

Leadership Assessment Tools that can be used in Managing Health and Safety in the Apparel Manufacturing Industry in Sri Lanka

Ekanayake B.J., Karunathilaka S.K.
University of Moratuwa, Moratuwa, Western Province, Sri Lanka
ra-biyanka@uom.lk, susilkumarakarunathilaka@gmail.com

Perera B.A.K.S
University of Moratuwa, Moratuwa, Western Province, Sri Lanka
pererabaks@gmail.com

Abstract

Developed countries have put forward specifications for assessing the commitment of their leaders to health and safety management. Other countries including Sri Lanka, unfortunately, have so far not been able to follow suit. Apparel manufacturing industry is a key industry in Sri Lanka, which demands a proper leadership assessment method to ensure better safety management in the industry. Therefore, this research was aimed to identify a leadership assessment tool to assess leadership commitment to health and safety management in the apparel manufacturing industry in Sri Lanka. Ten semi-structured interviews were conducted as a preliminary study among health and safety management experts in the apparel industry. Subsequently, a questionnaire survey conducted among seventy health and safety management professionals. The data collected were analyzed using content and statistical data analysis to develop a leadership assessment tool. Research findings revealed that the score rating assessment method will ensure quality and transparency in the work done by leaders which in turn will result in good health and safety performance. The research recommends the use of score rating to assess the commitment of leadership to health and safety management in the apparel manufacturing sector in Sri Lanka.

Keywords

Leadership Assessment Tool, Apparel Industry, Health And Safety Management, Sri Lanka

1. Introduction

Management and leadership have to be integrated to deliver proper health and safety services in a workplace and it may involve different types of outlooks, skills, and behaviours (Gary, 2003). The total cost of workplace accidents and ill health accounts to approximately 4% of the world's gross domestic product, and cultural aspects are found to cause most of the issues that arise in health and safety management (Fernando, 1997). Each processing stage of a production facility from the production of materials to the building, finishing, colouring and packaging of the final product poses risks for workers (Vanderzee, 2007). Moreover, according to Zubar (2014), if leaders can show their workers that they are serious about health and safety, the workers are more likely to follow the leaders (Australian Government Statutory Agency [AGSA], 2011). According to Dheerasinghe (2008), effective occupational health management practices, awareness programs and a good safety culture among the workforce can prevent many deaths and diseases. The author has further highlighted issues such as lack of safety systems, management commitment, employee involvement, effective assessments and organizational responsibility

as causing these deaths and diseases. Shortcomings in the occupational safety and health coverage of workers has become a key concern as only about 30% of the labour force is presently covered by the main statutory provisions on occupational safety and health (International Labour Organisation [ILO], 2017).

Green concepts are vital to the apparel manufacturing industry to ensure its sustainability, proper health and safety practices by its workers, mitigation of greenhouse gas emissions and biodiversity (Central Institute for Labour Protection [CILP], 2008). About 4,000 accidents occur annually in the apparel industry in Sri Lanka (ILO, 2017). Effective risk management in the apparel sector highly depends on the commitment to health and safety displayed by those who operate and manage the business (Dheerasinghe, 2008). Occupational safety and health in the apparel manufacturing sector will safeguard its most valuable and indispensable human asset (Kelegama and Frikz, 1999). Because of lack of health and safety assessments, there are many occupational, environmental and organizational issues in the apparel sector. Industry assessments are mostly to fulfill internal and external health and safety audit requirements. Only a proper leadership assessment system will be able to identify these issues. Hence, health and safety management assessment using a suitable leadership assessment tool has become necessary for proper health and safety management in the apparel industry in the country. This study therefore focussed on identifying a leadership assessment tool suitable for health and safety management in the apparel manufacturing industry in Sri Lanka.

