

Review of Cross-Cultural Adaptation of OHS Management in Malaysian Construction by Chinese Contractors

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ABSTRACT

This research determines how Occupational Health and Safety (OHS) management practice was implemented by Chinese contractors in the Malaysian construction industry via cross-cultural adaptation. As Chinese infrastructure projects grow more internationalised, especially with the Belt and Road Initiative (BRI), localisation of OHS strategies is both a compliance and strategic rule. Thematic analysis of 23 peer-reviewed articles and official reports from Malaysian and Chinese institutions was done using a qualitative secondary data approach. Five major strands emerged: strategic governing alignment, cross-cultural competence, organisational pressure, reluctance in CSR implementation, and digitalisation of OHS systems. Though the Malaysian national framework (OSHMP25 and Construction Industry Transformation Programme, CITP) offers structured OHS expectations, Chinese contractors often face barriers like culture, uneven application, and stakeholder excellence gaps. However, firms investing in intercultural training, stakeholder cooperation, and digitalisation (e.g., Building Information Modelling, BIM) tend to better integrate OHS with local practices. The research concludes localisation of OHS is not just regulatory compliance, but about adopting a safety culture and communication practices, and integrating tech solutions into host country norms. The study offers applicable suggestions to create localised safety approaches, improve communication, harmonise construction audits, and use digital tech for safer, more inclusive international constructions.

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Contribution/Originality: This study builds upon the existing literature on cross-cultural OHS localisation among Chinese contractors in Malaysia, applies a thematic qualitative estimation methodology that is based on secondary data analysis, and introduces a new conceptual framework of combining regulatory adaptation, cultural

competence, and digital safety systems in international construction projects.

1. Introduction

Belt and Road Initiative (BRI) has fuelled the doubling of the Chinese construction giants into the various overseas markets, and the country of Malaysia has become the highest beneficiary among the host countries. With its booming infrastructure development, Malaysia has embraced massive projects by the Chinese, both state-owned and privately owned companies, such as East Coast Rail Link (ECRL), ports and industrial parks (Lim et al., 2022). Nevertheless, such cross-border partnership introduces its operational issues, in which one area is Occupational Health and Safety (OHS) management. The safety culture, regulatory framework, and workforce development in China and Malaysia are too diverse to necessitate a complex adaptation and localisation process (Zhang et al., 2020). These factors and difficulties especially occur in the construction business, where accident rates were high and there was a workforce that was multilingual. Consequently, it becomes essential to establish how Chinese contractors negotiate, embrace, and internalise the local safety regulations and cultural practices in enhancing project performance and the health of workers.

Despite the emerging bodies of literature about international construction norms of practice and OHS conformance, the bulk of the studies either place emphasis on industry-generalised. There is still a gap in the research into the influence of cross-cultural factors on the localisation of safety practices within a particular project environment. Malaysia poses a unique example with having a multi-ethnic workforce, a comparatively advanced regulatory system and the growing involvement with Chinese companies (Xia et al., 2018). Targeting this context, the research contributes to filling in a research gap regarding the real-life, cultural, and regulatory processes that influence the OHS management in cross-border initiatives. Such dynamics are significant not only to academic scholarship but also to policy-makers, project managers, and multinational enterprises to reduce health and safety risks and maximise the effectiveness of cross-border collaboration.

Although Chinese construction companies make a great deal towards the development of the Malaysian infrastructure, the companies have a problem with the inability to effectively localise OHS practices. Thus, creating a gap in compliance and cultural misalignment as well as failure in communication, which ultimately impairs the safety of its workers.

This study will be restricted to the study of Chinese construction firms that are operating in Malaysia within the BRI works. It is limited to secondary data, qualitative in nature, given in peer-reviewed literature and case studies, and does not entail primary field research. Results cannot necessarily be extrapolated to non-BRI and non-Malaysian settings, but they can share the same postulates.

1.1. Research Aims and Objectives

The current research is focused on studying the behaviour of the Chinese construction companies regarding the adjustment of their occupational health and safety management systems to the rules and culture of Malaysia.

The objectives of the study are:

- i. To determine the important practices that the Chinese firms employ in the localisation of OHS systems in Malaysia.
- ii. To evaluate the regulatory and cultural issues that are experienced during the process of adaptation.
- iii. To examine how training, communication, and governance structures determine the effectiveness of OHS.
- iv. To suggest more sustainable and cross-cultural OHS integration.

