



OPENCOURSEWARE


CONSTRUCTION SAFETY: 14

DEVELOPING SAFETY CULTURE IN CONSTRUCTION INDUSTRY

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Introduction and Background

- The **construction industry is unique** among other industries as the activities of construction often take place in the outdoor under conditions not conducive for safety and health. Workers in the construction sites have to face constant change in the **nature of work**, the location of work and the mix of workers.
- Most of the people tend to relate construction industry by dangerous working environment and high risk as compared to others. **The reputation of construction industry** is relying on the expertise of implementation and management of safety and also how it can be completed safely and meet the consumer's requirements (Mills, 2001; Loosemore *et al.* 2003; Root, 2005; Goetsch, 2005).

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Accident, Safety and Culture

- Nowadays, **quality and safety** are two main issues in construction industry. ISO 9000 has been promoted in construction industry to ensure the quality of construction work done by a contractor.
- Apart from quality, **a safe working environment is very necessary** to put aside the current industry pictures of high risks in construction works. Construction safety is a standard of quality that is indicated in the contract and required by the client (Alves Dias and Coble, 1996).



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Accident, Safety and Culture

- Revolution and changes in **safety system management** has become as a mandate in practicing safety action that can be managed interminable (Low and Sua, 2000).
- The **worldwide construction industry is still practicing work process by labour intensive** where based on wet trades. This factor contributes to the low quality of work due to the workers are lack of expertise and training and also exposed to the accident easily (CIDB, 2004).



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ANGGOTA bomba mengeluarkan mayat daripada saluran paip pembetungan di Taman Jati, Jeram, Kuala Selangor, kelmarin. – Gambar oleh Abdullah Mahson

Dua mati tertimbus ketika kerja pembetungan

KUALA SELANGOR, Ahad – Dua lelaki mati tertimbus ketika melakukan kerja pembetungan di Baris 5-1/2, Taman Jati, Jeram di sini, petang semalam.

Tee Kok Wah, 46, dari Pasir Pemang-
 pang di sini, dan seorang warga Indo-

nesia, Jaman Jojok, 45, tertimbus apabila tanah yang digali runtuh menimpa mereka ketika melakukan kerja itu bersempadan pekerjaan kira-kira jam 4.30 petang.

Ketua Polis Daerah, Superintendan Mohd Azhar Nazri, berkata Tee dan

Jaman mati di tempat kejadian dan mayat mereka dibawa ke Hospital Danding Karang untuk berahimisan. Helian berkata, mereka meninggal kecederaan teruk di kepala dan post-
 tidak mengesyaki sebarang suspek mayat.

The concept of culture

- The concept of **culture** was first known to represent, in a very broad and holistic sense, the qualities of any specific human group that are passed from one generation to the next.
- This includes **religion, way of life, values and beliefs of people**. This is known 'social culture'. People born in a particular culture are expected to believe and behave differently to others (Naoum, 2001)

Issue And Problem in Safety Culture

- Jones (1997) stated that safety is part of important aspects which should be given an attention and guidance to improve the stated safety management to **stronger safety culture**. Some can be used like the method to improve safety management, plant and equipment, and workers involvement. Safety culture in construction community can be very low.
- Looking at that weakness in these characteristic and human attitudes, it can be concluded that to protect from accidents need changing of paradigm in the **characteristic and human attitudes**. Previous reactive and bad attitudes be a norm, should be changed to positive and **proactive culture** (Mohd Saidin *et al.* 2006b).

Current Situation

- Most construction companies have robust and third party accredited OHS management systems in place
- Incidents often occur because the system was not:
 - Followed;
 - Implemented, and/or
 - Didn't address the situation which resulted in the incident
- Safety culture differentiates safe from unsafe construction sites
- **Company leaders and line management** determine the culture

Safety and Organizational Culture

- Culture is defined as those **practices common** to a group of people. In this context, safety can be expressed in simple direct terms as behavior affected by culture. Note that this topic encompasses both **management behavior** (action or inaction) and employee behavior (Eckhardt, 1996).
- Culture is further defined as **missions interacting** with work processes and corporate values to generate behavior (McSween, 2003). How a company's mission is understood, followed by expectations and processes, determines behavior.

Conceptual framework of safety culture development

- The development of safety culture based on the framework views the overall individual to group responsibility that develops the total value of safety culture which support the **organisational culture**.
- Everyone must play part in the organisational culture to ensure correct understanding of the importance of safety and changing the attitude and behaviour through the intrinsic and extrinsic element of the culture (Mohd Saidin *et al*, 2011a).

