Asian Journal of Management Entrepreneurship and Social Science
ISSN: 2808 7399
https://ajmesc.com/index.php/ajmesc Volume 03 Issue 04

Fleet Management Practices and Occupational health and Safety in the funeral assurance sector: The Mediating Role of Safety Culture

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abstract

The aim of this study is to establish the effect of fleet management practices on occupational health and safety in Zimbabwe. The study also explored the mediating role of safety cultures on the mentioned relationship. A sample of 72 respondents was drawn from eight registered funeral assurance companies. Respondents were selected using simple random sampling technique while structured questionnaires were used to collect data. Structural equation modelling (SEM) and Amos version 22 were used to test research hypotheses. The study revealed that fleet management practices such as vehicle maintenance, route planning, driver management and vehicle tracking positively influence and occupational health and safety. Moreover, the study concluded that safety culture partially mediates the effect of fleet management practices on occupational health and safety. Understanding the role played by fleet management practices can help industry practitioners to implement effective strategies to enhance occupational health and safety standards. The proposed conceptual framework sets the ground for future research to further develop insights on fleet management practices, occupational health and safety culture.

Keywords: Fleet management, safety culture, occupational health and safety

1. INTRODUCTİON

Funeral assurance companies heavily rely on efficient fleet management practices to conduct their responsibilities effectively. However, despite this reliance, the continuous presence of occupational health and safety (OHS) issues remains a significant and ongoing concern (Kachilala and Dumba, 2022; Roche et al., 2022). In light of the limitations within the economic, political and social environment in many African countries, prioritizing fleet management becomes crucial for upholding OHS standards (Amponsah-Tawiah and Dartey-Baah, 2011; Puplampu and Quartey, 2012; Jilcha and Kitaw, 2016). Kachilala and Dumba (2022) emphasized the pivotal role played by effective fleet management practices within the funeral assurance sector. These practices play a crucial role facilitating the transportation of deceased individuals, grieving family members, and funeral personnel. Moreover, ensuring the safety and reliability of funeral vehicles requires regular maintenance, inspection, servicing, repairs, and checks to prevent breakdowns during funeral processions. In their study, Gaitens et al. (2021) and Botha et al. (2022) made an important observation regarding the well-being of employees who directly interact with grieving families and handle deceased individuals. They highlighted the need for prioritizing the adoption of robust OHS practices to ensure these employees are protected from physical and emotional harm. To achieve this goal, it is essential to provide appropriate personal protective equipment (PPE) such as gloves, masks, aprons, and other protective clothing. By doing so the risk of is crucial exposure to pathogens and potential contaminants can be minimized, thus safeguarding health and safety of these employees (Oguntona et al., 2012; Lebina et al., 2019).

Despite the legislative enactment of the Factories and Works Act (20 of 1948), the Labour Act (16 of 1985), and the National Social Security Authority (Accident Prevention and Workers Compensation Scheme) Notice No. 68 of 1990, the effective management of occupational health and safety presents a significant challenge for firms in Zimbabwe (Mariwo, 2008; Mugwagwa, 2021). The funeral assurance sector has not been spared from this problem, as most of them exhibit a notable lack of the essential institutional and individual capacity required to ensure a safe working environment, especially for employees

involved in fleet management activities. The magnitude of accidents and illnesses among workers in the funeral assurance sector is considerable, leading to diverse adverse repercussions for employers such as premature retirements, loss of skilled personnel, increased absenteeism, and heightened insurance premiums. A substantial number of these incidents could be prevented through the implementation of robust fleet management and safety practises. Unfortunately, a substantial number of firms in the sector exhibit inadequate level of compliance with health and safety guidelines concerning fleet management practices. This lack of compliance has contributed to elevated risk levels for funeral assurance drivers, particularly in road accidents, when compared to workers in other sectors.

Notwithstanding the critical role of occupational health and safety in protecting workers health and reducing accidents, there is dearth of empirical evidence in the public domain regarding the relationship between fleet management practices, safety culture, and occupational health and safety. Existing studies on fleet management practices have predominantly focused on sectors such as the humanitarian sector (Martinez & Stapleton, 2011; Gitahi & Ogollah, 2014), agriculture (Sørensen & Bochtis, 2010), the public sector (Munuhuwa et al., 2020; Ampiah, 2018; Chiparo et al., 2022), the transport sector (Aflabo et al., 2020), the textile industry (Musau et al., 2017), and the mining sector (Kanyepe, 2023). However, these studies have employed varying variables, such as service delivery and competitive advantage, resulting in conceptual and contextual research gaps. While the existing studies have provided valuable insights into specific sectors, the varied variables used across different studies hinder the establishment of a comprehensive understanding of the overall relationship. Furthermore, limited attention has been given to investigating the effect of fleet management practices on occupational health and safety within the funeral assurance sector. Additionally, few studies have explored the mediating role of safety culture in the relationship between fleet management practices and occupational health and safety.

To address these gaps and enrich the literature on fleet management and occupational health and safety literature, this study aims to provide practical recommendations and interventions that can enhance safety culture and mitigate work-related accidents and mitigate their associated costs and socioeconomic impacts with the

funeral assurance sector. The specific objectives of this study are to determine the effect of driver management, analyse the influence of route planning, assess the impact of vehicle tracking, evaluate the effect of vehicle maintenance, and examine the mediating role of safety culture on the relationship between fleet management practices and occupational health and safety in the funeral assurance sector in Zimbabwe. To achieve these objectives, a survey was conducted among 72 employees of companies in the funeral assurance sector, and structural equation modelling was employed to test the research hypotheses. Finally, the study discusses the results, implications, limitations, and possible future research directions.

2. LİTERATURE REVİEW

2.1 Theories underpinning the study

The study is grounded in social cognitive theory and human factors (HF) theory. The social cognitive theory emphasizes the influence of social factors, individual cognition, and behaviour on learning and performance (Bandura, 2023). In this context, the theory serves as lens to explore the dynamic interactions between fleet management practices, safety culture, employees' perceptions, attitudes, and behaviours concerning occupational health and safety. Additionally, the Human Factors (HF) Theory places a focus on creating systems that take human capabilities including the adoption of technologies and vehicles that are ergonomically designed for optimal performance and safety (Sharma et al., 2021). To bolster occupational health and safety, effective training programs plays a pivotal role in enhancing employee knowledge and skills. The cultivation of a robust safety culture requires effective communication, teamwork, and establishment of well-defined procedures.

2.2 Fleet management practices

Fleet management practices (FMP) involve the administration, coordination, and strategic management of a company's fleet of vehicles (Hu et al., 2015). It encompasses vehicle acquisition and disposal, maintenance, route planning, driver management, scheduling maintenance, fuel management and vehicle tracking (Chiparo et al., 2022). Gitahi and Ogollah (2014) asserted that the primary objective of fleet management practices is to optimize fleet efficiency, reduce costs, enhance driver safety, and support the organization's

operational objectives. This view is supported by Aflabo et al. (2020), who expressed that fleet management ensures efficient and cost-effective fleet operations while prioritizing driver safety, regulatory compliance, and utilizing technology for monitoring and control. This study considers driver management (DRM), vehicle tracking (VHT), route planning (RUP) and vehicle maintenance (VHM) as dimensions of fleet management practices.

2.2.1 Driver management

According to Meiring *et al*. (2015), driver management revolves around promoting safe driving habits. They emphasized that driver management plays a crucial role in enhancing fuel efficiency and reducing accident rates. Rowland and Wishart (2014) explained that a comprehensive pre-start check sheet and ensuring that drivers bear responsibility and accountability for their actions are key factors to optimum driver management. Additionally, ongoing training and coaching ensures that drivers remain updated on safety practices and vehicle maintenance requirements (Michelaraki *et al*., 2021). Driver forums enable drivers to share their experiences, concerns, and suggestions, fostering a supportive environment that promotes learning and improvement. Moreover, it is crucial to establish a culture where drivers feel empowered to intervene in any unsafe or non-compliant acts they encounter (Douglas *et al*., 2009). Furthermore, preparing monthly feedback reports on individual driver performance is essential to monitor progress and address areas requiring improvement (Gonder *et al*., 2012).