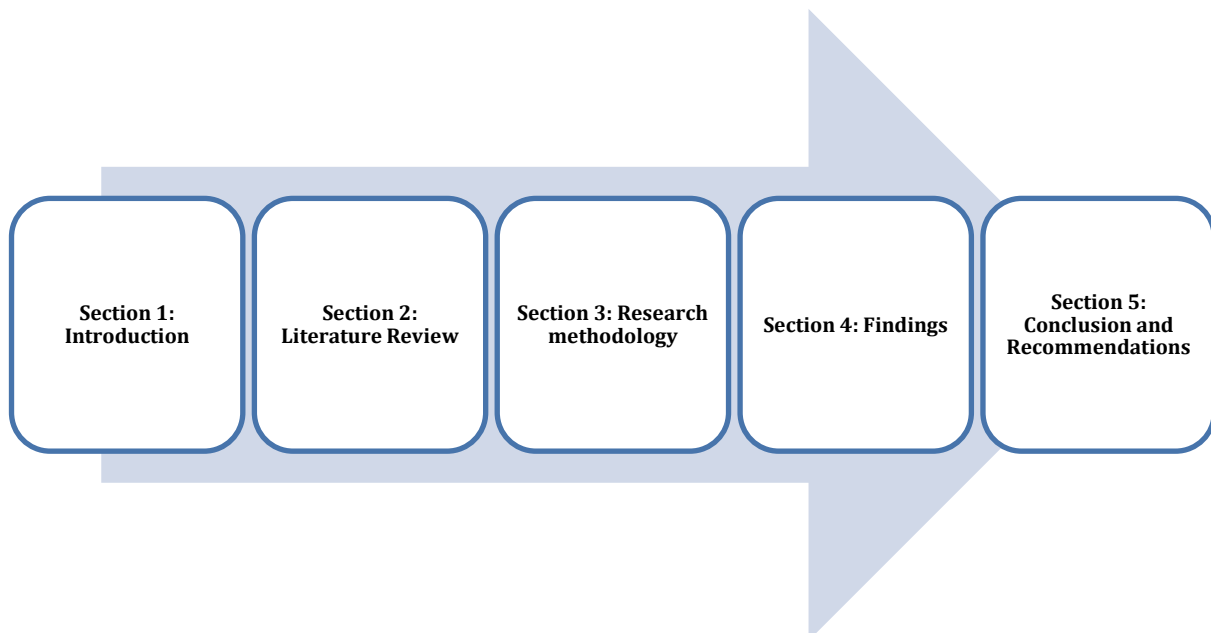
1.4. Research Questions

- i. RQ1. What are the tidal forces on Chinese construction companies for their OHS usage in Malaysia?
- ii. RQ2. Which are the regulatory, cultural and organisational issues in this localisation process?
- iii. RQ3. What are the training and communications options that enhance OHS performance in transnational construction?
- iv. RQ4. What are some of the best practices that can be advised to maximise cross-cultural implementation of OHS?

1.5. Research Structure

The structure of the research is as shown in Figure 1.

Figure 1: Structure of the research



Source: Author

2. Literature Review

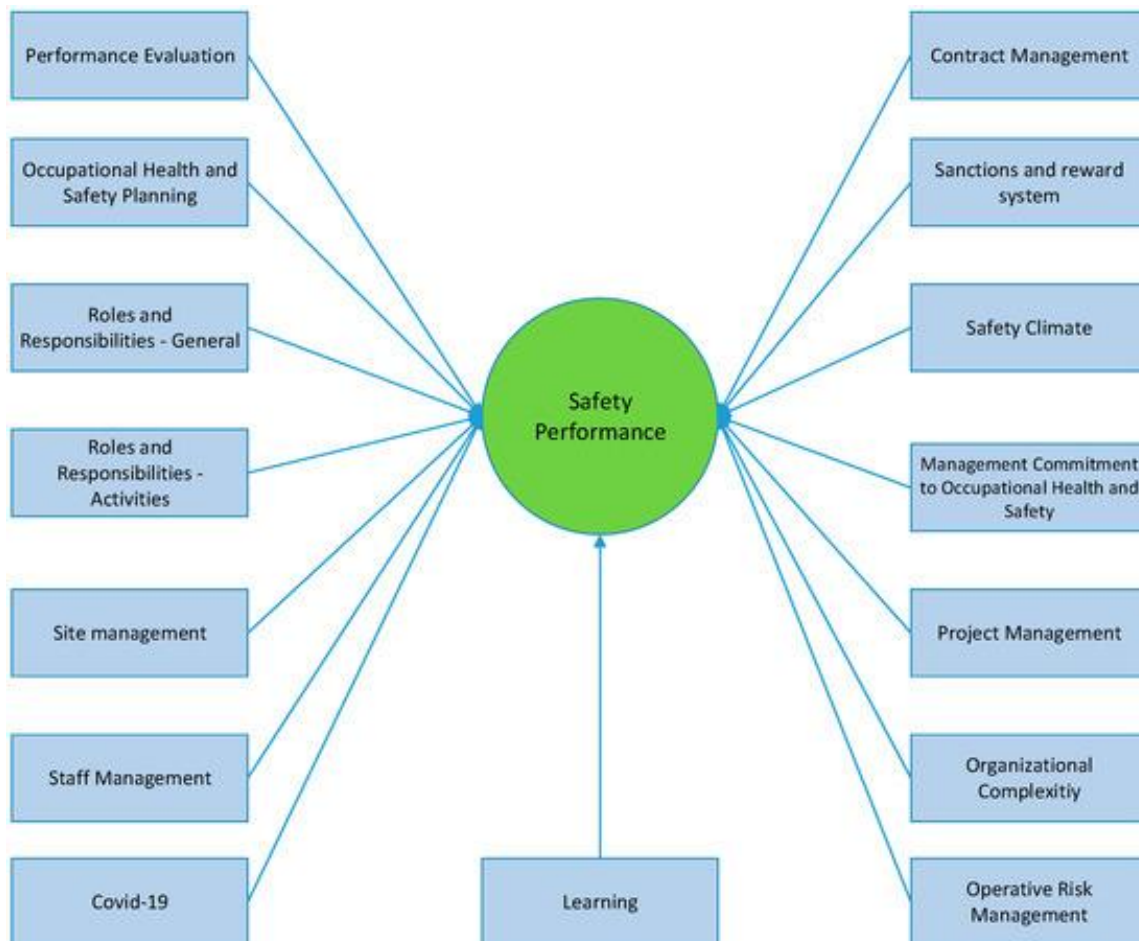
International construction projects are increasingly making Occupational Health and Safety (OHS) management an essential consideration because firms are increasingly operating in different legal, cultural and economic jurisdictions. This part discusses the prevailing body of research about OHS localisation in international construction, and it focuses on Chinese contractors doing business in a foreign land. It combines such major themes as adaptability of regulation, cultural accommodation, workforce diversification,

training issues, and communication. The analysis equally establishes research gaps in the available literature, especially the absence of country case studies of Malaysia in the Belt and Road Initiative (BRI).