2. Literature Review

2.1 Health and Safety Practices in the Apparel Sector

According to the Central Bank of Sri Lanka Annual Report (2013), and the Department of Census and Statistics of Sri Lanka (2014), 58% of the total industrial export earnings and 52% of the industrial sector labour force in the country come from the textile and apparel industry. Hence apparel manufacturers in Sri Lanka are certainly interested in minimising environmental and occupational safety issues that arise as a result of the apparel manufacturing processes (Wijendra, 2013). According to Embuldeniya (2015), health and safety indicators include communication or awareness of health and safety practices measured in terms of employee satisfaction expressed through messages they communicate on health and safety. The author has further stated that designing safety equipment, protective devices and clothing, maintaining records and statistics to identify problem areas and unsatisfactory trends and carrying out regular risk assessment audits, inspections and checks and taking action to eliminate the identified risks as some of the safety practices found in the apparel industry. Nawan and Shafi (2011) have stated that working conditions, layout and location, ventilation, space for movement, temperature, lighting, arrangement of tools and equipment affect employee productivity. They have further found training programs that educate employees on proper safety procedures, continuous programs on working habits and methods that will avoid accidents, employer commitment and identifying and implementing comprehensive changes in a consultative manner as practices currently followed in the apparel industry in relation to health and safety.

2.2 Leadership and Management Commitment towards Health and Safety

Leadership and management commitment to health and safety is recognized as a fundamental component of an organization's occupational health and safety agenda (Integrated Management System [IMS], 2017). Clear lines of authority, understanding of safety statements, trust and engagement, safety information and communication all of which play a crucial role in any organization are the key enablers of leadership assessment (Degreef, 2004). Consultative style, role models, safety accountability, and safety feedback also enable health and safety assessments (Champoux, 2001). Furthermore, proper safety performance and high productivity are linked to consultative management style that can develop a positive safety culture (Bjurstrom, 2009). A safety program alone cannot be successful unless the responsibility of accomplishing safety activities is transferred from the top management to the lower levels of authority

(Kirsten, 2010). According to Goetzel (2008), policy and strategy, people, partnerships and resources and processes are the key enablers of health and safety leadership development. The elements of leadership and management commitment towards health and safety are given below (Bass, 1994; Firth-Cozens, 2001; Yukl, 2002; Zohar, 2003; Hofmann, 2004 and Flin, 2013):

- Policy
- Organizing
- Planning
- Measuring performance
- Auditing and reviewing performance
- Co-operation
- Training on health and safety

These elements have been developed over a period of time and customized according to the context.

2.3 Leadership Assessment Tools Available in the Industry

A sound business enterprise must check its safety practices as carefully as it checks its accounting records (Chair, 1999). According to Wang (1995), debts taken in situations, where there are losses or injuries should balance the credits that accrue from the adequacy of the safeguards adopted to prevent those losses and injuries. Health and safety audits are not just inspections but are evaluations of all aspects of a program with particular emphasis placed on the quality as well as the quantity of safety and health activities of every level (Gupta, 2010). Chair (1999) stated that the fundamental goal of a health and safety audit is to verify that health and safety activities comply with institutional policies and federal, state and local regulations and to inspect those practices. Health and safety assessment is defined as a monitoring function of an organization performed to locate and report existing and potential hazards that could cause accidents in the workplace (Howard, 2002). Document analysis, workplace observations and interviews are considered as safety culture assessment tools (Henry, 2005). Leadership assessment inventories (William, 2011) and leadership assessment questionnaires (Henry and Ramsey, 1999) are considered as the evaluation criteria of safety leadership.

3. Research Methodology

Mixed method has less flaws and problems than any of the mono methods (Tashakkori and Teddlie 1998). It enriches the validity and reliability of the results of a study and the comprehension of the studied phenomenon, while enabling new dimensions to emerge (Teddlie and Tashakkori 2003). This research therefore used the mixed method. It began with a comprehensive literature synthesis. Data collection for the study was conducted in two phases, a preliminary survey with semi structured interviews followed by a questionnaire survey. The preliminary survey was carried out among ten health and safety management personnel working in apparel manufacturing factories. All of the participants, three senior safety executives, five safety officers and two safety and risk management executives, were entrepreneurs each with more than 10 years of experience in health and safety management. To refine the literature findings, the data collected were analysed using content analysis. The questionnaire that was subsequently developed was distributed among 100 health and safety officers, executives, and departmental heads of several organisations operating in Sri Lanka. Seventy out of the 100 questionnaires distributed could be collected giving a response rate of 70% for the questionnaire survey. Thirty from large scale organisations and 20 each from medium scale and small scale organizations participated in the questionnaire survey. All of the respondents had more than 5 years of work experience. Table 1 presents the profiles of the respondents.