Conceptual framework of safety culture development

- Organisational culture will be transmitted to all organisation activities which involve intrinsic and extrinsic elements of the organisation. This will in turn be transmitted to every member in the organisation. All intrinsic and extrinsic elements of culture will affect the organisation culture throughout the development of safety culture.
- Consequently, it makes the concept of safety culture more acceptable with expected wider attention. It does not mean that the safety system nowadays is not relevant for practices, but this system will function well when the organization has developed safety culture. The reason can be seen from different aspects: the existence of barrier in safety system which may be less if the organization can develop strong safety culture.

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Conceptual framework of safety culture development

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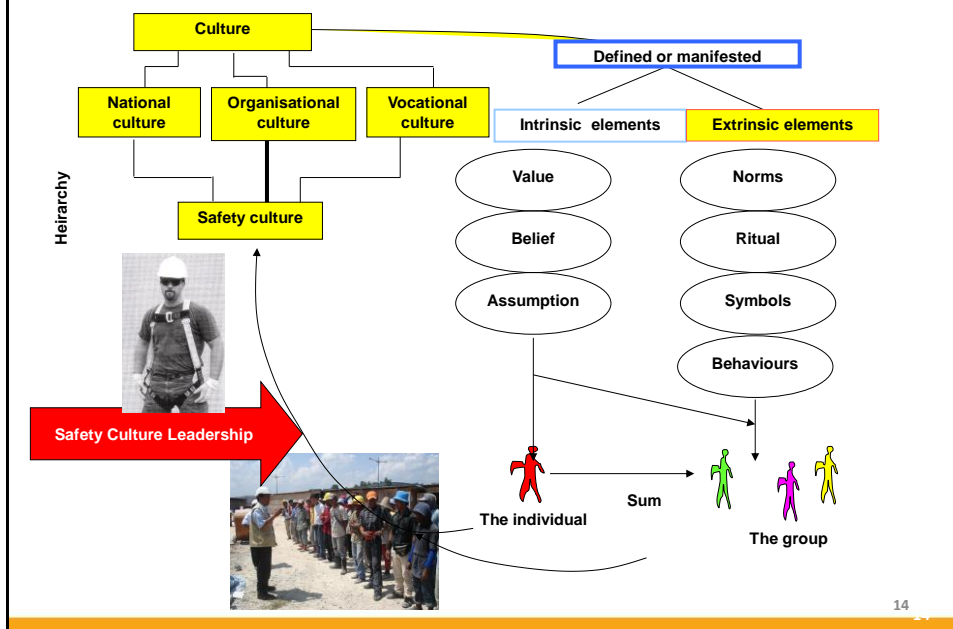
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Conceptual framework of safety culture development


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Figure 1.0: Development of Safety Culture Leadership in Construction Industry



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Summary of Reaserch Methodology

Level	Methodology	Respondents	Nos of Resposns
Initial Survey Kajian Awalan	Questionnaire Soal selidik	Construction Firms G7 Firma Pembinaan G7	121/300 (40.3%)
Level 1-4 Tahap 1-4	Questionnaire Soal selidik	Construction Firms G7 Firma Pembinaan G7	287/1000 (28.7%)
Level 2 Tahap 2	Interview Temu bual	Safety and Health Expert Pakar Keselamatan & Kesihatan pekerjaan	15
Level 4 Tahap 4	Questionnaire Soal selidik	Safety and Health Officer (SHO)	107/300 (35.7%)
	Interview Benchmarking) Temu bual (Penandaarasan)	Construction Firms G7 Firma Pembinaan G7	3
	Validation of Model Pengesahan Model-Soal selidik	Construction Firms G7 Firma Pembinaan G7	30/200 (15.0%) (26/27 Rakan penandaarasan) benchmarking
	Focus Group	SHO/HSConsultant	7

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Table 1: Background of the Respondents of the G7 Class Construction Firms

Nos.	Respondence	Frequencies	Percentage
1.	General Manager	7	2.4
2.	Managing Director	28	9.8
3.	Safety and Health Manager	80	27.9
4.	Safety and Health Officer	105	36.6
5.	Project Engineer	13	4.5
6.	Project Manager	39	13.6
7.	Construction Manager	14	4.9
8.	Facilities Manager	1	0.3
	Total	287	100

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Table 2: Findings on the factors involved in the development of safety culture

Nos.	Factors	Grade G7 Construction Firms		Safety and Health Expert	
		Scores	Rank	Scores	Rank
1	Leadership	1,226	1	147	1
2	Involvement	870	3	116	3
3	Recognition system and acknowledgement	603	8	84	5
4	Training	896	2	135	2
5	Communication	629	7	83	6
6	Motivation	635	6	43	10
7	Teamwork	393	10	72	7
8	Health and Safety Committee	673	5	63	8
9	Policy and safety planning	689	4	92	4
10	Work environment	480	9	56	9