2.2. Theoretical Framework: Localisation and Cross-Cultural Safety Management

Localisation idea of international business entails the process through which organisations settle the organisational practices to comply with the social, legal and even cultural framework of the host nation (Fregidou-Malama & Hyder, 2018). Localisation is the translation of international and national safety standards into nationally compliant, culturally competent awareness when applied to the domain of OHS (Figure 2). The idea of cultural dimensions theory is frequently used to spread cognitions on the national peculiarities in risk perception, communication approaches (Wang et al., 2017). Similarly, the degree of distance between the sources of power that influence the safety culture of the construction sites.

Figure 2: Conceptual Framework of OHS Localisation



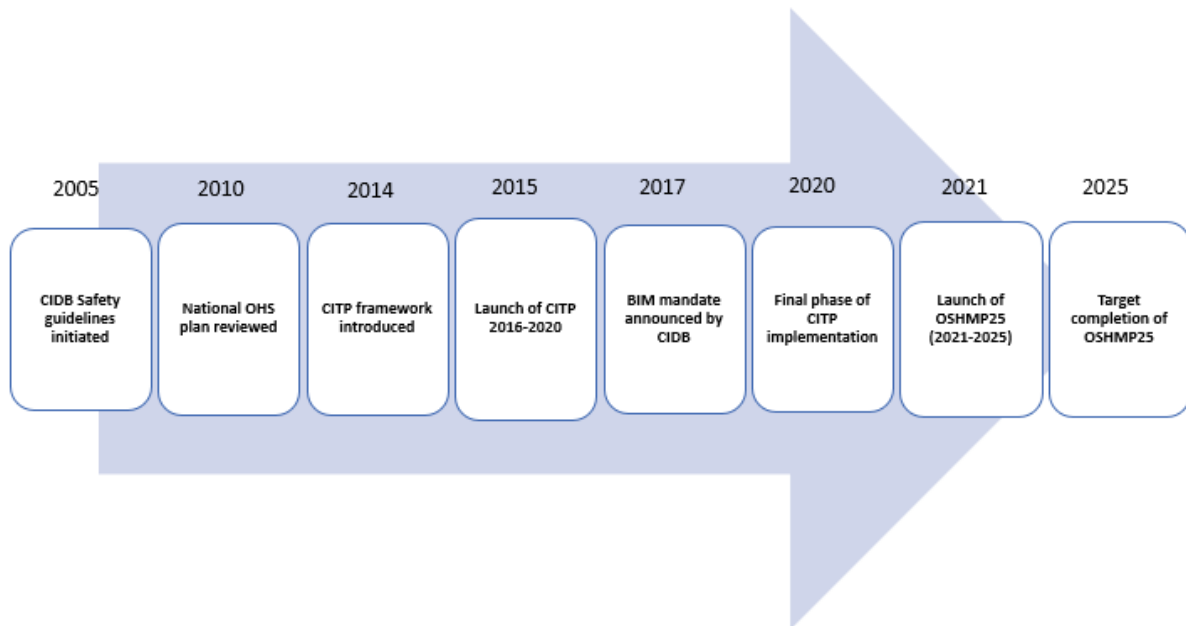
Source: Dimitriou & Papakostas, 2022

2.2. Global Trends in OHS Management in International Construction

The transgression of the construction projects to worldly scenes has brought another set of safety challenges. According to a study by Caban-Martinez et al. (2019), the rate of

accidents in the sector is still high since its work arrangements are temporary, there were many subcontractors, and the use of language. The International Labour Organisation (2021) also adds that an average of over 60,000 construction jobs are lost every year following fatal accidents, which is why harmonised safety systems are important (Lingard, 2013). When a project is cross-border, it often complicates safety management in the form of jurisdiction overlap and ambiguity of compliance.

Figure 3: Timeline of Malaysian OHS Policy Development (2005–2025)



Source: Author

Figure 3 shows the timeline of Malaysian OHS policy development (2005-2025). Reimann et al. (2015) are quick to note that multinationals are often unable to reconcile home-country regulations that are quite strict with host countries' ones that are not enforceable. On the other hand, other developing countries are becoming stricter with their regulations, such as Malaysia, and this introduces complications for foreign companies in adapting to these new changes.

2.3. Regulatory Adaptation in Foreign Markets

Some researchers have examined the adaptation process of construction multinationals to the OHS regulations of a host country. Guttermann (2023) observes that companies are expected to strive to keep the local law and still uphold those corporate standards established within the firm. In the case of Chinese companies, there is usually an imbalance between internal conformity and external conformity, particularly during the initial implementation of the projects. According to the study conducted by Ganesan (2018), Chinese state-owned enterprises (SOEs) in Southeast Asia do not always comply entirely with local safety reporting systems, which puts them into conflict with the regulatory powers.