2.2.2 Route planning

To meet customer demand punctually, route planning plays a critical activity for transport organizations (Nowakowski *et al*., 2018). This is supported by Franco *et al*. (2020) who observed that route planning enables transporters to utilize the most efficient routes to satisfy customer demands. Similarly, Qin *et al*. (2019) posited that efficient route planning ensures timely delivery while minimizing travel distance and time, thus optimizing resource utilization and customer satisfaction. The use of advanced algorithms and optimization techniques in route planning help organizations to identify the shortest and most cost-effective routes, considering various constraints such as traffic conditions, road networks,

and delivery schedules. Additionally, proper route planning reduces fuel consumption, vehicle emissions, and overall transport costs (Shao *et al*., 2019; Jiang *et al*., 2022).

2.2.3 Vehicle tracking

Vehicle tracking is a digital platform that enables the tracking and management of vehicles using global positioning system (GPS) satellites (Pham *et al*., 2013). They explained that vehicle tracking provides instant and historical information on vehicle speed, routes, halting spots, and idle periods on a map. Similarly, Dukare *et al*. (2015) highlighted the significance of vehicle tracking systems in enabling organizations to gather crucial data from the vehicle, providing them with actionable insights. Hopkins and Hawking (2018) noted that the integration of vehicle tracking systems and in-cab devices automates operational reports, which offer comprehensive insights into vehicle health, driver behaviour metrics (including idling, fatigue, speeding, and harsh usage). The implementation of vehicle tracking in fleet operations has demonstrated to yield various benefits, including cost reduction, enhance productivity, and increase efficiency (Waiyaki and Brits 2015).

2.2.4 Vehicle maintenance

Proper maintenance is essential as a vehicle age and undergoes regular use (Ben-Daya *et al*., 2016). Effective maintenance involves employing sound operating methods and implementing preventative measures (Tsang, 2002). Maintenance strategies can be categorized into three main types: predictive maintenance, corrective maintenance (also known as reactive or breakdown remedial maintenance), and preventative maintenance (Chiparo *et al*., 2022). Predictive maintenance entails replacing existing parts with more advanced ones to enhance equipment performance (Arts, 2013). Proactive maintenance allows for critical analysis of the vehicle, reducing the likelihood of breakdowns. On the other hand, corrective maintenance occurs when a part is only replaced after it has failed due to a breakdown (Gan *et al*., 2022).

2.3 Occupational Health and Safety (OHS)

Occupational health and safety (OHS) play a pivotal role in preserving the well-being of employees by effectively identifying, assessing, and controlling workplace hazards (Khan *et al*., 2014). Similarly, Jain *et al*. (2021) asserted that OHS encompasses the comprehensive protection of workers' safety, health, and welfare, thereby mitigating the occurrence of accidents and injuries and curbing their substantial economic costs. In the context of transport, OHS confronts formidable challenges including road accidents, operational risks, physical hazards, and exposure to deleterious substances (Branscomb *et al*., 2010). Lal (2001) observed that fatigue is a prominent determinant of road accidents. Similarly, Adekoya (2022) explained that fatigue may be exacerbated by emotionally oriented individuals and work-induced stress, both of which contribute to compromised alertness and perilous driving practices. In addition, prolonged work hours and inadequate rest periods compound the risks associated with fatigue. Robust fatigue management necessitates the collective engagement of both drivers and employers, whereby fatigue is diligently identified, assessed, and controlled akin to other occupational hazards (Imperatori, 2017; Magano, 2021). Alcohol consumption has been unequivocally established as a significant risk factor for road accidents, injuries, and fatalities. Concomitantly, alcohol and drug dependencies substantiate the likelihood of work absenteeism due to personal injury (Taylor, 1992; Shigwedha, 2010). Alcohol-related crashes, constituting a substantive proportion of traffic accidents, often engender severe injuries and fatalities. Furthermore, non-compliance with traffic regulations and a proclivity for recurrent traffic violations emerge as key causes of road accidents (Zamorski and Kelley, 2012; Mendoza, 2019; Banerjee *et al*., 2019).

2.4 Safety Culture (SFC)

Safety culture encompasses the values, beliefs, attitudes, and behaviours which shape its commitment to safety and the overall safety climate (Asad *et al*., 2022; Kalteh *et al*., 2021; Tetzlaff *et al*., 2021). Ahamad et al. (2022) asserts that a strong safety culture promotes proactive risk management, and reduces the likelihood of accidents, injuries, and incidents. On the other hand, O'Donovan *et al*. (2019) and Zhang *et al*. (2020) have noted that

leadership plays a vital role in establishing and promoting a safety culture by visibly and actively demonstrating commitment to safety and effectively communicating the importance of safety to all employees. In a positive safety culture, employees actively participate in safety initiatives. Effective communication channels are established to ensure the flow of safety-related information throughout the organization (Trinh and Feng, 2020). Organizations with a positive culture conducts regular risk assessments to identify areas for improvement and implement preventive measures (Kalteh *et al*., 2021). In addition, lessons learned from incidents are shared, and corrective actions are taken to prevent future occurrences (Plett *et al*., 2010). Moreover, feedback mechanisms, such as safety performance evaluations and recognition programs reinforce positive safety behaviours. Furthermore, organizations which prioritize safety culture foster a positive work environment, enhance employee well-being, and ultimately improve overall operational performance (Stemn *et al*., 2019; Kalteh *et al*., 2021).

2.5 Hypotheses Development and Conceptual framework

Literature confirms that effective driver management positively influence occupational health and safety (Newnam and Oxley, 2016; Claxton et al., 2022). A study by Epstein and Roy (2001) found that driver management addresses various behavioural and environmental factors that can have detrimental effects on employee safety. This is supported by Grytnes et al. (2016) who observed that when operating company vehicles, drivers may exhibit a greater inclination towards risk-taking and display a less responsible attitude compared to when using their own vehicles. A study by Filtness and Naweed (2017) found that organizations can proactively implement formal fatigue management programs to mitigate risks effectively. Gander et al. (2011) asserted that fatigue poses a significant threat to employees, equipment, the environment, and even corporate reputations. An effective driver management system can also induce behavioural changes in drivers and mitigate risks, such as drug and alcohol use while operating vehicles (Chiparo et al., 2022). Aggressive and angry expressions on the road pose a multifaceted problem influenced by various factors, including psychological, social, and cultural issues (Morris and Keltner, 2000). Therefore, it is hypothesized:

H1a. *Driver management has a significant positive effect on occupational health safety.*

Numerous studies have demonstrated that route planning plays a crucial role in safeguarding occupational health and safety. A study by Tixier et al. (2016) found that organizations can reduce workers' exposure to hazardous environments, accidents, and work-related injuries by considering variables such as road conditions, traffic congestion, and potential risks along the route. Route planning extends to managing worker fatigue, which is a significant contributor to accidents and injuries (Ferguson et al., 2008). A study by Tan et al. (2023) found that optimized routes that consider driving time, rest breaks, and workload distribution can prevent excessive fatigue, thereby promoting the well-being of drivers. Agatz et al. (2012) explained that when organizations minimize unnecessary travel distances and optimizing scheduling, they can reduce operational costs while simultaneously improving occupational health and safety. In addition, ensuring that employees are well-informed about planned routes, potential hazards, and emergency procedures improve their safety awareness (Zuo et al., 2014). Kanyepe (2023) observed that when drivers are equipped with knowledge on road hazards, they can respond effectively to unexpected situations and minimize the likelihood of accidents. Consequently, a comprehensive approach to route planning encompasses not only the physical aspects but also the communication and training necessary to mitigate risks effectively. This underscores the pivotal role of route planning in promoting occupational health and safety. Route planning plays a multifaceted role in ensuring a safe work environment, minimizing potential hazards, managing driver fatigue and optimum resource allocation, and enhancement of overall safety performance. Therefore, it is hypothesized:

H1b. *Route Planning has a significant positive effect on occupational health safety.*

Vehicle tracking has a significant effect on occupational health and safety. Vehicle tracking allows for the collection of accurate data on driver behaviour, enabling the analysis of strengths and weaknesses, crash risks, and personalized feedback for each driver and trip

