accepting the change. However, the root cause identified from the free text indicated that prescriptive safety rules and procedures were carefully followed only when accidents occurred and firmly believed that it was only a matter of time before being involved. They were indicating that employees were not following set rules. However, they were inclined to follow them to fulfil the requirements only when they knew they were being watched or monitored in real-time. Another root cause under the dimension indicated that participants lack a safety attitude that organizations care for them, indicating that safety rules and procedures are not followed with adequate implementation. Participants' concerns were validated and aligned with the 'attitudes to Safety in relation' construct argued by Reason (1997) subculture that attitudes toward safety can be connected to risk perception and behaviours related to safety attitudes (especially management) in relation to safety, risk, and production.

Regarding the implemented management system and the operational excellence requirements, participants' concerns were validated to affect how an employee performs work safely. This was aligned with Control, which relates to the effectiveness of managing and supervising to ensure compliance. The organization implemented a system that states that a meaningful way top management demonstrates leadership is by promoting incidents and hazards and protecting workers from being reprimanded. The response from the operators highlighted that they are in fear of reporting at times. This finding was also validated by the Reasons (1997) construct, which states that the organization must 'create an atmosphere where people can report safety concerns without fear.

Overall, the finding is that the risk perception in relation to Reasons (1997) subculture argued that misperceptions of the seriousness of risks frequently occur at all organizational levels. Individuals at all organizational levels need to have the same perceptions and judgments of the seriousness of risks, as these perceptions affect risk behaviour and appropriate decisions about safety issues.

Under the 'Power of Distance,' responders indicated more acceptance and respect towards the organization's structure and hierarchy. Power of Distance,' where participants respect the organization structure, can be inclined not to be free but fear being reprimanded. Under the category of the free text, the root cause identified recorded 48% of participants disagreed with supervisors and managers regarding their safety coupled with consistent enforcement of turnaround trips without adequate rest times. The findings of the 48% were aligned with the implemented management system the operational excellence requirements, which requires the consistency of having standard working methods that are effectively communicated and maintained throughout the company over time and are focused on the internal mechanisms by which the organization manages safety on a routine basis. These include availability and satisfaction with safety management systems, coordination of safety across the organization, consistency of practices and standards over time, and the perceptions of management control.

Under the 'Individualism- collectiveness, responders' preference was somehow equal as they chose individual or team accomplishments. Despite the equal selection of 'Individualism and collectiveness, the results indicated that 50% of the sampled population

is set for individual needs rather than groups. The preference indicated that 50% of the responders preferred to be autonomous and independent.

Therefore, in response to the cultural preferences with differences in cultural values and beliefs, Figure 3.1 and 3.2 illustrates the degree of participants' preferences for the dimension that took up the two elements of negative and positive, either low or high. The findings established preferential cultural differences - signifying the existing differences in cultural values & beliefs in individuals.
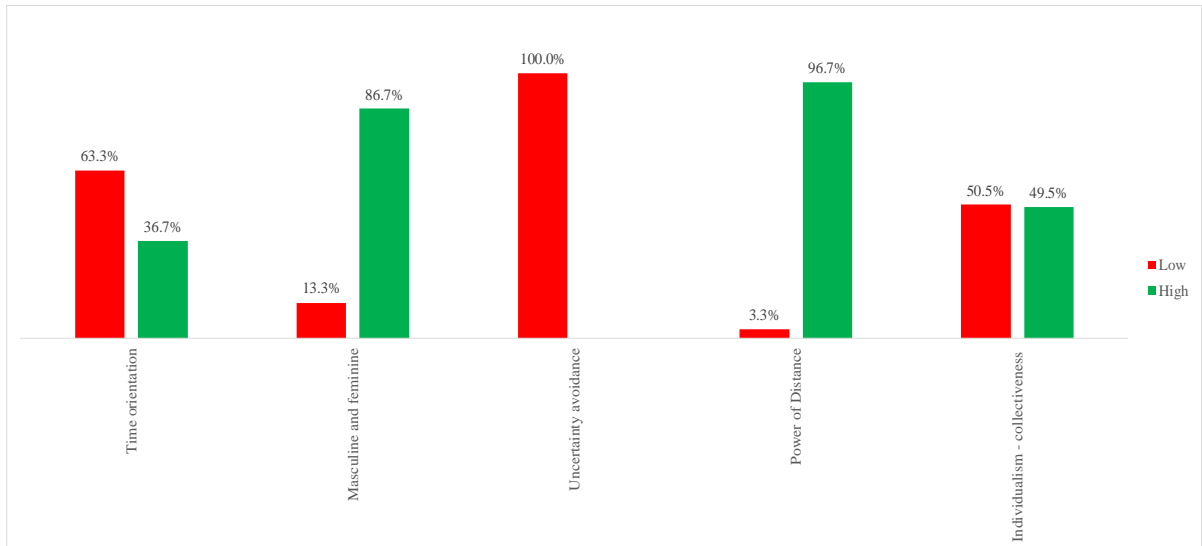

