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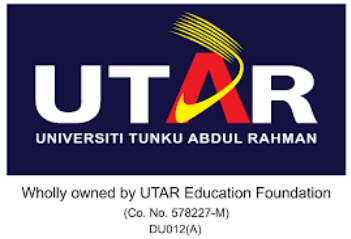

Analysis of the Causes of Accidents on Construction Sites in Malaysia: Case Studies of High-rise Buildings

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Introduction & Background

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Aim, Objectives, and Scope

Problem Statement:

High-rise construction in Malaysia continues to experience frequent site accidents despite regulatory and administrative controls.

Aim:

To investigate the systemic causes of accidents in high-rise building projects and identify strategies for prevention.

Research Questions:

- What are the main causes of accidents on high-rise construction sites?
- How can these be minimized through behavioural and management strategies?

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Research Design and Methodology

Research Methodology

- **Approach**: Qualitative
- **Method:** Structured interview–survey
- **Participants:** 5 respondents (Safety & Health Officers, Site Supervisors, Environmental Managers)
- **Sampling:** Convenient, focusing on **G7 contractors** in Kuala Lumpur
- **Analysis:** Descriptive and synchronization with literature

Respondent Profile

Name	Position	Working Experience	Project	Location
Withheld (A)	Safety and Health Officer	7 Years	BBCC	Bukit Bintang, Kuala Lumpur
Withheld (B)	Safety and Health Officer	8 Years	3 Blocks 42 Storey Service Apartment	Old Klang Road, Kuala Lumpur
Withheld (C)	Safety and Health Environmental Manager	5 Years	Project of Upgrading Hang Tuah Monorail Station	Bukit Bintang, Kuala Lumpur
Withheld (D)	Safety and Health Environmental Manager	45 years	Project of Upgrading Hang Tuah Monorail Station	Bukit Bintang, Kuala Lumpur
Withheld (D)	Site Safety Supervisor	3 Years	Greentech	Kuala Lumpur

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Results

Main Causes of Accidents

Top Causes Identified:

1. Lack of training
2. Poor supervision
3. Low safety awareness
4. Ineffective communication
5. Improper PPE use
6. Human error & complacency

Example incidents:

- Worker's hand cut by machine due to poor communication.
- Supervisor fell from height due to negligence.
- Worker fell through weak plywood platform after rain.

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Discussions, Conclusions & Recommendations

Discussion

- Most accidents are behavioural and management-related, not purely technical.
- **Poor communication** between foreign workers and supervisors increases risk.
- **Insufficient training and monitoring** persist despite regulations.
- **PPE issues**: Lack, discomfort, or improper usage.
- Need for a **human-centered safety culture** focusing on daily worker behaviour and attitude.

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Discussions, Conclusions & Recommendations

Lessons Learned & Recommendations

- Shift from **administrative** to **behaviour-based safety** approaches.

1. Foster a safety culture through:
2. Regular training and supervision
3. Continuous communication
4. Incentives for safe practices
5. Adequate PPE and proper monitoring

- Link **productivity with safety** – healthy workers are productive workers.

Conclusion & Limitations

- Construction accidents in Malaysia remain **a serious and recurring issue**, especially in high-rise projects.
- **Human error, poor training, and weak communication** are key causes.
- Behaviour-based strategies can substantially reduce accidents.
- **Limitation**: Small sample (5 respondents) – further studies needed for broader generalization.

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