(Jensen et al., 2011; Husnjak et al., 2015). A study by Karowich et al. (2006) found that vehicle tracking can consistently reinforce positive driving behaviour and sustain improvements over time. In addition, other scholars found that unsafe driver behaviours (such as using phones while driving, failing to wear seat belts, speeding, or distracting oneself with the radio) can be identified and addressed through vehicle tracking (Salmon et al., 2019; Shaaban et al., 2020). In addition, Luca et al. (2023) observed that vehicle tracking encourages and behaviour change and promotes compliance with safety regulations. A study by Poó et al. (2018) found that when drivers are aware they are being monitored, they are more likely to adhere to speed limits, wear seat belts, reduce idle time, and exercise caution when changing lanes or braking. In addition, vehicle tracking systems enable drivers to communicate with fleet managers, allowing them to provide valuable feedback and report safety concerns before they escalate into accidents or costly issues (Allen and Fee, 2010). Makarova et al. (2020) observed that vehicle tracking systems can extract engine data from in-vehicle diagnostic systems thus identifying potential vehicle problems and facilitate timely vehicle repair and maintenance. Furthermore, vehicle tracking systems plays a crucial role in influencing drivers to comply with traffic laws and adhere to company vehicle operating procedures (Lee et al., 2009). Therefore, it is hypothesized:

H1c. *Vehicle tracking has a significant positive effect on occupational health safety.*

Literature has established that vehicle maintenance has a significant effect on the occupational health and safety (OHS) (Haworth et al., 2000; Afolabi et al., 2021). Vehicle maintenance is of utmost importance in fleet management as it significantly extends the lifespan of the vehicles (Oliveira et al., 2017). Neglecting vehicle maintenance can lead to hazardous situations such as accidents and health problems (Newnam and Goode, 2015; Salmon et al., 2019). A study by Mooren et al. (2014) found that adherence to vehicle maintenance schedules can improve safety for both the vehicle and the driver by reducing the likelihood of mechanical failures. Hussain and Zeadally (2018) explained that cracked windshields, faulty lights and wipers, malfunctioning brakes, and worn-out tires can cause accidents. In addition, failure to service brakes regularly or replace worn-out brake pads can

lead to sudden brake failure, significantly increasing the risk of a collision (Appoh et al., 2021). Similarly, inadequate tire maintenance can increase the risk of rollovers in accidents, necessitating proper tire care. By proactively maintaining vehicles, the firms can prevent potential accident scenarios and enhance driver safety. Therefore, it is hypothesized:

H1d. *Vehicle Maintenance has a significant positive effect on occupational health safety.*

Numerous studies have underscored that safety fleet management practices influence safety culture (Nathan et al., 2015; Li, 2022). A strong dedication from top management fosters a culture that places safety at the forefront, resulting in enhanced fleet safety performance (Day et al., 2018). The implementation of effective safety policies and procedures constitutes a vital aspect of fleet management. Scholars such as Glendon et al. (2016) and Edmondson (2018) found that organizations that possess well-defined safety policies and procedures tend to foster a robust safety culture. This safety culture, in turn, yields superior safety performance outcomes. In addition, providing comprehensive training and education to fleet drivers and managers plays a significant role in influencing safety culture (Nævestad and Bjørnskau, 2012). A study by Patankar (2012) found that continuous training programs that centre on defensive driving, hazard awareness, and emergency response have a significant effect on safety culture. In addition, maintaining vehicle in proper condition and conducting regular maintenance contribute significantly to fostering stronger safety culture (Sexton et al., 2021). Moreover, fostering a positive culture in further enhanced by proper vehicle maintenance (Bisbey et al., 2021). Well-maintained vehicles are less prone to experiencing mechanical failures, thereby reducing the risk of accidents and injuries. By prioritizing regular maintenance, firms can proactively mitigate potential hazards ensuring safer working environment for employees Therefore, it is hypothesized:

H2. *Fleet management has a significant positive effect on safety culture.*

Literature confirms that safety culture significantly influences occupational health and safety (Sharma and Mishra, 2021; Claxton et al., 2022). Safety culture encompasses a

range of vital elements such as management commitment, employee involvement, communication, training, safety policies, and procedures (Zhang et al., 2020). A study conducted by Kuo et al. (2020) found that a positive safety culture is associated with reduced accident rates, decreased injury severity, improved hazard identification, enhanced safety compliance, and increased employee well-being. Extensive research has demonstrated that strong management commitment fosters a safety-conscious climate, raises safety awareness, and encourages employee engagement in safety-related activities (Ricci et al., 2022). Active employee involvement in safety programs and decision-making processes has been identified as a key driver of safety culture (Zhang et al., 2020). This view is supported by Lee et al. (2021) who noted empowering employees to voice safety concerns, participate in safety committees, and contribute to safety initiatives fosters a sense of ownership and responsibility for workplace. In addition, Solmaz et al. (2020) observed that effective communication channels are essential for creating and sustaining a positive safety culture. Regular safety training and educational programs enhance employees' knowledge, skills, and awareness, leading to safer work practices and improved hazard recognition (Hasanzadeh et al., 2019). Organizations that prioritize robust safety policies and procedures consistently demonstrate higher safety performance and better OHS (Otitolaiye et al., 2021. It is important to note that organizational climate and attitudes towards safety within an organization, is closely linked to safety culture. Furthermore, s study by Nabella et al. (2022) revealed that a positive organizational climate fosters trust, open communication, and mutual support, thus creating an environment conducive to safe work practices. Therefore, it is hypothesized:

H3. *Safety culture has a significant positive effect on occupational health safety.*

There is scanty literature on the mediating role of safety culture on the relationship between fleet management practices on occupational health and safety. Fleet management practices constitute a pivotal determinant in ensuring operational safety and mitigating occupational hazards (Boryaev et al., 2020). The impact of these practices on occupational health and safety (OHS) is subject to the prevailing safety culture within an organization

(Khadka et al., 2021). A plethora of literature consistently substantiates the substantial influence of fleet management practices on OHS, resulting in noteworthy reductions in accidents, injuries, and work-related illnesses (Nævestad et al., 2023). Safety culture, encompassing shared values, beliefs, and practices pertaining to safety within an organization, assumes a critical role in cultivating and sustaining a secure working environment (Yorio et al., 2019). A robust safety culture exhibits positive associations with heightened employee compliance, enhanced hazard identification, and improved safety performance (Stemn et al., 2019). Few studies have probed the mediating role of safety culture on the nexus between fleet management practices and OHS. Therefore, it is hypothesized that:

H4*. Safety culture mediates the effect of fleet management practices on occupational health safety.*

Based on the foregoing hypothesized relationships, the conceptual framework of the study is proposed as shown on Figure 1.