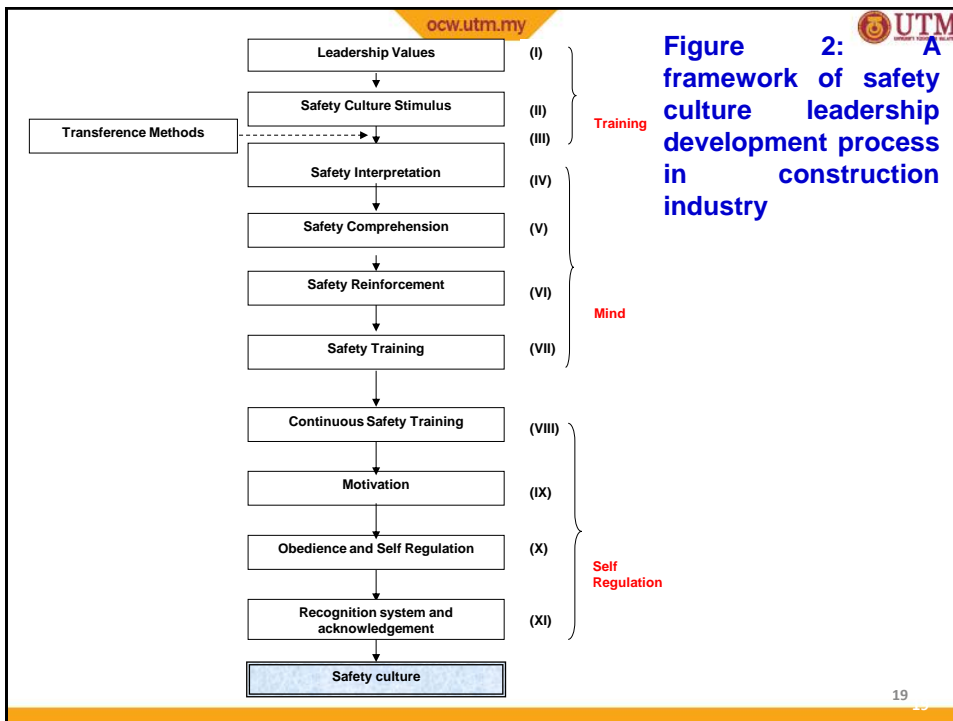
Source: Survey Questionnaire, 287 respondents.

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Development of Safety Culture Leadership in the Construction Industry

- Effective safety management is both functional (involving management control, monitoring, executive and communication subsystems) and human (involving **leadership**, political and safety culture sub-systems paramount to safety culture).
- **Leadership** is an essential part of the process of management and it is also an integral part of the social structure and culture of the organization.
- If the manager is to be successful in dealing with people and influencing their behaviour and actions, it requires a **leadership style** which helps to foster a supportive organizational culture - a type of leadership that goes beyond profitability.

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Development of Safety Culture Leadership in the Construction Industry

- A holistic approach that is required to change safety culture, involving: sustained **management commitment**; sound safety policy; visible management support; allocation of sufficient resources; use of appropriate safety management techniques; continuous motivation of all staff; safety training provision; fostering a 'no blame culture'; organisational learning; and persistence of purposes.
- Safety is everyone's responsibility. However, at the construction job site, the **frontline manager** is responsible for ensuring that the company's safety programme is set in motion.

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Development of Safety Culture Leadership in the Construction Industry

- Efforts in encouraging safety practices should come from the **management** who should conduct safety promotion, accreditation of status, reward system, distribution of safety information and communication.
- **Commitment** from the management can be seen from the continuity of consistency in safety management practices and encouragement of safety proposals from all parties in the organization (Cox & Flin, 1998).

Development of Safety Culture Leadership in the Construction Industry

- Commitment from the management in safety and health can appear from **financial budget, scheduling, practices, relationship with others and construction quality and that can be part of the successful organization.** (Roughton and Mercurio, 2002; Stewart, 2002; Forck, 2006).

Summary

- Leadership is about taking action to influence the behaviour of other members of an organization. This involves articulating a vision for the organization and then inspiring organizational members to behave in ways to support the achievement of this vision.
- This is not the same thing as management, which deals more with the process of developing plans and goals and implementing them. Some people are good managers but not good leaders, and vice versa.
- While effective managers are skilled in the execution of plans, effective leaders must be able to find ways to "paint a picture" of a desired goal and to persuade other members of the organization to work together to realize this goal.



References

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THANK YOU

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