Figure 3. 1   All groups Hofstede Culture theory responses outcome

Figure 3. 2 All groups Hofstede Culture theory responses for Category of Preference

The findings, therefore, addressed the research gaps in Abdullah et al. (2009), Arboleda & Abraham (2004), Israni (2015) and Ali (2020), who attempted to explore safety culture without an attempt to explore the triangulation of management system capabilities, preferential safety, Excellence & Reasons Behavior constructs models in relation to occupational accidents to establish the relations of safety culture and performance.

4. Discussion of Findings
4.1 Existence of Preferential cultural differences in cultural values and beliefs

While the research agreed with the findings of Abdullah et al. (2009), Arboleda & Abraham (2004), Israni (2015) and Ali (2020) on assessing employees' perception of health and safety management in public hospitals, an International Review of Business Research Papers and Fatalities in Trenching Operations, this research viewed them as insufficiently investigated as they did not consider behaviour enablers as underpinned by Reasons (1997) on the construct of pathogenic adaptation where theorized the existence of stating that organizational culture does not spring up ready-made and must be designed consider local conditions, past events, the leadership's character and the workforce's mood which should have allowed triangulation of management system capabilities, preferential safety, Excellence & Reasons Behavior constructs models in relation to occupational accidents to establish the relations of safety culture and performance. The criticality of social science research that must ensure preferential assessment as guided by Hofstede (2003) to assess individualism - collectiveness, time orientation, and power of distance as underpinned by Reason (2016) theory of unitary constructs where these subcultures are interdependent and cannot study independently from the other.

The research identified cultural preference findings signifying the existing cultural values and beliefs differences and established employee cultural preferences. Therefore, the research addressed an organizational culture gap in the specific exploration of safety culture, where there was no attempt to explore preferential differences in relation to occupational accidents.

Overall outcome from an interdependency of other constructs and systems, the findings addressed the gap in research conducted by Otitolaiye et al. (2021), Kusumawati et al. (2021), Chenhall (2010), Barrimah et al. (2012) and Barbiz (2011), as their research ended on causal factors rather than identifying the root causes. Because past scholars did not explore the identified causal factors further, this research considers their research inconclusive as it did not address the roots.

These findings have also addressed the gap in the research conducted by Baloğlu (2012) that was only focused on relations between Value-Based Leadership while focusing on internal and external implications with regards to the 'power of distance') as a single dimension of the complete Hofstede (2003) culture model. These research findings were attributed to the failure to identify root causes and were considered inconclusive and insufficiently investigated by this research in the case of Baloğlu (ibid).

A significant finding of the preference indicated that 50% of the responders preferred to be considered autonomous and independent are similar and complemented other objective findings were participants' preferential social behaviour and how they make sense of life, showed that their actions are driven by attitudes which are a product and that of their individualistic preferences.

In summary, the implication is that the existence of multiple realities can be explored by any organization where immediate causes or causal factors can be identified and are more

likely to be universal. However, further exploration of causal factors allows organizations to establish underlying elements directly linked to incident rates more likely to be specific to an individual organization's setup. Organizations highly likely to be inclined to this finding are those whose cultural image is attained and upheld by the ultimate accountability of 'individual' employees. Therefore, individual culture is more critical than safety culture to organizations exposed to external factors.