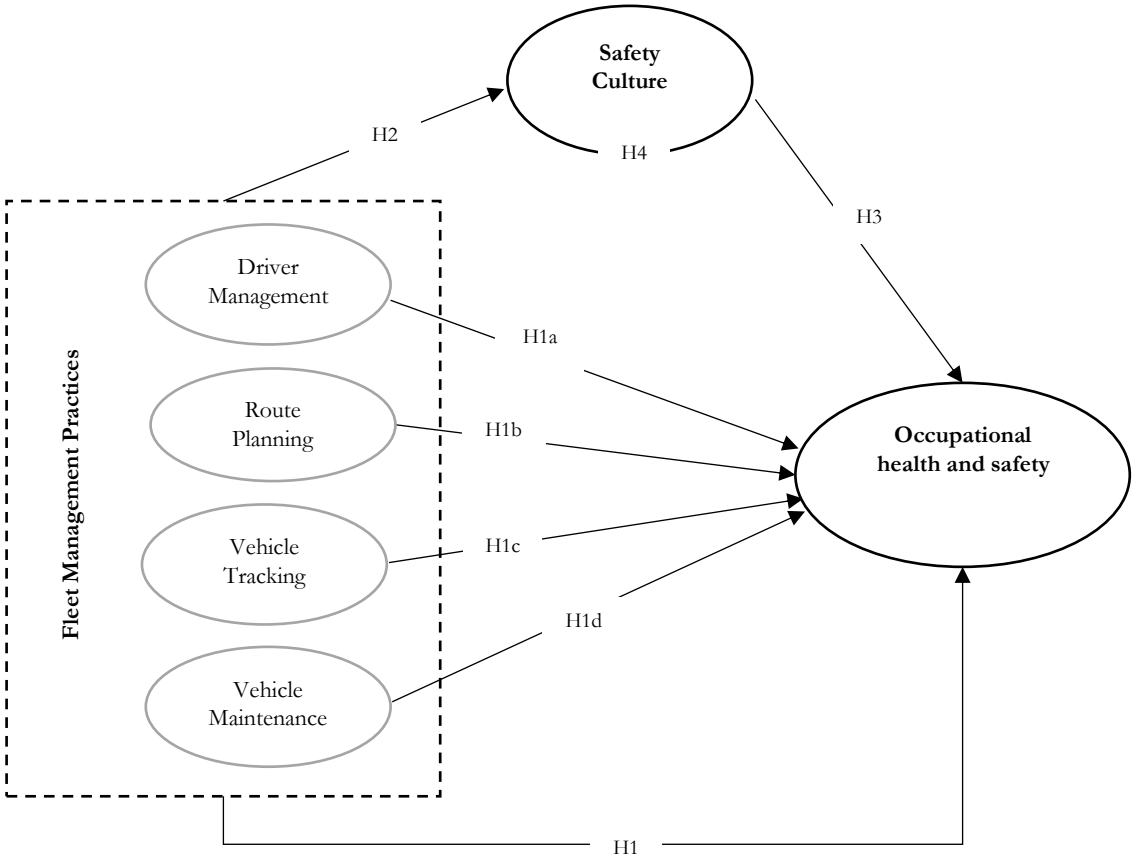

Figure 1: Research Model

3. RESEARCH METHOD

3.1 Sample and data collection

The study employed a cross-sectional survey design to collect data from funeral assurance companies in Harare between November and December 2022. There are 8 registered funeral assurance companies in Harare, Zimbabwe (Insurance and Pension Commission, 2021). From these companies, 72 respondents were selected to participate in the study (i.e., 9 respondents from each company). Simple random sampling method was

used, and respondents were selected from managerial employees from transport, safety health and environment (SHE), and administration departments. Prior to data collection, permission was obtained from each organization and participants were fully informed about the purpose of the study and were assured of the confidentiality of their responses. Furthermore, the research was conducted with honesty, integrity, and objectivity. Out of 72 that agreed to participate, 65 copies of questionnaire were correctly filled and returned representing 90.28% response rate. Table 1 shows the demographic characteristics of the respondents.

Table 1 shows that 73% of the respondents were males, while 27% were females, indicating a gender imbalance in the study sample. This finding underscores the prevalence of male dominance within the funeral assurance sector in Zimbabwe. The predominance of men in the funeral industry can be attributed to several factors, such as cultural expectations and social norms regarding gender roles and acceptable occupations. Funeral-related careers have historically been viewed as physically and emotionally taxing, which may fit with stereotypical notions of masculinity. In addition, the overrepresentation of men can also be attributed historical gender biases and the lack of opportunities for women in the field. The age distribution indicates that a significant majority (88%) of respondents fell within the economically active range of 20 to 50 years, demonstrating their active involvement in the funeral assurance industry throughout the study period. Furthermore, the occupational distribution reveals that 53% of respondents worked in the transport department, 24% in the SHE while 23% were drawn from the administration department. This composition signifies that the study sample comprised individuals with diverse roles, offering a well-rounded comprehension of fleet management practices and occupational health and safety issues.

3.2 Measurement

A structured questionnaire with Likert type questions ranging from 1 (strongly disagree) to 5 (strongly agree) was designed and used to collect data. Likert scale was used to enable respondents to provide valuable and relevant information for the study. Items from the structured questionnaire were borrowed from previous studies and modified to suit the

specific objectives of this study. Measurement items appropriately capture the concept of the measured variables. Driver management (Mean=4.12, Standard Deviation=0.985). Respondents were asked to evaluate the level of driver management in the funeral assurance sector. A sample item for this variable was "The number of accidents per driver has increased''. Route planning (Mean=3.82, Standard Deviation=0.911). Respondents were asked to evaluate the level of route planning in the funeral assurance sector. A sample item for this variable was "The company's route planning system adapts to changes in demand, traffic, and unexpected events''. Vehicle tracking (Mean=4.20, Standard Deviation=0.893). Respondents were asked to evaluate the vehicle tracking in the funeral assurance sector. A sample item for this variable was "The company monitor the speed of vehicles to ensure compliance with speed limits and safe driving practices''. Vehicle maintenance (Mean=3.97, Standard Deviation=0.985). Respondents were asked to evaluate the effectiveness of vehicle maintenance of firms in the funeral assurance sector. A sample item for this variable was "Number of incidents related to vehicle malfunctions or failures have decreased.''. Safety culture (Mean=4.08, Standard Deviation=0.887). Respondents were asked to evaluate the quality of safety culture of firms in the funeral assurance sector. A sample item for this variable was "Employees are aware of potential safety hazards in their work environment.''. Occupational health and safety (Mean=4.13, Standard Deviation=0.872). Respondents were asked to evaluate the extent to which the companies adhere to occupational health and safety standards. A sample item for this variable was "The company comply with OHS laws, regulations, and standards to ensure legal obligations are met.''

Table 1: Demographic Information

Characteristics		Frequency	Percentage (%)
Gender	Male	44	0.73
	Female	14	0.27
Age	20-30	16	0.26
	31-40	24	0.40
	41-50	13	0.22
	51 and above	7	0.12

Department	Transport	31	0.52
	Safety, Health and Environment (SHE)	15	0.25
	Administration	14	0.23

4. RESULT

4.1 Data Validation

The fitness of the model was determined using exploratory factor analysis (EFA) in Amos version 22. The study employed the maximum likelihood estimation (MLE) to estimate the measurement model and fleet management practices was treated as a second order construct with constructs DRM, RUP, VHT and VMR. To determine sampling adequacy, the study used Keiser-Meyer-Oklin (KMO) measure and Bartlett's test of sphericity. The results confirmed the sample adequacy (KMO = 0.875, Approx. Chi-square = 20,401.231, degree of freedom = 576, $p < 0.001$). The results met the minimum requirements as suggested by Field et al. (2012), that the Bartlett's test of sphericity should be significant at $p< 0.05$. Factor loadings for each construct are required to be greater than 0.6, as suggested by Field et al. (2008). The Varimax Rotation method was used to perform factor analysis which converging in 35 iterations with 70.28% of the total variance explained by the data. The solution yielded six components namely DRM, RUP, VHT, VHM, SFC, and OHS. The reliability test indicated satisfactory results all constructs registering Cronbach alpha coefficients above 0.7 indicating high reliability as shown on Table 2. A reliability threshold of 0.70 at a confidence level of $\alpha=0.05$ was considered acceptable.

Table 2: Reliability test

Construct	Number of items	Cronbach's Alpha Coefficient
Driver Management (DRM)	5	.92
Route Planning (RUP)	5	.87
Vehicle Tracking (VHT)	5	.80
Vehicle Maintenance and Repair (VMR)	5	.85
Occupational health and Safety (OHS)	6	.91
Safety Culture (SFC)	5	.90

4.2 Convergent Validity

Model fit indices, standardised factor loadings, reliability, critical ratios and average variance extracted (AVE) were used to determine convergence. CMIN/DF (χ2/Df), Goodness of Fit Index (GFI), Adjusted GFI (AGFI), Normed Fit Index (NFI), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA) were the measurement model fit indices used. Table 3 shows the model fit indices, confirming the adequacy of the model. In addition, standardized factor loadings (λ) and critical ratios (CRs) were examined as shown in Table 4. The critical ratios (CRs) exhibited significant values at $p < 0.001$ and all average variance extracted (AVE) values for the measured constructs surpassed the required threshold of 0.5 (Fornell and Larcker, 1981). Furthermore, all standardized factor loadings for the items exceeded the minimum cut-off of 0.6 (Bagozzi and Yi, 1988). Hence, the preconditions for convergent validity were satisfactorily met and fulfilled.