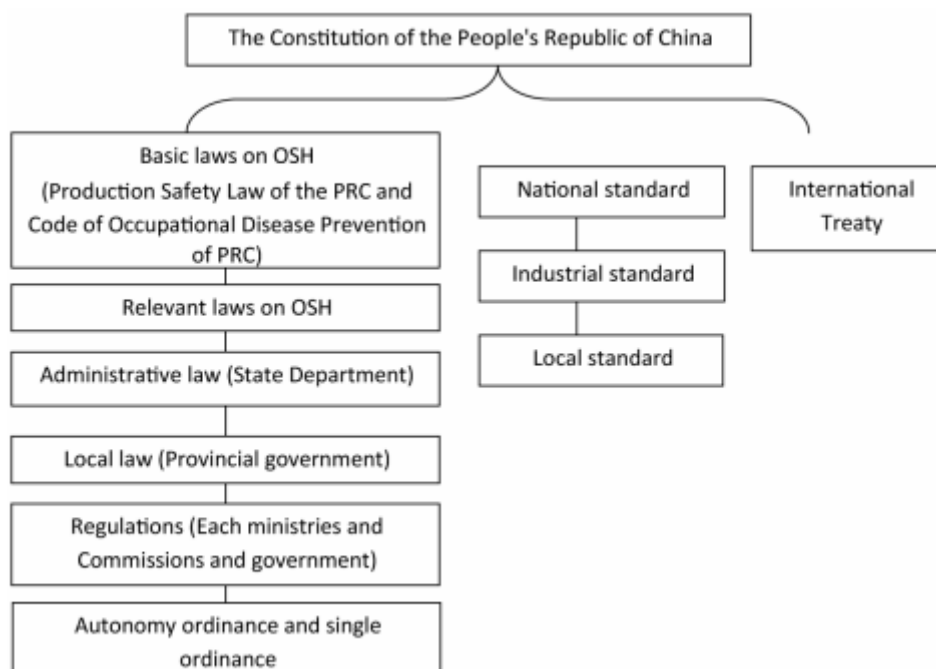
In Malaysia, the Occupational Safety and Health Act 1994 and Factories and Machinery Act 1967 have been identified as the key legislations governing OHS. These legislations prioritise active identification of hazards, employee engagement, and third-party scrutiny, rules that are contrary to China, and its traditionally centralised and

hierarchical style relating to safety management (Hassan et al., 2020). One of the main adaptation adjustments is to achieve the alignment between these participatory models and the site-level practices, which involves decentralised decision-making and empowerment of employees.

2.4. OHS Localisation Practices of Chinese Contractors Overseas

The study on the Chinese contractors working abroad reveals different directions regarding the localisation of OHS. Another study conducted by Hänle et al. (2017) on the safety procedures of Chinese firms in Africa showed that there was little cultural adaptation of safety-related procedures, with the majority of the companies doing nothing more than translating the Chinese safety manuals instead of redesigning them. Equally, Liu (2019) noted that this is the model applied by most Chinese companies, where they bring their local safety systems to their place of work without modification. Figure 4 shows the hierarchical relationship of occupational health and safety in China, including the relevant provisions of the constitution, laws, regulations, standards and treaties.

Figure 4: Framework chart of the legal system of OSH in Mainland China



Source: Chen et al. (2012)

Nonetheless, in recent research, the trend has moved onto more subtle methods. The study by Zhang and Hashim (2019) looked at an infrastructure project in Malaysia and reported that, at the beginning of the project, the Chinese contractor faced failures, but later, they started cooperating with the local officers in charge of safety and adapting their training processes to the local languages and traditions (Yap & Cheah, 2020). This change in lumping safety models to hybridised practices is an indication of the increased understanding of cultural flexibility.

2.5. Cultural Integration and Multinational Workforce Management

Different types of construction sites in Malaysia usually include Malaysian nationalities (Malay, Chinese, Indian) and other South Asia countries such as Indonesia, Bangladesh, and Nepal (Mohd Fateh et al., 2022). Such diversity heightens the chances of non-compliance and misunderstanding in terms of safety. According to Habibnezhad and Esmaeili (2016), the cultural background of the workers perceives risks, authority, and responsibility. An example is that employees of high-power distance cultures would be reluctant to report unsafe procedures and challenge managers.

Zhao et al. (2018) clarify that cultural alignment does not only come along with language since it pertains to building trust and mutual respect. Their case study of a Chinese-Malaysian mixed project team has shown that cultural misconceptions caused numerous incidents that occurred at the site at the beginning of their collaboration. Intercultural workshops and peer mentoring implemented over time contributed to the development of a common safety culture, which allowed for a decrease in the incident rate. This observation substantiates the belief expressed by Hofstede that intercultural synergy exists but has to be proactively maintained.

2.6. Safety Training and Communication in Multicultural Settings

Training is an important instrument of the dispensation of safety protocols, yet its usability is hinged on cultural-linguistic affinities. One of the main issues of Chinese companies operating overseas is the utilisation of materials written in Mandarin, which cannot be understood by the majority of the employees in the host country (Liu, 2019). In such a reaction, other companies have resorted to hiring bilingual instructors and using visual aids, including diagrams, videos, and simulation drills (Demirkesen & Arditi, 2015). Even culturally contextualised training has been effective, such as observation of religious times and use of local risk scenarios.

Channels of communication are crucial in this as well. China has a more hierarchical reporting structure, whereas in Malaysia, the regulations allow workers to meet requirements as well as provide feedback vertically. This disparity has been known to induce confusion and reporting delays in incidents unless firms rearrange their internal communications lines (Zhang et al., 2023). The problem has been partially solved by digitalisation. Multilingual mobile applications are already deployed on several projects where they are used to issue safety updates, capture incident reports and compliance tracking. The technologies, however, face their limitations in terms of digital literacy and accessibility to low-skilled labourers.

2.7. Dual-Track Systems and Hybrid Safety Models

A trend that is now starting to emerge in OHS localisation is the development of dual-track systems that retain key elements of the home country practice of a firm but revolve these around host country requirements. Though this is a good method of creating operational stability, it may cause an ambiguous situation regarding the roles. Liu et al. (2022) state that middle managers are usually put in a controversial position with two sets of directions: follow the company manual or obey the local policy.