The study was designed to ascertain whether individuals' perspectives and preferences impact the organization's overall OHS performance arising from controversies surrounding contradictory research findings on the relationships between safety culture and an organization's safety performance. Therefore, the research closed the gap as past scholars did not agree on establishing a relationship between safety culture and OHS performance using two models (Hofstede and excellence culture models) integrated and interrelated into an implemented OHS Management system of the PDCA concept.

The finding did not agree with published research based on identified individual differences as their research ended on causal factors rather than identifying the root causes, which was contributed by study theory and the adopted belief based on a phenomenon that was not aligned with the study of human lived experience I, e in the study conducted by Ismail (2012), Purang (2018), Gilbert et al., (2018), Caldwell (2018) and Morrow and Coplen (2017). Therefore, this research was able to address the gap where previous research did not reach a consensus on establishing a relationship between safety culture and OHS performance underpinned by - Reason (1997) in order to establish inconclusiveness as no they were limited to scholars who attributed the incident rates to 'individual culture rather than 'safety culture'.

Therefore, the theoretical contribution is underpinned by reasons under the interpretive/descriptive phenomenology ontological and epistemological supposition of multiple realities. Saunders (2007) stated that Safety culture is much more than the sum of its parts (five constructs). The individual can be argued to form the back of the 'enhanced Safety culture more specific to traditional industries. While employing the grounded theory, the research was able to identify and establish areas of conflict and contradiction to state the actuals of the situated nature of knowledge and the contingent nature of the practice, thereby facilitating the understanding of definitions to build new knowledge of "individual and how it resides within the safety culture model of a traditional industry. With research contradictions inconclusively investigated, Reason's theoretical construct underpins and strengthens the explored causal factors by critical realism to identify root causes (individual culture) and their relation to traditional industries based on pathological adaptation and recurrent accident patterns.

New knowledge implies that causal factors of multiple realities are global and can be explored. However, root causes, perceptions of situated knowledge, are the contingent nature of practice to incident rates. A 'Reason's culture theory' explanation of the underlying causes is specific to organizations whose safety culture is attained and upheld by 'individual' accountabilities.

Therefore, by the definition of 'traditional industries', which involve close encounters between people and hazards, this research has established that individual decisions directly impact the outcome of a sequence of events and performance.

5. Conclusion

A review of each study group's findings and their unique philosophical positions in relation to the exploration of safety culture and performance proved the critical realism ontology application. The outcome of multiple realities explains how individuals make sense of their social worlds differently from one another. This was clear, proving that realism's knowledge varies as humans vary in culture, experiences, views, and interpretations.

The theoretical framework of multiple case studies explored and examined the relationship between safety culture and OHS performance from the perspective of an occupational accident and adopted a mixed-method approach to delivering a complete explanation of the phenomena. The interpretivism paradigm adopted allowed the exploration of a phenomenon on safety culture and the relationship to OHS performance by critical realism. The epistemology gained through self-administering, interviews, and triangulated responses with performance adopted a philosophy that allowed the research process to view knowledge as a complex phenomenon that cannot be generalised. The study approach gained new knowledge while using an established management system as a unifier and two renowned culture models and dimensions, making this research so vital in applying the findings in any industry worldwide.

The research established how past similar research was insufficiently investigated as they did not further explore to identify the root or underlying causes. Study findings identified the root causes of incident rates based on perceptions and preferences by individuals, which did not establish a single readable contextual pattern in relation to OHS performance. The research identified differences in cultural preference findings signifying the individual differences in cultural values and beliefs, which are considered root causes or underlying causes of incidents rates.