Table 3: Measurement model fit indices

Fit indices	Initial measurement model	Recommended values	Sources
χ2/Df	3.141	≤3.000	Hair et al (2016); Nayajith and Damunopola (2019)
GFI	.970	>0.900	
AGFI	.929	>0.900	
NFI	.901	>0.900	
TLI	.925	>0.900	
CFI	.914	>0.900	
RMSEA	.047	<0.080	

Table 4: Constructs, items, λ and CR

Constructs	Items	λ	CRs
Driver Management	DRM1	.611	-
	DRM2	.769	10.533***
	DRM3	.702	14.106***
	DRM4	.804	9.116***

	DRM5	.654	9.628***
Route Planning	RUP1	.723	-
	RUP2	.745	9.901***
	RUP3	.732	11.732***
	RUP4	.673	8.627***
	RUP	.668	10.801***
Vehicle Tracking	VHT1	.705	-
	VHT2	.603	11.822***
	VHT3	.603	9.854***
	VHT4	.671	10.285***
	VHT5	.517	8.275***
Vehicle Maintenance	VMR1	.533	10.154***
	VMR2	.605	11.126***
	VMR3	.714	9.626***
	VMR4	.709	9.058***
	VMR5	.633	-
Occupational Health and Safety	OHS1	.671	12.913***
	OHS2	.711	10.702***
	OHS3	.603	9.622***
	OHS4	.571	-
	OHS5	.621	13.402***
Safety Culture	SFC1	.781	-
	SFC2	.602	8.285***
	SFC3	.558	10.449***
	SFC4	.702	9.182***
	SFC5	.623	13.606***

Note: - CR is fixed; *** $p < 0.001$

4.3 Discriminant Validity

To measure discriminant validity, the study matched the average variance extracted (AVE) with the squared inter-construct correlations (SICCs). The conditions for discriminant validity were met because all AVEs exceed the SICCs as recommended by Fornell and Larcker (1981) and Henseler et al. (2014). Findings on discriminant validity are presented in Table 5.

Table 5: AVEs and SICCs

Construct	DRM	RUS	VHT	VMR	OHS	SFC
Driver Management (DRM)	**.715**					
Route Scheduling (RUS)	.227	**.745**				
Vehicle Tracking (ORC)	.499	.401	**.694**			
Vehicle Maintenance (VMR)	.344	.321	.410	**.788**		
Occupational health and safety (OHS)	.287	.347	.284	.252	**.687**	
Safety Culture (SFC)	.314	.265	.311	.274	.302	**.661**

Note(s): Diagonal elements in bold represents AVEs.

4.4 Structural Equation Modelling

Research hypotheses H_{1a}, H_{1b}, H_{1c}, H_{1d}, H_2, and H_3 were tested in AMOS version 22. The maximum likelihood estimation (MLE) was used to estimate the structural model. The model fit indices for the structural model were suitable (CMIN//DF = 2.112; GFI =.915; AGFI =.845; TLI =.918; CFI =.866; and RMSEA =.047). The results of the hypothesis test are presented in Table 6.

Table 6: Hypothesis Testing

Hypotheses	Hypothesised Relationship	SRW	CR	Remarks
H_{1a}	Drive Management → Occupational health and safety	.266	10.996***	Supported
H_{1b}	Route Scheduling → Occupational health and safety	.234	8.335***	Supported
H_{1c}	Vehicle tracking → Occupational health and safety	.227	9.314***	Supported
H_{1d}	Vehicle Maintenance and Repair → Occupational health and safety	.257	6.944***	Supported
H_2	Fleet management practices → Safety Culture	.342	11.954***	Supported
H_3	Safety Culture → Occupational health and safety	.285	8.344***	Supported

Note(s): SRW standardised regression weight, CR critical ratio, *** significant at p< 0.001.

Table 6 provides compelling evidence for the statistical significance of H_{1a}, H_{1b}, H_{1c}, H_{1d}, H_2, and H_3. These results demonstrate a clear and robust association between fleet management practices (namely driver management, route scheduling, and vehicle tracking) and occupational health and safety. Moreover, the findings highlight a significant positive effect between fleet management practices and safety culture, indicating that driver management, route planning, vehicle maintenance, and vehicle tracking play a crucial role in improving the safety culture of an. Furthermore, the findings revealed a positive effect between safety culture and occupational health and safety, underscoring the importance of fostering a strong safety culture within organizations. The study also tested the mediating role of safety culture (SFC) on the influence of fleet management practices (FMP) on occupational health and safety (OHS). The structural model for H_4 shows satisfactory fit indices: CMIN//DF = 2.150; GFI =.918; AGFI =.855; TLI =.928; CFI =.861; and RMSEA =.037. The results are presented in Table 7.

Table 7: H_4 testing results.

Hypothesis	Path	Path Coefficient	Remarks
H_4	SFC mediates the effect of FMP on OHS	0.608***	Partial mediation

Note: ***Significant at p<0.001

Table 7 indicates that H4 was supported, suggesting safety culture partially mediates the relationship between fleet management and occupational health and safety. This suggests that fostering and maintaining a robust safety culture within organizations is crucial for ensuring the well-being and safety of employees who use company vehicles. When organizations prioritize safety values, practices, and norms, they can enhance their occupational health and safety performance, leading to reduced incidents, and increased overall productivity. These findings underscore the significance of promoting and nurturing a positive safety culture as a fundamental component of effective fleet management practices.

5. DISCUSSION AND IMPLICATIONS

This study aims to examine the effect of fleet management practices on occupational health and safety within the funeral assurance sector in Zimbabwe. In addition, the study also tested the mediating role of safety culture in the relationship between fleet management practices and occupational health and safety. While previous studies by Gitahi and Ogollah (2014), Aflabo et al. (2020) Munuhuwa et al. (2020), Chiparo et al. (2022) and Kanyepe (2023) have explored fleet management practices in developed countries, there is a notable research gap in developing nations, especially in the sub-Saharan region. This study addresses this gap by shedding light on the influence of fleet management practices on occupational health and safety within the funeral assurance sector. In addition, the findings of this study confirm the mediating role of safety culture in the relationship between fleet management practices and occupational health and safety. These results contribute to the existing literature on fleet management, occupational health, and safety culture.

Furthermore, the study highlights the significance of considering both fleet management practices and safety culture as crucial factors in promoting occupational health and safety.

5.1 Theoretical Implications

The existing literature on fleet management lacks empirical insights into the specific influence of fleet management practices on occupational health and safety (OHS). A plethora of studies in the literature have been conducted in developed countries, and their findings may not be directly applicable to developing contexts such as the funeral sector in Zimbabwe. Previous research on fleet management has primarily focused on specific areas such as cost control, asset management, routing and scheduling, and fuel management. Moreover, a considerable number of scholars have concentrated on industries like mining, agriculture, humanitarian operations, public sector, transport, construction, and manufacturing. For instance, Martinez and Stapleton (2011) investigated field vehicle fleet management in humanitarian operations, while Sørensen and Bochtis (2010) developed a conceptual model for fleet management in the agriculture sector. Guo et al. (2015) developed and tested an integrative model predicting safety behaviour, but their study was limited to the construction industry. However, there is a paucity of research on the influence of fleet management practices on OHS within the funeral industry. This study aims to address this knowledge gap by examining the specific relationship between fleet management practices and OHS in the funeral sector.

5.2 Practical Implications

Firms in the funeral assurance sector should implement effective fleet management practices to significantly enhance occupational health and safety. In addition, the development of a positive safety culture is of utmost importance. This involves fostering active employee participation in safety initiatives, ensuring adherence to procedures, and a strong emphasis on safety in daily activities. This contributes to improved occupational health and safety outcomes. Firms should strive to cultivate a strong safety culture, as it encourages a greater inclination to prioritize and enforce fleet management practices that align with safety requirements. This establishes an environment where employees feel

motivated to adhere to safety policies and procedures thereby reducing the risk of accidents, injuries, and regulatory non-compliance. A positive safety culture also encourages employee engagement and active participation in safety-related activities. When employees perceive that their organization values safety and supports their well-being, they are more likely to engage in safety initiatives, such as reporting safety concerns, suggesting improvements, and participating in safety training programs. This involvement fosters a safer working environment that promotes risk awareness and proactive risk assessment. Moreover, prioritizing occupational health and safety and promoting a positive safety culture can improve the reputation and brand image of firms in the funeral assurance sector. Customers, clients, and stakeholders value organizations that prioritize employee well-being and demonstrate a strong commitment to safety.