This tension can be resolved with hybrid safety models that are well implemented. As an illustration, shared OHS governance councils with Chinese-local managers, regular,

third-party audits, and cross-worker appointment of safety of groups co-champions were effective in remedying safety violation protection in COVID (Wang et al., 2022). Such models can be stated as transitioning into adaptive and inclusive safety cultures, which should be viewed as out of compliance-based systems.

2.8. Gaps in the Literature

In spite of the ever-increasing amount of research that is being conducted on international OHS practice, there are a number of gaps. First, Malaysia, being a significant state in the BRI, hardly has a case-specific analysis regarding the research. The majority of the existing works concentrate on Africa, the Middle East, or generic multinationals. Second, there are a limited number of studies that employ qualitative thematic analysis that combines regulatory, cultural and managerial aspects. Third, the experiences of workers, especially low-skilled and migrant labour, are given a top-down interpretation of safety adaptation and a course of action. In addition, when discussing digital tools to ensure safety, more and more reference is made, but there are few studies that would confirm the effectiveness of such tools across cultures. Equally, in spite of the widespread use of the dual-track systems, there is no clear information on how best to go about the operations of such a model without creating confusion in the organisation.

According to the literature, to be successful in localising OHS in international construction, there is more than regulatory compliance and passing grades compliance. The study must integrate the cultures, situational training and redesigned communication channels. Particularly, Chinese contractors are moving beyond strict systems of safety to a hybrid approach that correlates much better to reality on the ground. The drive toward this change in Malaysia is coupled with powerful governance systems and a multicultural labour force. There is visible progress on this front, but more empirical studies are required to bring out the experiences of people in their work, assess the success of localisation provisions and create frameworks that enable adaptivity and culture-sensitive OHS practices. The proposed study is a part of that undertaking as it considers the Malaysian context, provides the ideas based on thematic analyses of current projects and peer-reviewed studies.

3. Methodology

This section describes the method of the research conducted to understand how construction enterprises of China adjust their Occupational Health and Safety (OHS) practices in Malaysia. It is a qualitative and interpretive study that involves a secondary analysis of data on cross-cultural safety management. It will be determined by the research onion model, and philosophical positioning, research approach, design, selection of data sources, processes of thematic analysis, and ethical aspects will be included in the methodology. The limitations are also talked about in this section, along with the steps that are to be taken to bring trustworthiness as well as quality assurance to the research findings.

3.1. Research Onion and philosophy

The proposed methodological framework is founded on the research onion presented by Saunders et al. (2023), helping to make a step-by-step decision regarding the creation of a research strategy to be in line with research objectives. As part of this study, the last

layer, that is, philosophy, has the interpretivist pattern since the socio-cultural reality of OHS adaptation in the global setting will be taken into account. The study methodology is inductive, and this will allow the production of themes from qualitative data. The research design is a mono-method qualitative, and the document analysis will be used. It has a cross-sectional time horizon, which is the period of publishing of materials between 2016 and 2025, and the main data analysis strategy is manual code thematic.

The research adopts the philosophical approach of an interpretivist research design since cross-cultural adaptation of OHS systems is localised and defined by human understanding and social practices, and interaction with institutions. The multinational workforce, as well as the complexities that deal with management structures of the regulatory system, are, on a high note, difficult to manage and hence require an interpretive lens to comprehend how the Chinese companies experience and react to the legal and cultural setup of Malaysia. Reflection of this philosophical stance about social constructivism places the prominence on co-creation of meaning in documents, narratives and discourse. The ontology is also relativist, which stems from the fact that the reality of safety differs within organisations, laws and countries.

3.2. Research approach and design

This research method assumes an inductive area of research, whereas the researcher intends to formulate some theories and practical bases on which the Chinese contractors localise OHS practices in Malaysia. The inductive method allows free exploration of the themes that arise out of qualitative data sources, unlike deductive methods that give pre-formulated hypotheses that would be tested. Safety in a construction environment, negotiations in a culture and compliance regulations are complex to allow an inductive approach to finding out the patterns of training, governance and communication, which are not supported by fixed theoretical models.

The study has a qualitative, non-empirical and exploratory design and is purely secondary. The design helps in the further exploration of the issues of human negotiation of the challenges of operating in the Malaysian OHS system by Chinese construction companies. The study does not use the methods of an interview and a survey. It examines the academic literature, the case studies, policy reports, and industry reviews to identify the current strategies and problems. The fact that the design can be cross-sectional permits the study to therefore synthesise wisdom that may be of relevance in the post-2016 world, and this would align with heightened activity of the Belt and Road Initiative (BRI) in Malaysia. This design is suitable when one wants to comprehend cultural dynamics and strategies of adaptation in a transnational construction context.

3.3. Data Sources and Selection Criteria

This research paper is based on the qualitative secondary information sources of peer-reviewed journals, institutional publications, policy documents and industry white papers. The most significant resources were ScienceDirect, Google Scholar, Springer, and Taylor & Francis. It also used the Malaysian Department of Occupational Safety and Health (DOSH), the construction industry development board (CIDB), the International Labour Organisation (ILO) and BRI-related infrastructure news as sources of report. The consulting firms, such as PwC and Deloitte, published white papers, which contained

practical insights related to cross-cultural project practices. These materials offer a basis to identify thematic analysis of OHS localisation approaches.

When documents were identified, inclusion and exclusion criteria were applied to make them relevant, of good quality and within the context. The inclusion criteria were: (1) peer-reviewed articles between the years 2016 and 2025 to represent the current trends; (2) an emphasis on OHS, cross-cultural management, or construction industry practices; (3) the relevance to the Chinese contractors working in the international environment (4) the full-text access with acceptance of the English language; and (5) the credibility of the source-based on peer-reviewed, the institutional, or the construction industry. There was exclusion of documents not related to construction, those without methodological transparency, or those that are strictly domestic (non-international) situations. The strength of this selection process was that it resulted in a balanced data collection that was rich in themes and could be used to explore the challenges and strategies of transnational OHS adaptation.