Table 1: Profile of the respondents of the preliminary survey

Type of organization (Apparel)	Designation	Total number of participants
Large scale	Safety Manager	5
	Senior Safety Executive	4
	Health and Safety Compliance Executive	6
	Safety Officer	15
Medium scale	Health and Safety Director	3
	Safety Compliance Senior Executive	7
	Environmental, Health and Safety Officer	10
Small scale	Safety and Compliance Executive	12
	Executive- Safety and Risk Management	8

Quantitative analysis was carried out using relative importance index (RII), which was calculated as given below.

$$RII = \frac{\sum w}{A * N}$$

RII= Relative Importance Index; w= Weighting given to each factor by the respondents, A= Highest weight and N= Total number of respondents.

Participants were requested to indicate their responses on a five point Likert scale so that their responses could be analysed using statistical tools.

4. Research Findings

The research was done in two stages. Firstly, significant health and safety systems used in the apparel industry were identified. Secondly, leadership assessment tools were integrated with health and safety management systems that were identified from the questionnaire survey.

4.1 Identification of Health and Safety Systems used in the Apparel Industry

Many health and safety systems could be identified from the literature synthesis and they were subsequently refined during the preliminary survey. Thereafter health and safety systems currently being used in the apparel industry were ranked and prioritised based on their RIIs calculated using the rankings given to them by the respondents of the questionnaire survey. The results of the questionnaire survey clearly indicated that “safety planning” with a RII of 0.365 is the system, most applicable in the apparel industry in Sri Lanka. “Measuring performance” and “employee assessments” are ranked second and third with a RII of 0.355 and 0.351 respectively. These top ranked practices are being used often in the industry. Table 2 presents the rankings of the seven health and safety systems identified.

Table 2: Significant health and safety systems used in the apparel industry

No	Health and safety systems used in the apparel industry	Level of practicing (%)					RII	Ranking
		SD	D	N	A	SA		
		1	2	3	4	5		
1	Safety planning	0.00%	0.00%	0.00%	17.50%	22.50%	0.365	1
2	Measuring performance	0.00%	0.00%	2.50%	17.50%	20.00%	0.355	2
3	Employee assessments	0.00%	0.00%	2.50%	17.50%	20.00%	0.351	3
4	Procedures	0.00%	0.00%	2.50%	20.00%	17.50%	0.350	4
5	Training on health and safety	0.00%	0.00%	5.00%	17.50%	17.50%	0.345	5
6	Auditing and reviewing performance	0.00%	0.00%	2.50%	27.50%	10.00%	0.335	6
7	Inspections	0.00%	0.00%	7.50%	17.50%	15.00%	0.331	7
1-Strongly disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly agree								

4.2 Applicability of leadership assessment tools to health and safety management systems

The leadership assessment tools that were identified from the literature were refined using the preliminary survey and Table 3 below presents nine of those tools that are being practiced in the apparel sector in Sri Lanka. These leadership assessment tools identified were integrated with health and safety management systems that were identified from the questionnaire survey. The three topmost health and safety management systems that can be used with each leadership tool ranked based on their RIIs are presented in Table 3.

Table 3: Integrating leadership assessment tools with health and safety management systems

No	Leadership assessment tools	Health and safety management systems	Level of practicing (%)					RII	Ranking
			SD	D	N	A	SA		
			1	2	3	4	5		
1	Document analysis	Safety planning	0.00	0.00	24.00	31.00	45.00	0.850	1
		Measuring performance	0.00	0.00	25.00	29.00	43.00	0.840	2
		Employee assessments	0.00	0.00	25.00	32.50	42.50	0.835	3
2	Workplace observation	Procedures	0.00	25.00	35.00	35.00	30.00	0.890	1
		Employee assessments	0.00	0.00	22.50	35.00	42.50	0.840	2
		Safety planning	0.00	0.00	30.00	27.50	42.50	0.835	3
3	Interviews	Procedures	0.00	0.00	35.00	40.00	50.00	1.030	1
		Auditing and reviewing performance	0.00	25.00	35.00	35.00	30.00	0.890	2
		Safety planning	0.00	0.00	25.00	35.00	40.00	0.830	3
4	Leadership assessment questionnaire	Safety planning	0.00	0.00	25.00	37.50	38.50	0.865	1
		Employee assessments	0.00	0.00	25.00	37.50	37.50	0.825	2
		Procedures	0.00	0.00	30.00	40.00	30.00	0.800	3

