

Evaluating the role of leadership within Construction SMEs, for improving health and safety performance

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Abstract

The construction industry is complex, dynamic and viewed as a high hazard industry. Official accident and ill-health data from HSE demonstrates conclusively that the health and safety performance of the construction sector is still below the all-industry average. Small and Medium-Sized Enterprises (SMEs) are vital to the technical development and sustainability of the UK construction supply chain. However, construction SMEs are also a significant high-risk factor for accidents and incidents. The greatest power for change being with leaders as they have the most influence. This research aims to evaluate the critical success factors, drivers and decision-making practices of leadership, which lead to positive health and safety improvements with the Construction SME sector. A qualitative research method using a focus group process was adopted and considered one critical stakeholder's group. The main themes were leadership, safety management and systems, health and safety culture and performance improvements. Data was reviewed and analysed within an encompassing 4 P structure of Partnership, Process, Performance and Pressures. The initial positive findings from "Partnerships" relating to communication through action, visibility and relationship trust and closely linked to "Pressures" through financial constraints, market conditions and understanding the business.

Keywords: Leadership, Safety Management System, Safety Performance, Construction, SME.

Introduction

The principles of promoting the construction industry's health and safety performance align with the main recommendations of the Farmer Review (2016). His report, explicitly undertaken for the Construction Leadership Council, highlighted adverse industry matters of structural fragmentation, workforce size, collective stakeholder leadership fragmentation and poor image, which has restricted the development of the construction industry within the UK. There is a growing dependency upon and influence of SMEs, and the part that they play within the construction industry supply chain. The development of the UK construction industry has led to a "Construction Labour Model" (Farmer, 2016) that is significantly reliant upon an SME supply chain. In 2018 the construction SME sector had more than 1 million organisations with an expected growth expected to be 3% per year (Department of Business, Energy and Industrial Strategy, 2018 New stats to be released 18th Oct 2019 Therefore, by having such a significant quantity of UK construction organisations within the SME sector, this creates an overall business vulnerability for the construction industry. Previous research undertaken with SMEs identified that SMEs take a different approach to risk and have a different perspective on dealing with extreme events than large organisations (Sullivan-Taylor and Branicki, 2011).

Therefore, by considering existing skills, knowledge and behaviours of entrepreneur directors, owners and front line supervising leaders of construction SMEs, consideration of best industry practice and

innovation could create an altered approach for health and safety performance improvement. Stogdill (1950) defined leadership as “the process (act) of influencing the activities of an organised group in its efforts toward goal setting and goal achievement,” created an important distinction that went beyond merely defining leadership solely within the individual.

Theories have been developed to categorise and identify causal determinates of the effectiveness of leadership, such as their traits (Fiedler 1978), behavioural styles (Fleishman et al. 1973), dyadic relationships (Graen, 1976) and subordinate perceptions (Hollander and Julian 1969; Lord 1998), transformational acts (Bass, 1985). These theories have developed and relate to those of transformational theory (relationship theory) (Sashkin, 2004) and transactional theory (management theory) (Bryant, 2003). The purpose of developing leadership or structure is to a way of providing models that can be developed and implemented for the growth of essential leaders (Bray, Campbell and Grant, 1974; Glickman et al. 1968 in Fleishman and Mumford 1991). Kempster et al. (2011) views the role, purpose and practice of leadership going beyond vision, mission, shared goals, objectives and plans. Hunt and Conger (1999) link to a broader corporate social perspective in balancing the need of individuals, responsibility towards society and future generations and the sustainable need to generate profits.

The philosophy of implementing a health and safety management standard, such as ISO 45001, is the aim of providing a framework to reduce the impact of health and safety accidents in the organisation, irrespective of the size of the organisation or industry. This aids in providing greater independent assurance as to its leadership role and requirements (Roberts, 2016). The importance of focusing on the role of health and safety through leadership, within Construction SMEs, requires a greater understanding of the relationships between the leader and stakeholders (Partnerships) and the business environment (Pressures). The leader will have a perception of the external drivers (Performance) of health and safety for business sustainability (Process) and convey their vision and values through interaction and communication with employees and the broader stakeholder community. The elements of vision and values are significant within leadership theory, particularly transformational leadership theory, as these elements have been identified as encouraging trust as a universal significance between the leader and the follower (Gillespie and Mann, 2004).

Zohar and Luria (2005) recognise the vital importance of safety culture and leadership and provide a new perspective of leaders as a relevant role model within safety culture. The ability to influence others recognises the importance of a leader as a role model and create a strong belief in charismatic leaders (Cooper, 2005). Cooper also acknowledged that effective leadership is an essential feature for active safety culture because leaders determine the attitude of the organization’s members regarding safety issues and their corresponding reactions. Burns (1978) identified that the theory of leadership is exercised when persons with certain motives and purposes mobilise resources to arouse and satisfy the followers’ motivations and that our historical view of leaders is quite negative. The relationship between the leader and the follower is not about coercion and exploitation. The most powerful influences are human relations and engagement. Real leadership consists of leaders inducing followers to act for specific goals that represent the values and motivation of both leader and follower. The more senior the leader, the higher their potential influence can be for safety (Flin and Yule, 2004).