3.4. Data Analysis

In this research, the manual thematic analysis is used to break down patterns and understand qualitative secondary data. The readings commenced through a detailed reading of 23 selected records, such as journal articles, policy reports and case studies. Coding of key excerpts was carried out according to relevance to OHS localisation, alignment with regulations, integration of culture, training and the communication approach. These codes were further classified under larger themes, which are in line with the research objectives. Thematic analysis was selected due to its versatility and the ability to identify patterns that have contextual meaning, a conceptualisation that reveals how the Chinese contractors modify their OHS practices in the multicultural construction setting of Malaysia.

3.5. Ethical Considerations

It is not a study that includes humans or any human contact, such as an interview, and involves any confidential information of companies. It only depends on publicly available and open-source secondary materials. However, there was high academic integrity. Every source was referenced by the APA 7th style, and no manipulation or selective interpretation of the data took place. The research comprehends the view of subjectivity of his position in an interpretive paradigm and reduced bias by means of triangulation and maintained thematic criteria.

3.6. Limitations and summary of methodology

The study has yardsticks of the network since it only used secondary qualitative data. Although it can offer a wide net and access to divergent points of view, this method cannot be specific enough and show real-time information in the way that primary research can. There is also the fact that those case studies that are Malaysia-specific, involving Chinese contractors, are very few when compared to those in Africa and the Middle East. Also, the research has limits in that it is not generalisable to non-BRI and non-Asian nations. Also, the qualitative-only analytical method does not allow empirical validation of the analysis with statistical tools. Although these may be considered weaknesses, the research is methodologically sound in terms of sourcing and analysis practices.

In this section, the research design and methodology to be used in the study of OHS localisation by Chinese contractors in Malaysia have been expounded. The research, which is guided by the interpretive paradigm, follows an inductive qualitative style, and indications can be drawn upon secondary data analysed thematically. Although restricted by the lack of primary fieldwork, the research is organised, plausible, and ethically acceptable in terms of analysing the adaptation of safety practices across cultures and schemes of regulations regarding the international construction scenario.

4. Findings

4.1. Overview of Data

This research relies on 23 sources of secondary material, such as journal articles published in academic journals, government reports of Malaysia (CITP and OSHMP25), and Chinese regulations and guidelines. These sources formulated a detailed understanding of Occupational Health and Safety (OHS) practices, cultural adaptation issues, tools of digital safety, and governance applicable in the work of Chinese contractors in the Malaysian construction sector.

4.2. Coding and Thematic Analysis

The coding and thematic analysis has been detailed in Table 1.

Table 1: Coding and thematic Analysis

Author(s) and Year	Sector	Coding Categories	Key Themes Identified	Interpretive Notes
Dhelbi et al. (2018)	Construction (Malaysia)	Contractor practices, quality culture and adaptation criteria	Cultural adaptation in management and the need for formal quality systems	The study recommends competence in a culture development structure as a driver of performance, which would imply similarities with OHS adaptation in binding an organisation together.
Haslinda et al. (2016)	Construction (MRT Project Malaysia)	Communication, safety training, and company policy.	Training and communication play a major role towards the prevention of accidents.	The results affirm the importance of commitment to training and enforcement of policies to effective OHS, which supports the argument presented that culturally sensitive communication techniques are essential.
Ismail and Othman (2021)	Construction (Malaysia)	Regulation compliance and causes of accidents.	Human error and the gap between	Even though there are robust legal platforms, accidents still happen

			policy and implementation.	because of inadequate enforcement and awareness, so regulatory localisation is a difficult exercise on the part of foreign firms.
Kee and Yahya (2016)	Construction (Peninsular Malaysia)	Incentives, organisational culture, safety management	Need for cultural shift and inadequate safety attitudes	Research highlights that, in addition to the legalities, behavioural change and organisational culture play a crucial role in the improvement of safety in the workplace.
Lei et al. (2018)	Chinese international construction projects	Performance gaps, perception variation and communication	Project context matters, and OHS perception differs by role	Lays emphasis on perceptual differences in OHS roles and emphasises the necessity of inter-organisational communication in cross-cultural teams.
Li et al. (2017)	Chinese overseas oil refining	Uncertainty, HSE and risk assessment	HSE risks require well-organised approaches to evaluate them.	It may seem that the insights on risk and governing processes implied in the oil sector are not relevant to the systematic OHS localisation frameworks, but this is a misimpression.
Lin (2024)	Chinese international construction (BRI)	Dual regulatory systems, CSR and OHSW	Hybrid motivations behind OHS practices	The legitimisation and competitiveness objectives both influence CSR and OHS strategies in Chinese businesses, and localisation is a selective strategic process.
Misnan et al. (2024)	Construction (Malaysia)	Enforcement, accident reporting and safety compliance.	Weak accident reporting affects risk management.	The paper highlights failure in the process of reporting and its detriments on the safety culture, which is critical to be addressed by international contractors.
Razali et al. (2020)	Construction (Malaysia)	Stakeholder collaboration, safety culture, and OHS master plan	Need for national-level cultural change.	Upholds the belief that cross-sector alignment and coordination amongst the stakeholders are