No	Leadership assessment tools	Health and safety management systems	Level of practicing (%)					RII	Ranking
			SD	D	N	A	SA		
			1	2	3	4	5		
5	Leadership checklists	Inspections	0.00	0.00	25.00	32.50	42.50	0.835	1
		Auditing and reviewing performance	0.00	0.00	25.00	32.50	41.50	0.830	2
		Procedures	0.00	0.00	25.00	40.00	40.00	0.820	3
6	Leadership audits	Inspections	0.00	0.00	25.00	32.50	42.50	0.845	1
		Auditing and reviewing performance	0.00	0.00	25.00	32.50	40.50	0.830	2
		Procedures	0.00	0.00	30.00	35.00	35.00	0.828	3
7	Competency assessments	Employee assessments	0.00	0.00	10.00	40.00	50.00	0.880	1
		Measuring performance	0.00	0.00	22.50	30.00	47.50	0.850	2
		Safety planning	0.00	0.00	22.50	40.00	37.50	0.830	3
8	Leadership inventory	Training on health and safety	0.00	0.00	25.00	40.00	35.00	0.820	1
		Safety planning	0.00	2.50	22.50	40.00	35.00	0.815	2
		Procedures	0.00	10.00	15.00	37.50	37.50	0.805	3
9	Score rating system	Safety planning	0.00	0.00	40.00	27.50	47.50	0.935	1
		Employee assessments	0.00	0.00	5.00	40.00	55.00	0.900	2
		Measuring performance	0.00	0.00	17.50	32.50	50.00	0.865	3
1-Strongly disagree (SD) 2-Disagree (D) 3-Neutral (N) 4-Agree (A) 5-Strongly agree (SA)									

According to the questionnaire survey results, “safety planning”, “measuring performance” and “employee assessments” with a RII of 0.850, 0.840, and 0.835 respectively are the safety management systems that can be used in the document analysis of leadership assessments. “Score rating system” has the highest RII. The RIIs of “safety planning”, “employee assessments” and “measuring performance” are 0.935, 0.900 and 0.865 respectively. These safety assessment tools will help companies to determine important aspects of the safety measures they have been adopted and will promote employee involvement in health and safety issues. RIIs of all health and safety management systems coming under each leadership tool are either 0.8000 or more. Therefore, it is clear that the leadership tools identified will strongly contribute to all of the health and safety systems used in the apparel sector.

5. Conclusions and Recommendations

The need for a leadership assessment tool in the apparel manufacturing industry in Sri Lanka was identified by analysing safety practices adopted by the industry. The majority of the health and safety management systems identified can be applied in a flexible working environment with a proper leadership assessment method. According to the findings, the score rating tool can be adopted as a leadership assessment tool in the apparel manufacturing industry so that benefits such as improved safety management and leadership performance can be gained. Cost saving and flexibility of management are the benefits of the score rating tool system. Because of time constraints, the scope of the research had to be limited to identifying only the required level of assessment in small, medium and large organisations of the apparel industry.

Based on the results, it can be recommended that a leadership assessment tool should be developed to measure the leadership commitment to health and safety management in the apparel manufacturing industry in Sri Lanka. This research was focused only on the local apparel manufacturing industry and thus further studies on this subject are necessary to educate and convince the leaders in Sri Lanka who are involved in managing health and safety at workplaces of different industries on the benefits of the system using presentations, seminars, workshops and continuous professional development (CPD) programs. The other employees can be subsequently educated on the results of the performance development in health and safety management, which will most probably be the preference in the future. It will be better to consider external customer requirements when developing an assessment tool to enhance the quality of leadership given to health and safety management. This tool is recommended for use with all the safety practices followed at workplaces and for fulfilling the internal and external audit requirements for improving the transparency of the management. The leadership assessment tool with to health and safety management.

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