Skeepers and Mbohwa (2015) found that construction health and safety performance is affected by leadership behaviour, with improvement where there are strong foundations in communication, commitment and employee training. They go on to suggest that the sound principles of leadership are the same positive behaviours associated with safety management and are themselves generally progressive leadership behaviours. The management philosophy of Deming’s Plan-DO-Check-Act cycle

(1982) identifies employee engagement, teamwork and continuous improvement as being key behaviours for health and safety leadership.

A significant motivator for SMEs' leaders is the long-term financial development of the company. Therefore, a more defined link should be created between leadership, improved health and safety performance and the impact for company development. The impact of which relates to a potential for the socio-economic development, for local areas, (Kheni et al. 2007) where construction SMEs attraction their workforce and work. A real opportunity for improving safety standards, within SMEs, may consider the innovative leader (Basu and Green, 1997) and entrepreneurial leader (Taylor and Branicki, 2011 b) as having the opportunity, beyond that of the resources associated with larger organisations, to improve health and safety performance.

Previous research for health and safety within construction SMEs had focused on Safety Management Practices and legislation (Unnikrishnan, et. al 2015) training (Holte et al. 2015), behavioural safety (Stiles, et. al 2012), safety culture (Agumba and Haupt, 2009) and politics and social culture (Kheni, Dainty, Gibb, 2007). Other research has considered leadership for health and safety SMEs; however, this was not in a construction context (Mirza and Nizma Isha, 2017). Therefore, a gap in the literature identifies an opportunity to focus on leadership's role in improving health and safety performance within construction SMEs.

Methodology

Qualitative study

A qualitative research study approach was applied to study leadership's best practice for health and safety within construction. The qualitative research approach would allow for a specific context to be analysed from a real-life, lived experience through a focus group. The focus group participants were chosen on a deliberative sampling basis and consisted of six elite, construction, health and safety professionals. A small number of participants were chosen for the focus group due to being more natural to host and manage. As the small group size can be viewed as a limitation, the justification was for the participants' to be comfortable and allow for an unhindered in-depth insight into their experience, which is better accomplished by a smaller group. A smaller group allows each participant more time to share their experience, gain understanding, and explore, in context, examples. The benefits are that all participants can develop intense or lengthy experiences, which aid discussion (Krueger and Casey, 2014). The participants work in construction, with between 3 and 40 years of experience, from SMEs to large, global-sized organisations and are predominantly based in Scotland.

By evaluating the professional lived experiences and opinions and comparing the different characteristics, an initial framework of possible cause and effect (Mathews and Ross, 2017) was developed in alignment with the qualitative research approach. As a focus group, the strategy considered the main themes in line with the literature review. The focus group was allowed to review the collected data for validity, add comments, or clarify their comments. Semi-structured questions were used to provide a conversational tone and allow the participants to use their own words (Longhurst, 2016).

Sampling

The purposive sampling focus group was of Health and Safety professionals. This group allowed the views from a wide range of experience, including the organisation's size and different construction industry sectors. This data source was to allow for a view of positive and negative leadership practices.

The range of experience and variety of the size and type of construction sector provided various topics relevant to experience; however, much was made of contemporary examples allowing other participants to develop.

Data collection and analysis

The main features of a leader

The data collection consisted of providing questions based upon the fourth main themes identified within a literature review: Leadership, Safety Management, Health and Safety Culture and safety performance. A thematic analysis was then undertaken to identifying the relationship with Sodhi and Tang (2017) 4P conceptual framework (Pressure, Partnerships, Practices and Performance) relating to specific action parameters. Previously the benefits of using such a method allowed for the development between theory and practice (Goi, 2009). Their structure provides an inclusive methodology based upon broader literature themes which relate to each other for performance measurement:

1. Pressures (Planning and reacting to Industry and market: the work and economic environment).
2. Partnership (Leadership theory: relationship and motivation between the leader and the follower).
3. Practice (Behaviour process and practices related to health and safety, climate culture, management and controls) and the relationship of the first 3 Ps to
4. Performance (measures that define a baseline and allow for improvements).

Identifying other constraints such as pressures demanded upon a leader and the impact on the relationship with the follower provides a perspective of the impact of the 4Ps on beliefs, behaviour, and relationships for the construction SME leader's health and safety performance.

The first discussion topic related to the main features of "positive leadership". The traits (Fiedler, 1978), behaviours (Flieshman, 1973) and expectations of a positive or good leader explored.

The focus group provided examples of positive leaders and relationships they had experienced, with one participant discussing the relationship with the DuPont Bradley curve theory as a method of performance development of a maturing organisation.

Variation of health and safety leadership between an SME and Large Company

This discussion wished to explore what differences exist between the leadership of health and safety SMEs and Large (L) construction companies (Table 1). The identification of difference is essential to establish since health and safety legislation has limited progressive aspects and attracts all companies irrespective of the size of the organisation and the limited research for Leadership within Construction SMEs.

There were general elements of consensus and distinct differences between leadership for SMEs and Large construction companies, which also relate to health and safety, which can be applied to benefit performance improvement.