6. FUTURE IMPLICATIONS

This study highlights the significant role of safety culture as a crucial mediating factor between fleet management practices and occupational health and safety (OHS). It emphasizes the essentiality of fostering a positive safety culture within the firms in funeral assurance sector to effectively translate effective fleet management practices into improved OHS. The findings underscore the importance of the development of a safety culture through comprehensive training programs, strong leadership commitment, active employee involvement, and continuous improvement initiatives. Moreover, future research in this area should concentrate on longitudinal studies to provide deeper insights into the long-term effects of safety culture on fleet management practices and OHS. It is also imperative to develop valid and reliable measurement tools to accurately assess safety culture within the context of fleet management. Furthermore, exploring cultural factors specific to the funeral assurance sector would further enrich the understanding of the dynamics and influences shaping safety culture.

REFERENCES

Adekoya, O. (2022). Responsible Management: Promoting Work-Life Balance through Social Sustainability and Green HRM (Doctoral dissertation, University of East London).

Aflabo J., Kraa, J.J., and Agbenyo, L. (2020). Examining the effect of fleet management on competitive advantage in the transport industry. European Journal of Logistics, Purchasing and Supply Chain Management, 8(2), 7–23. https://doi.org/10.37745/ejlpscm/vol8.no2.pp7-23.2020.

Afolabi, F. J., de Beer, P., and Haafkens, J. A. (2021). Can occupational safety and health problems be prevented or not? Exploring the perception of informal automobile artisans in Nigeria. Safety Science, 135, 105097.

Agatz, N., Erera, A., Savelsbergh, M., and Wang, X. (2012). Optimization for dynamic ride-sharing: A review. European Journal of Operational Research, 223(2), 295-303.

Ahamad, M. A., Arifin, K., Abas, A., Mahfudz, M., Cyio, M. B., Khairil, M., ... and Samad, M. A. (2022). Systematic literature review on variables impacting organization's zero accident vision in occupational safety and health perspectives. Sustainability, 14(13), 7523.

Allen, G., and Fee, W. (2010, April). Driving to real-time compliance in land transport. In SPE International Conference on Health, Safety and Environment in Oil and Gas Exploration and Production. OnePetro.

Amponsah-Tawiah, K., and Dartey-Baah, K. (2011). Occupational health and safety: key issues and concerns in Ghana. International Journal of Business and Social Science, 2(14).

Appoh, F., Yunusa-Kaltungo, A., and Sinha, J. K. (2021). Hybrid adaptive model to optimise components replacement strategy: A case study of railway brake blocks failure analysis. Engineering Failure Analysis, 127, 105539.

Arts, J. J. (2013). Spare parts planning and control for maintenance operations. Doctor), Eindhoven University of Technology, Eindhoven. (D175).

Asad, M., Kashif, M., Sheikh, U. A., Asif, M. U., George, S., and Khan, G. U. H. (2022). Synergetic effect of safety culture and safety climate on safety performance in SMEs: does transformation leadership have a moderating role? International journal of occupational safety and ergonomics, 28(3), 1858-1864.

Bandura, A. (2023). Social Cognitive Theory: An Agentic Perspective on Human Nature. John Wiley and Sons.

Banerjee, A., Duflo, E., Keniston, D., and Singh, N. (2019). The efficient deployment of police resources: theory and new evidence from a randomized drunk driving crackdown in India (No. w26224). National Bureau of Economic Research.

Ben-Daya, M., Kumar, U., and Murthy, D. P. (2016). Introduction to maintenance engineering: modelling, optimization and management. John Wiley and Sons.

Bisbey, T. M., Kilcullen, M. P., Thomas, E. J., Ottosen, M. J., Tsao, K., and Salas, E. (2021). Safety culture: An integration of existing models and a framework for understanding its development. Human factors, 63(1), 88-110.

Boryaev, A., Malygin, I., and Marusin, A. (2020). Areas of focus in ensuring the environmental safety of motor transport. Transportation Research Procedia, 50, 68-76.

Botha, N. N., Ansah, E. W., and Apaak, D. (2022). Health and Safety Hazards Confronting Mortuary Attendants. In Sustainable Education and Development–Making Cities and Human Settlements Inclusive, Safe, Resilient, and Sustainable: Proceedings of the Applied Research Conference in Africa (ARCA), 2021 10 (pp. 257-271). Springer International Publishing.

Branscomb, L., Fagan, M., Auerswald, P. E., Ellis, R., and Barcham, R. (2010). Rail transportation of toxic inhalation hazards: policy responses to the safety and security externality. Available at SSRN 2397482.

Chiparo, J., Tukuta, M. and Musanzikwa, M. (2022). Vehicle Fleet Management Practices and Service Delivery in State Owned Enterprises in Zimbabwe. Journal of Transportation Technologies, 12, 159-171. https://doi.org/10.4236/jtts.2022.122010.

Claxton, G., Hosie, P., and Sharma, P. (2022). Toward an effective occupational health and safety culture: A multiple stakeholder perspective. Journal of safety research.

Day, R. M., Demski, R. J., Pronovost, P. J., Sutcliffe, K. M., Kasda, E. M., Maragakis, L. L., ... and Winner, L. (2018). Operating management system for high reliability: Leadership, accountability, learning and innovation in healthcare. Journal of Patient Safety and Risk Management, 23(4), 155-166.

Douglas, M. A., Swartz, S. M., Richey, R. G., and Roberts, M. D. (2019). Risky business: Investigating influences on large truck drivers' safety attitudes and intentions. Journal of safety research, 70, 1-11.

Dukare, S. S., Patil, D. A., and Rane, K. P. (2015). Vehicle tracking, monitoring and alerting system: a review. International Journal of Computer Applications, 119(10).

Edmondson, A. C. (2018). The fearless organization: Creating psychological safety in the workplace for learning, innovation, and growth. John Wiley and Sons.

Epstein, M. J., and Roy, M. J. (2001). Sustainability in action: Identifying and measuring the key performance drivers. Long range planning, 34(5), 585-604.

Ferguson, S. A., Lamond, N., Kandelaars, K., Jay, S. M., and Dawson, D. (2008). The impact of short, irregular sleep opportunities at sea on the alertness of marine pilots working extended hours. Chronobiology international, 25(2-3), 399-411.

Filtness, A. J., and Naweed, A. (2017). Causes, consequences and countermeasures to driver fatigue in the rail industry: The train driver perspective. Applied ergonomics, 60, 12-21.

Franco, P., Johnston, R., and McCormick, E. (2020). Demand responsive transport: Generation of activity patterns from mobile phone network data to support the operation of new mobility services. Transportation Research Part A: Policy and Practice, 131, 244-266.

Gaitens, J., Condon, M., Fernandes, E., and McDiarmid, M. (2021). COVID-19 and essential workers: a narrative review of health outcomes and moral injury. International Journal of Environmental Research and Public Health, 18(4), 1446.

Gan, S., Song, Z., and Zhang, L. (2022). A maintenance strategy based on system reliability considering imperfect corrective maintenance and shocks. Computers and Industrial Engineering, 164, 107886.

Gander, P., Hartley, L., Powell, D., Cabon, P., Hitchcock, E., Mills, A., and Popkin, S. (2011). Fatigue risk management: Organizational factors at the regulatory and industry/company level. Accident Analysis and Prevention, 43(2), 573-590.

Gitahi, P., and Ogollah, K. (2014). Influence of Fleet Management practices on service delivery to refugees in United Nations High Commissioner for Refugees Kenya programme. European Journal of Business Management, 2(1), 1-18.

Glendon, A. I., Clarke, S., and McKenna, E. (2016). Human safety and risk management. Crc Press.