Smyth et al. (2019)	International construction (UK/HK-based)	Wellbeing, international standardisation and local adaptation	Tensions between standardisation and localisation	essential in establishing long-term changes in safety. Exhibits how the international contractors have to manage corporate safety templates against the flexibility of context in the host nations.
Tan et al. (2023)	Construction Safety Management (Malaysia)	Regulatory adherence, safety commitment, and compliance behaviour	Top-down influence on safety behaviour	Organisational leadership plays a great role in compliance; where the management has a strong commitment, the effect is witnessed in the on-site compliance department.
Tiong and Cheng (2017)	Cross-border Construction (Singapore-Malaysia)	Stakeholder management, cross-cultural communication and trust	Cross-border Construction (Singapore-Malaysia)	Cultural adaptation of OHS is dependent on the process of aligning different cultural norms and building mutual trust on both sides of national borders.
Ullah et al. (2019)	Construction Projects (Pakistan-China)	Foreign-local collaboration, Localisation, and risk governance.	Integration of local partners improves OHS compliance.	The implementation risk can be reduced by a cross-cultural joint venture whereby local stakeholders are made part of the governance structures.
Wena et al. (2017)	BRI Construction Projects	CSR implementation, stakeholder interest, and regulatory gaps.	Inconsistent CSR and regulatory alignment.	The variations between the regulations in the host country and the home country corporate structures necessitate adaptive CSR approaches, such as in OHS.
Xie et al. (2020)	Overseas Engineering Projects (China)	Cultural conflict, OHS perception, and legal systems	Legal and cultural misalignment hampers implementation.	The Chinese contractors are finding it difficult to cope with the foreign OHS regulations, and they have to improve training internally to fill the gaps in the policies.
Xu et al. (2025)	Multinational Construction	Compliance frameworks,	Institutional pressure	To garner contracts, firms are inclined to

		institutional theory, and isomorphism.	shapes OHS compliance.	match local norms. When it is under pressure, the institutional settings influence the behaviours of contractor OHS.
Xue et al. (2019)	Chinese Overseas Projects (General)	Health and safety practices, political risk, and cultural adjustment.	Cultural intelligence is critical for safety success.	Contractors with more developed cultural awareness and involvement respond better to those of a host country on safety.
Yusoff et al. (2024)	Malaysian Construction Projects	Contractor performance, safety leadership and monitoring systems.	Monitoring and leadership drive compliance.	There must be forceful safety auditing and demonstration of leadership to ensure accountability of the contractors.
Zhang et al. (2020)	International Construction Projects	CSP Implementation Factors (ASMM, OM, SKMS, STS)	Role of Knowledge Systems and Effectiveness of CSP	The informative management systems and the working mechanism in CSP are huge determinants of the success. Less effective were training and attitudes.
Zhao et al. (2016)	Construction Contractors (CSR in China)	CSR Indicators and Stakeholder Perceptions	Stakeholder Importance and CSR Priority Variation	The health, safety, and partner relationships CSR issues are among the top ones but vary in stakeholders, which would indicate the necessity of a tailored CSR approach.
CIDB Malaysia (2021)	Construction (Malaysia)	Barriers and enablers, BIM awareness and adoption rate	Policy incentives, digital transformation and industry readiness	BIM awareness reached 74%, even though its historical adoption is low (19%), and adoption reached 49%. This is a result of CIP policy and excellent stakeholder involvement.
NCOSH Malaysia (2022)	Construction and Manufacturing	OSH Performance Indicators and Implementation Targets	Performance metrics, OSH strategic planning and governmental oversight	OSHMP25 presents calculable measures to eliminate incidents at the workplace and targets tripartite action and an enhanced culture of compliance.
Statistical Bulletin of FDI in China	General Economy/Construction	Safety stats, employment, and output	Labour Trends, Accident	The Statistical Bulletin shows an increasing employment figure

(2023)	Reports, Economic Contributions	but also indicates the persistence of accidents, which justifies the use of robust OSH frameworks.
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4.3. Thematic Presentation of Findings

This section is a synthesis of the prioritised patterns that were identified following the peer-reviewed journal articles and official reports coding and thematic analysis. The information was obtained mainly through varied sources, such as the Chinese contractors, Malaysian government policy, international safety guidelines and cross-cultural construction literature. It was found that five major themes explain sources of understanding of issues surrounding Occupational Health and Safety (OHS) localisation practices as conducted by Chinese contractors in Malaysia and other countries that may be regarded as its neighbouring host countries.

4.3.1. Theme 1: Evolving Role of Governance and Strategic Policy Alignment

The major theme that can be identified based on the secondary data is the influence of strategic governance and policy frameworks on the outcomes of OHS localisation. The national version can be seen in reports that are about the issue, including the OSHMP25 (2022), the CITP (2020) and the BIM report by the CIDB (2019), to name a few, wherein Malaysia is committed to transitioning to a more structured safety platform, including using digitisation, regulation, and coordination of the stakeholders. As an example, the Construction Industry Transformation Programme (CITP) increased productivity by 60 per cent through BIM and IBS adoption and the timely implementation of safety requirements in every stage of the project delivery. Both national and local law elements placed in the State Council PRC Guidelines (2021) encourage Chinese contractors to comply not only with the law, but also with a greater vision of governance on the international stage that can improve the image of China. It is not that localisation of OHS practices is a pure compliance issue, but an opportunity to create legitimacy, guarantee risk reduction and realise long-term performance improvements.

4.3.2. Theme 2: Cross-Cultural Competence and Communication Barriers

These scholarly articles (Tiong et al., 2014; Xue, 2020; Xie et al., 2023) emphasise that OHS policies are being localised successfully to the relative degree that cultural intelligence and communication capacity are established. Issues that normally prevail within an information flow on-site are related to differences in language, communication styles, safety values, as well as the views on authority. Specifically, the hierarchical, centralised safety orientations that are utilised by Chinese companies tend to fail in meeting the multicultural, participatory working environment of Malaysia. Contractors that are responsive to adjusting their communication plans through multilingual training, a visually depicted safety manual, and culturally competent onboarding modules have a higher chance of securing a safe, non-oppressive work environment. This theme highlights the fact that OHS must be socially and culturally contextualised, besides being technically robust.