Therefore, the research established that Zero accidents/incident rate does not represent employees' satisfaction and that OHS performance cannot predict safety culture and vice-versa. It showed that good or no 'accidents or incident rates' are contributed by 'other factors such as 'individual culture' other than 'safety culture. It was evident that axiology was impacted by how individuals socially constructed their world. This implied that an 'individualistic preference' drives attitudes and behaviours based on how they perceive their 'social context' that includes 'safety culture within an established system. In other terms, individual perception and preferential drive social behaviour based on which actions are driven as these are influenced by interaction with social contexts and what meaning they attribute to their experiences. Epistemic relativism is where Ethical subjectivism allows individuals to establish right & wrong (Mohamed & Rushdy, 2017).

This research has established that based on the value of ethical knowledge through questions, interactive interviews, individualistic perception and preferential (Axiology) drive behaviour within a social context. The study showed that OHS performance could not predict safety culture, nor can safety culture be a predictor of an organisation's OHS performance. Therefore, this conclusion has validated the new knowledge that '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 in relation to OHS performance. Therefore, individual culture is more critical to an organisation and directly impacts an organisation's OHS performance and can be used as a predictor of performance. This, therefore, signifies that individual culture (ethical subjectivism) is more critical than safety culture (social context & Cultural relativism). This informed and strengthened the grounding that Safety culture (Cultural

relativism) has no direct impact and cannot predict OHS performance or vice-versa, as evidenced by the Zero-incident rate in group 7, which did not imply employee satisfaction or a positive safety culture. Thus, ' Individual culture' establishes a 'constant conjunction' of safety performance, thereby establishing a critical realism state of a qualitative theory of causality (directly impacts performance).

Regarding perceived measures, the research could not establish situated root causes to establish the contingent nature of practice & therefore, however, was able to establish an enhanced Safety culture model that establishes the actuals of individual culture within the underpinning theory as an addition to the early five identified sub-cultures or constructs of Reason (1997)

The research perceived measures could not correlate strategic measures proposed by participants to specific root or underlying causes identified to respond to the culture mitigation strategies for integration within the existing OHS management system. However, overall, these 'several layers,' while treated as tools within the framework of the management system and operational excellence as informed by the theory, this research strongly recommends that an organisation's ISO 45001:2018 OHSMS external certification must not be endorsed or awarded without the assessment n or exploration of employees' perception and preferences had been effectively demonstrated as integrated within a system in compliance with ISO 45001: 2018

OHSMS clause 8 states that 'an organisation need to plan, implement, control, and maintain the processes required by the system, and implement the actions as determined in Clause 6, by (d) 'adapting work to workers'.

6. Recommendations
6.1 Adoption of the Safety Culture

Adopting the Safety Culture Model (figure 6.1) should be an alternate paramount to the sustainability of people's safety, health, and well-being (both employees and members of the public). This model sets a minimum model based on which an organization framework can be integrated and certified within an OHSMS to influence 'individual culture.'
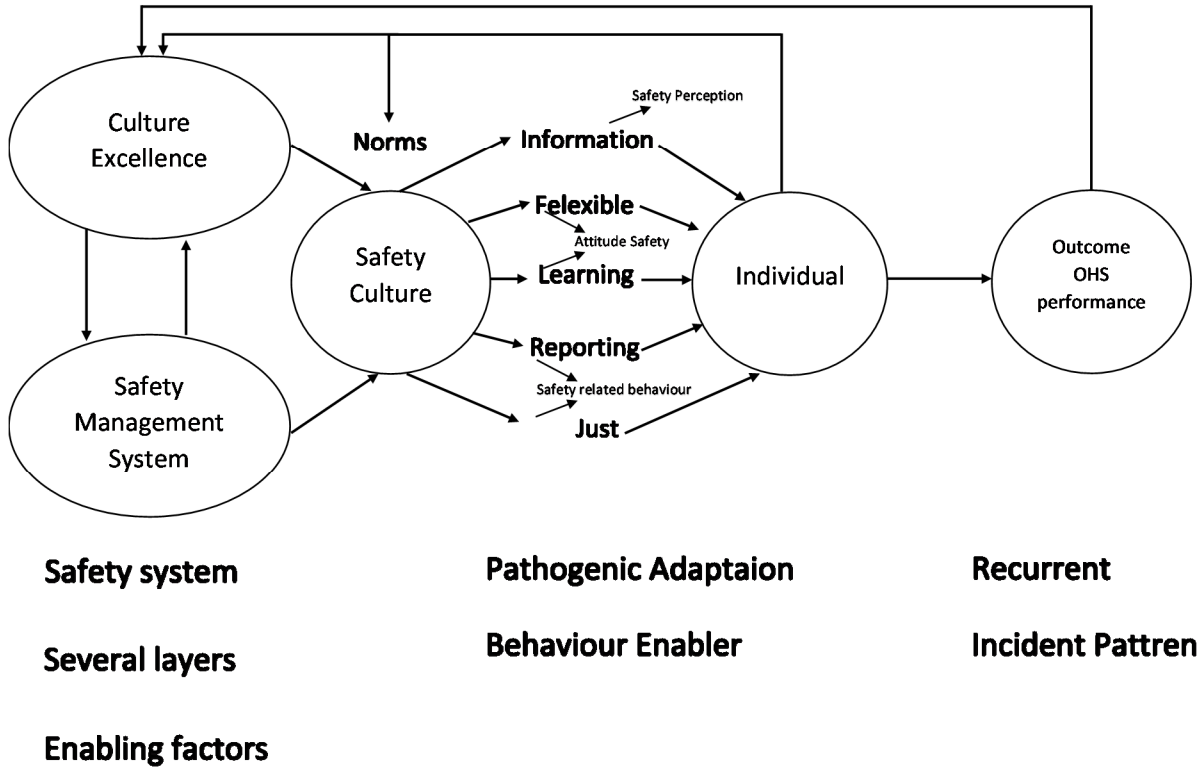
Traditional Safety Culture