Gonder, J., Earleywine, M., and Sparks, W. (2012). Analyzing vehicle fuel saving opportunities

through intelligent driver feedback (No. NREL/CP-5400-53864). National Renewable Energy Lab. (NREL), Golden, CO (United States).

Grytnes, R., Shibuya, H., Dyreborg, J., Grøn, S., and Cleal, B. (2016). Too individualistic for safety culture? Non-traffic related work safety among heavy goods vehicle drivers. Transportation research part F: traffic psychology and behaviour, 40, 145-155.

Hasanzadeh, S., Dao, B., Esmaeili, B., and Dodd, M. D. (2019). Role of personality in construction safety: investigating the relationships between personality, attentional failure, and hazard identification under fall-hazard conditions. Journal of construction engineering and management, 145(9), 04019052.

Haworth, N., Tingvall, C., and Kowadlo, N. (2000). Review of best practice road safety initiatives in the corporate and/or business environment. Monash University Accident Research Centre Reports, 166, 119.

Hopkins, J., and Hawking, P. (2018). Big Data Analytics and IoT in logistics: a case study. The International Journal of Logistics Management.

Hu, Y. C., Chiu, Y. J., Hsu, C. S., and Chang, Y. Y. (2015). Identifying key factors for introducing GPS-based fleet management systems to the logistics industry. Mathematical Problems in Engineering, 2015.

Husnjak, S., Peraković, D., Forenbacher, I., and Mumdziev, M. (2015). Telematics system in usage based motor insurance. Procedia Engineering, 100, 816-825.

Hussain, R., and Zeadally, S. (2018). Autonomous cars: Research results, issues, and future challenges. IEEE Communications Surveys and Tutorials, 21(2), 1275-1313.

Imperatori, B. (2017). Engagement and disengagement at work: Drivers and organizational practices to sustain employee passion and performance. Springer.

Jain, A., Hassard, J., Leka, S., Di Tecco, C., and Iavicoli, S. (2021). The role of occupational health services in psychosocial risk management and the promotion of mental health and well-being at work. International Journal of Environmental Research and Public Health, 18(7), 3632.

Jensen, M., Wagner, J., and Alexander, K. (2011). Analysis of in-vehicle driver behaviour data for improved safety. International journal of vehicle safety, 5(3), 197-212.

Jiang, S., Zhang, Y., Liu, R., Jafari, M., and Kharbeche, M. (2022). Data-driven optimization for dynamic shortest path problem considering traffic safety. IEEE Transactions on Intelligent Transportation Systems, 23(10), 18237-18252.

Jilcha, K., and Kitaw, D. (2016). A literature review on global occupational safety and health practice and accidents severity. International Journal for Quality Research, 10(2), 279.

Kachilala, T., and Dumba, S. (2022). Drivers of and barriers to the adoption of green fleet management practices in Zimbabwe: A case study of the funeral assurance sector. Journal of Transport and Supply Chain Management, 16, 13.

Kalteh, H. O., Mortazavi, S. B., Mohammadi, E., and Salesi, M. (2021). The relationship between safety culture and safety climate and safety performance: a systematic review. International journal of occupational safety and ergonomics, 27(1), 206-216.

Kanyepe, J. (2023) Transport management practices and performance of diamond mining companies in Zimbabwe, Cogent Business and Management, 10:2, DOI: 10.1080/23311975.2023.2216429

Karowich, P., Mallett, C. D., Woods, C., and Cowie, H. (2006, April). Creating a culture of safe driving behaviors. In SPE International Health, Safety and Environment Conference. OnePetro.

Khadka, A., Gautam, P., Joshi, E., Pilkington, P., Parkin, J., Joshi, S. K., and Mytton, J. (2021). Road safety and heavy goods vehicle driving in LMICs: Qualitative evidence from Nepal. Journal of Transport and Health, 23, 101247.

Khan, W. A., Mustaq, T., and Tabassum, A. (2014). Occupational health, safety and risk analysis. International Journal of Science, Environment and Technology, 3(4), 1336-13

Kuo, N. T., Cheng, Y. S., Chang, K. C., and Ying, W. H. (2020). Establishing a measurement scale for safety culture in the hotel industry. Journal of Hospitality and Tourism Management, 42, 12-28.

Lal, S. K. L. (2001). The psychophysiology of driver fatigue/drowsiness: electroencephalography, electro-oculogram, electrocardiogram and psychological effects (Doctoral dissertation).

Lebina, L., Maphakula, D., Makete, F., Omar, T., Martinson, N., Ringane, A., and Milovanovic, M. (2019). An observational study of safe and risky practices in funeral homes in South Africa. South African Medical Journal, 109(8), 587-591.

Lee, J., Huang, Y. H., Dainoff, M. J., and He, Y. (2021). Where to focus? Insights from safety personnel and external safety consultants on lessons learned about safety climate interventions–A qualitative approach. Journal of safety research, 79, 51-67.

Li, A. K. (2022). Beyond algorithmic control: flexibility, intermediaries, and paradox in the on-demand economy. Information, Communication and Society, 25(14), 2012-2027.

Luca, O., Andrei, L., Iacoboaea, C., and Gaman, F. (2023). Unveiling the Hidden Effects of Automated Vehicles on "Do No Significant Harm" Components. Sustainability, 15(14), .

Magano, K. D. (2021). Investigating change fatigue, burnout, work engagement, organisational commitment and turnover intention in the South African insurance industry (Doctoral dissertation, North-West University (South Africa)).

Makarova, I., Buyvol, P., Gabsalikhova, L., Pashkevich, A., Tsybunov, E., and Boyko, A. (2020, December). Improving the reliability of autonomous vehicles in a branded service system using big data. In 2020 21st International Conference on Research and Education in Mechatronics (REM) (pp. 1-6). IEEE.

Mariwo, T. (2008). Working conditions and labour relations in the private security industry in Zimbabwe: A research paper. ILO Sub-Regional Office for Southern Africa.

Mbara, T. A. T. E. N. D. A., and Pisa, N. (2019). An analysis of impediments to deliver sustainable transport in cities of developing countries: the case of Harare, Zimbabwe. WIT Trans Built Environ, 182, 241-252.

Mbara, T. C., Nyarirangwe, M., and Mukwashi, T. (2010). Challenges of raising road maintenance funds in developing countries: An analysis of road tolling in Zimbabwe. Journal of transport and supply chain management, 4(1), 151-175.

Meiring, G. A. M., and Myburgh, H. C. (2015). A review of intelligent driving style analysis systems and related artificial intelligence algorithms. Sensors, 15(12), 30653-30682.

Mendoza, R. L. (2019, April). Why any seatbelt mandate is an infinitely iterated Prisoner's Dilemma: a health economics perspective. In Forum for Social Economics (Vol. 48, No.

2, pp. 194-215). Routledge.
Michelaraki, E., Katrakazas, C., Yannis, G., Filtness, A., Talbot, R., Hancox, G., ... and Taveira, R. (2021). Post-trip safety interventions: State-of-the-art, challenges, and practical implications. Journal of safety research, 77, 67-85.
Mooren, L., Grzebieta, R., Williamson, A., Olivier, J., and Friswell, R. (2014). Safety management for heavy vehicle transport: A review of the literature. Safety science, 62, 79-89.
Morris, M. W., and Keltner, D. (2000). How emotions work: The social functions of emotional expression in negotiations. Research in organizational behavior, 22, 1-50.
Mugwagwa, E. (2021). Knowledge, Attitudes and Practices on Safety, Health, Environment and Quality Guidelines Among Construction Workers in Seke District, Mashonaland East Province, Zimbabwe. University of Johannesburg (South Africa).
Munuhwa, S., Govere, E., Chibaro, M., Chikwere, D., and Kanyepe, J. (2020). Green fleet management practices in public service delivery by urban councils: Case of Makonde District in Mashonaland West Province of Zimbabwe. Journal of Economics and Sustainable Development, 11(10), 165-175.
Nabella, S. D., Rivaldo, Y., Kurniawan, R., Nurmayunita, N., Sari, D. P., Luran, M. F., ... and Wulandari, K. (2022). The Influence of Leadership and Organizational Culture Mediated by Organizational Climate on Governance at Senior High School in Batam City. Journal of Educational and Social Research, 12(5), 119-130.
Nævestad, T. O., and Bjørnskau, T. (2012). How can the safety culture perspective be applied to road traffic? Transport reviews, 32(2), 139-154.
Nævestad, T. O., Milch, V., and Blom, J. (2023). Traffic safety effects of economic driving in trucking companies. Transportation research part F: traffic psychology and behaviour, 95, 322-342.
Nathan, A. J., and Scobell, A. (2015). China's search for security. Columbia University Press.
Newnam, S., and Goode, N. (2015). Do not blame the driver: A systems analysis of the causes of road freight crashes. Accident Analysis and Prevention, 76, 141-151.
Newnam, S., and Oxley, J. (2016). A program in safety management for the occupational driver: Conceptual development and implementation case study. Safety science, 84,

238-244.