4.3.3. Theme 3: Institutional Pressures and Performance Metrics

The views of the institutional theory, which are echoed in the studies by Xu et al. (2022) and the reports of CIDB and DOSM, explain why OHS conformity is motivated by external institutional pressures. These pressures are either by government regulators, trade unions or clients, thereby creating an atmosphere where contractors develop with host-country expectations to maintain access to the market. OSHMP25 contains the workplace safety and health institute key metrics, which formalise performance expectations, such as incident rate reduction and training targets. Furthermore, statistical data presented in the DOSM (2022) bulletin gives a reality check, accidents in the workplace are persistent, especially in the construction industry. This demonstrates that despite the transformation of the policy environment, there are still gaps where policy is not being implemented in practice, especially among the foreign contractors who might find it difficult to adapt to the law and its institutions.

4.3.4. Theme 4: Variability in CSR and OHS Implementation

The results provided by Zhao et al. (2016), Wena et al. (2020), and the Guidelines for Chinese Enterprises Operating Overseas (2021) indicate a lack of a line of action in implementing CSR and OHS approaches. Although safety and ethics are frequently referred to in corporate policy, they are only operationalised in a limited sense between projects and firms. Reasons that contribute to this variance are the cost pressure, the subcontracting operations, the loopholes in the regulations and the priorities among the leaders. Such inconsistency creates a lack of trust in the local stakeholders and hinders the attempts to acquire a homogenous, accountable image of a Chinese contractor presence overseas. To overcome this inconsistency, reports demand institutionalisation of standardised OHS audits, benchmarks on worker welfare and rating systems on contractors.

4.3.5. Theme 5: Knowledge Management and Digital Enablement

A positive tendency can be seen in both peer-reviewed research (e.g. Zhang et al., 2020) and CIDB reports as far as the significance of knowledge systems and digital tools to assist OHS transformation is on the rise. In another example, BIM systems are also used in safety planning, monitoring and risk assessment in addition to design. The focus on automation and articulated transfer of knowledge on the part of CITP indicates the shift towards greater reliance upon data-based safety measures in the industry. It is therefore through knowledge management processes which incorporate cloud-based training applications, on-the-spot incident reports and mobile communication systems that counter the localisation problem by standardising information among cultures and provinces. The results indicate that the Chinese contractors, who invest in such systems, have a good chance of delivering to the changing safety expectations in Malaysia.

5. Conclusion and Recommendations

The research paper was a study on the cross-cultural adaptation of Occupational Health and Safety (OHS) management practices by Chinese contractors working in the Malaysian construction industry. In an article with a subscribing theme of peer-reviewed papers, institutional direction, and government articles, the research has established some critical areas in terms of the way these companies manoeuvre through local regimes, labour requirements, and cultural settings.

It can be seen that generally, the Chinese contractors are rich in the detail of their internal safety protocols, but the efficacy of those protocols is based heavily on their capability to localise those measures. Malaysia has a very strong regulatory framework of government through governance structure such as the Construction Industry Transformation Programme (CITP) and OSH Master Plan 2025, which promotes accountability, performance tracking and application of technology. Nevertheless, the Chinese companies are not even-handed in their achievements regarding the implementation of OHS regulations, which in many cases can be explained by cultural incompatibility, communication hindrance, and harsh adherence to corporate social responsibility (CSR).

The study has also identified a trend towards the digitalisation and performance-based OHS system. Safety and best practice aligning tools, such as Building Information Modelling (BIM) and more structured knowledge management systems, present a novel set of avenues to enhance the safety outcome and align with the local best practices. Nonetheless, such developments cannot flourish without the commitment of leading authorities, the interest of other stakeholders, and cultural competence. Finally, the paper highlights that localising OHS is not only a legal requirement, but also a strategic imperative to the Chinese contractors who want to gain legitimacy, efficiency and sustainable business in a host country such as Malaysia. There should be comprehensive safety management practices, and this strategy entails policy compliance, cultural adaptation, and technological empowerment as the main pillars of success.

Following are the recommendations:

- i. **Develop Localised OHS Frameworks:** The Chinese contractors ought to collaborate in the development of safety procedures with the local stakeholders to make them relevant, culturally considerate, and operationally viable.
- ii. **Invest in Cross-Cultural Training:** Intercultural communication, local laws, and workforce engagement strategies should be industry training that project teams, especially safety officers and site managers, are required to go through.
- iii. **Standardise Safety Audits Across Projects:** To mitigate the effect of variability during OHS implementation, the companies should institutionalise the uniform procedures of audit and compare them between the Chinese and Malaysian standards.
- iv. **Leverage Digital Tools:** The companies should embrace and customise the application of digital technologies, including BIM and OHS mobile apps, to create a culture of hazard sensing, sharing, and active arising.
- v. **Foster Stakeholder Partnerships:** This can be improved by building work relations with the local regulatory bodies, subcontractors, and NGOs and providing a more effective compliance, transparency, and acceptance by the local communities.

Ethics Approval and Consent to Participate

The researchers used the research ethics provided by the Research Ethics Committee of Universiti Putra Malaysia. All procedures performed in this study involving human participants were conducted in accordance with the ethical standards of the institutional

research committee. Informed consent was obtained from all participants according to the Declaration of Helsinki.

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Conflict of Interest

The authors reported no conflicts of interest for this work and declare that there is no potential conflict of interest with respect to the research, authorship, or publication of this article.

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