Figure 6. 1 Developed Traditional Culture Model

This model clearly demonstrated Epistemic relativism, where Ethical subjectivism allows individuals to establish right and wrong and how individualistic perception and preferential (Axiology) drive behaviour within a social context. This signifies that individual culture (ethical subjectivism) is more critical to mitigation strategies when focusing on traditional industries than the generic approach to safety culture (social context & Cultural relativism). It also demonstrated that individual culture forms a qualitative theory of causality and impacts performance directly. Thus, said Safety culture (Cultural relativism) has no direct impact and cannot predict OHS performance or vice-versa because having a zero-incident rate does not imply employee satisfaction or a positive safety culture and the only culture that can ascertain satisfaction is where the 'Individual culture' establishes a 'constant conjunction' of safety performance. In conclusion, satisfaction can be acquired with or without a reference to performance.

6.2 Other recommendations

Other recommendations building up on the model are targeted to certifying bodies audience or group include the British Standards Institution, ISO 45001: 2018 OHSMS testing, inspection, and certification bodies, all ISO-certified industries and National Occupational Health and Safety regulatory bodies to consider integration and adopting the following strategies.

1. Triangulation of culture models and an established management system as a unifier to vitalize the implications in any industry around the world to address 'individual culture' - 'individual culture' exploration must be a pre-requisite to ISO 45001:2018 OHSMS certification as detailed in clause '2'

2. ISO 45001: 2018 OHSMS clause 8 requires organizations to plan, implement, control, and maintain processes needed to (d) 'adapting work to workers'.
   a. An Ethical subjectivism assessment must be conducted as a triangulated Culture model on the individual culture to ascertain the five Reasons safety culture model
   b. This must be made a request of any certification of the management system for any organisation and by any organisation.

3. Inclusion of the reward and recognition within the current ISO 45001:2018 OHSMS in addition to clause '5.1 Leadership and commitment (k) protecting workers from reprisals when reporting incidents, hazards, risks and opportunities.

4. Migration from a Stand-alone system (prescriptive system) to a continual improvement system of the Plan, do check, and act cycle must be adopted through the application of principles of managing an organizational (Hollnagel,2018).

5. Invest in Competency programs, Behaviour-based Safety, and Psycho-social improvements reduce errors and influence safety behaviours.

6. Future - develop a modern industries (not traditional) model for integration within an org. framework & OHSMS to influence 'individual culture'

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