Nowakowski, P., Szwarc, K., and Boryczka, U. (2018). Vehicle route planning in e-waste mobile collection on demand supported by artificial intelligence algorithms. Transportation Research Part D: Transport and Environment, 63, 1-22.

O'Donovan, R., Ward, M., De Brún, A., and McAuliffe, E. (2019). Safety culture in health care teams: A narrative review of the literature. Journal of nursing management, 27(5), 871

Oguntona, T. S., Adedeji, O. O., and Ogunsola, D. (2012). Awareness and use of personnel protective equipment (ppe) and practice of safety precautions among funeral home workers in Lagos state. Transnational Journal of Science and Technology, 2(9), 47-53.

Oliveira, B. B., Carravilla, M. A., and Oliveira, J. F. (2017). Fleet and revenue management in car rental companies: A literature review and an integrated conceptual framework. Omega, 71, 11-26.

Otitolaiye, V. O., Abd Aziz, F. S., Munauwar, M., and Omer, F. (2021). The Relationship Between Organizational Safety Culture and Organization Safety Performance. The Mediating Role of Safety Management System. International Journal of Occupational Safety and Health, 11(3), 148-157.

Patankar, M. S. (2012). Safety culture: Building and sustaining a cultural change in aviation and healthcare. Ashgate Publishing, Ltd.

Pham, H. D., Drieberg, M., and Nguyen, C. C. (2013, December). Development of vehicle tracking system using GPS and GSM modem. In 2013 IEEE conference on open systems (ICOS) (pp. 89-94). IEEE.

Plett, D., Boudreaux, E., and Holtke, G. (2010, April). Systemic means of ensuring quality incident investigations-Corrective actions and sharing lessons learned make a difference. In SPE International Conference on Health, Safety and Environment in Oil and Gas Exploration and Production. OnePetro.

Poó, F. M., Ledesma, R. D., and López, S. S. (2018). The taxi industry: Working conditions and health of drivers, a literature review. Transport reviews, 38(3), 394-411.2

Puplampu, B. B., and Quartey, S. H. (2012). Key issues on occupational health and safety practices in Ghana: A review. International journal of business and social

science, 3(19).

Qin, G., Tao, F., and Li, L. (2019). A vehicle routing optimization problem for cold chain logistics considering customer satisfaction and carbon emissions. International journal of environmental research and public health, 16(4), 576.

Ricci, F., Panari, C., and Pelosi, A. (2022). Safety compliance in a sample of Italian mechanical companies: The role of knowledge and safety climate. European journal of investigation in health, psychology and education, 12(3), 281-294.

Roche, N., Darzins, S., and Stuckey, R. (2022). Funeral industry workers' work health and safety in Australia and Ireland. OMEGA-Journal of Death and Dying, 00302228221075289.

Rowland, B., and Wishart, D. (2014). Organizational work-related road safety situational analysis: More than just an audit tool. In Proceedings of the 24th Canadian Multidisciplinary Road Safety Conference (pp. 1-15). Canadian Association of Road Safety Professionals.

Salmon, P. M., Read, G. J., Beanland, V., Thompson, J., Filtness, A. J., Hulme, A., ... and Johnston, I. (2019). Bad behaviour or societal failure? Perceptions of the factors contributing to drivers' engagement in the fatal five driving behaviours. Applied ergonomics, 74, 162

Sexton, J. B., Adair, K. C., Profit, J., Bae, J., Rehder, K. J., Gosselin, T., ... and Frankel, A. (2021). Safety culture and workforce well-being associations with positive leadership walkrounds. The Joint Commission Journal on Quality and Patient Safety, 47(7), 403

Shaaban, K., Gaweesh, S., and Ahmed, M. M. (2020). Investigating in-vehicle distracting activities and crash risks for young drivers using structural equation modeling. PLoS one, 15(7), e0235325.

Shao, S., Xu, G., and Li, M. (2019). The design of an IoT-based route optimization system: A smart product-service system (SPSS) approach. Advanced engineering informatics, 42, 101006.

Sharma, R., and Mishra, D. K. (2021). An analysis of thematic structure of research trends in occupational health and safety concerning safety culture and environmental management. Journal of Cleaner Production, 281, 125346.

Sharma, S. K., Singh, S. K., and Panja, S. C. (2021). Human factors of vehicle automation.

In Autonomous Driving and Advanced Driver-Assistance Systems (ADAS) (pp. 335-358). CRC Press.

Shigwedha, A. A. K. T. (2010). Personal and Work-Related Problems of Employees at the Social Security Commission in Namibia (Doctoral dissertation, University of the Witwatersrand).

Solmaz, M. S., Erdem, P., and Bariş, G. (2020). The effects of safety culture on occupational accidents: An explanatory study in container terminals of Turkey. International Journal of Environment and Geoinformatics, 7(3), 356-364.

Sørensen, C. G., Fountas, S., Nash, E., Pesonen, L., Bochtis, D., Pedersen, S. M., ... and Blackmore, S. B. (2010). Conceptual model of a future farm management information system. Computers and electronics in agriculture, 72(1), 37-47.

Stemn, E., Bofinger, C., Cliff, D., and Hassall, M. E. (2019). Examining the relationship between safety culture maturity and safety performance of the mining industry. Safety science, 113, 345-355.

Tan, W., Yuan, X., Zhang, X., and Wang, J. (2023). An enhanced adaptive large neighborhood search for fatigue-conscious electric vehicle routing and scheduling problem considering driver heterogeneity. Expert Systems with Applications, 218, 119644.

Taylor, C. (1992). An analysis of negotiated drug testing provisions in the railroad industry.

Tetzlaff, E. J., Goggins, K. A., Pegoraro, A. L., Dorman, S. C., Pakalnis, V., and Eger, T. R. (2021). Safety culture: a retrospective analysis of occupational health and safety mining reports. Safety and health at work, 12(2), 201-208.

Tixier, A. J. P., Hallowell, M. R., Rajagopalan, B., and Bowman, D. (2016). Automated content analysis for construction safety: A natural language processing system to extract precursors and outcomes from unstructured injury reports. Automation in Construction, 62, 45-56.

Trinh, M. T., and Feng, Y. (2020). Impact of project complexity on construction safety performance: Moderating role of resilient safety culture. Journal of construction engineering and management, 146(2), 04019103.

Tsang, A. H. (2002). Strategic dimensions of maintenance management. Journal of Quality in maintenance Engineering, 8(1), 7-39.

Waiyaki, E. C., and Brits, A. (2015). Leveraging Telematics for Optimal Fleet Performance. International Journal of Business, 1(1).

Yorio, P. L., Edwards, J., and Hoeneveld, D. (2019). Safety culture across cultures. Safety science, 120, 402-410.

Zamorski, M. A., and Kelley, A. M. (2012). Risky driving behaviour. Psychological aspects of deployment and health behaviours, 5-1.

Zhang, J., Fu, J., Hao, H., Fu, G., Nie, F., and Zhang, W. (2020). Root causes of coal mine accidents: Characteristics of safety culture deficiencies based on accident statistics. Process Safety and Environmental Protection, 136, 78-91.

Zuo, X., Chen, C., Tan, W., and Zhou, M. (2014). Vehicle scheduling of an urban bus line via an improved multiobjective genetic algorithm. IEEE Transactions on intelligent transportation systems, 16(2), 1030-1041.