Table 1 - Variation of health and safety leadership between an SME and Large Company

Partnerships	Practices	Pressure	Performance
Their people, they care. (SME)	Pros- easy to communicate, easy to change (SME)	Go with standards set by e.g. client, main contractor, greatest influence in the supply chain. (SME)	Difficult to measure leadership. (SME and L)
Fear of enforcing positive practices up the chain/client. (L)	Communication-can be difficult to change. (L)	Financial pressures (SME)	Self-motivated (SME)
Provide or allow for empowerment down the line. (SME)	Complex process for large organisations (such as due diligence etc.) (L)	Values of others influence. (SME)	Desire to grow (SME)
Authority given to Health and Safety Managers. (SME)	Easier for large Orgs to influence H&S (positively/negatively) Easier for SMEs to adapt. (but, sometimes happens through external pressure) Be an Advocate of system (L) Leadership, positive practices (SME easier to observe)	Values of individuals brought onto the site. (SME) Timing of others constraints (deadlines and demands) (SME) Barriers/clashing cultures with others (SME) Limited and access to resources (SME)	Higher level of H&S Leadership (SME)

Identification and evaluation of external factors on health and safety leadership

This discussion topic was to review the complicated relationship between the leader and follower as they are influenced by other factors and not a binary function with influences outside the leader's control (Table 2), such as those that affect a whole industry. The discussion associated with this topic, centred around the combined areas of partnerships and pressures from stakeholders, predominantly from the more powerful section of the supply chain. Positive elements can be identified that external drivers can add value to an SME, such as support from the supply chain and working to higher standard requirements.

Table 2 - Identification and evaluation of external factors on health and safety leadership

Partnerships	Practices	Pressure	Performance
Build loyalty (lead to investment of time/money for training and support within the supply chain)	Ability to change to meet demands	Provision of continuity of work- Positive aspect	Reputation
Potential for government initiatives (e.g. asbestos removal creates work)	Should be considered with in a wider risk management context	Time pressure created by others	Negative driver for H&S Leadership action
Relationship with client	Greater potential for the use of technology	Sustainability of work	The size of the organisation and the ability to cope
Cultures created by Large Organisations	Beliefs	Penalties for SMEs	External influence on SMEs can add value
Redirect leadership through interventions of e.g. HSE (Fee for Intervention has changed relationships)	Behaviours	New systems guidelines for HSE prosecutions/fines	Professional body information (healthy working lives campaign (goals, aims accreditation)
Big organisations helping small organisations	Gain access to tender lists (ISO accreditation, leadership requirements)	Cost cutting practices greater influence on SMEs sustainability	Sense of achievement (IOSH merit of award)
Professional body support (health working lives campaign)		Current market conditions	Industry recognition
Third party Accreditation (ISO 45001)			Ability to access funds and grants for training and technical competency (vital for SMEs)
Education- Further and Higher education providers –level of H&S provision and recognition			

The impact of Leadership on Health and Safety Culture

Cooper (2001) detailed the importance of leadership as a useful trait for a positive organisational health and safety culture, as it helps define how members of the organisation will act when safety matters. Therefore, it was essential to obtain the perspective of leadership and the relationship as well as the elements that impact the SMEs health and safety culture (Table 3).

The most significant influence on health and safety is related to the practices of the leaders. These points of discussion are then closely linked to the organisation's comments for health and safety performance.

Table 3 -The impact of Leadership on Health and Safety Culture

Partnerships	Practices	Pressure	Performance
Maintain contract relationships through culture	Awareness of health and safety culture helps identify “why you are doing it”	Understands the business financial position	An evaluation of culture (Bradley curve theory)
Support by most senior person	Two-way communication (Good communicator)	What am I spending and why am I spending it	Understands what it is the business is trying to achieve
Credibility though Respect, Trust and being convincing	Credibility, ability to argue and convince		Safety is a value not a priority
Trust is earned – it needs to be a constant	Understands the business		Values need to change, lead by involvement
	Lead by example		Identifies standards
	Visible action of most senior persons		
	Engagement (buy-in)		

Findings and Discussion

Within the discussion associated with the main features, the discussion topics were spread across the four elements of Partnership, Practices, Pressures and Performance. However, the most central theme was associated with Partnership and the relationship between the Leaders and the follower predominantly from the follower's perspective. This theme suggested that respect, care, other people's view, approachable, and communication would be expected of a leader. These elements of leadership then related well to Performance, not in the number of responses but the emotive language use, vision, passion, drive and expectation. It would suggest that the follower is looking for a purpose to believe this is someone worth following.

With limited research associated with leadership within construction health and safety SMEs, it was essential to evaluate if there was suitable differentiation between the leaders of health and safety for SME and Large construction companies. The Pressure component identifies that there was potential more for leaders of an SME to consider due to the diverse roles undertaken by the Director/Owner to address other areas other than solely construction practices. The second most prominent component was Practices. These became positive aspects for SMEs due to the shorter links in communication and potentially more natural change of direction and tactics with the often research identified problems for SMEs of financial pressures. A subsequent question was asked of SME leaders as entrepreneurs. All participants agreed there were significant elements of cross over, between aspects of an Entrepreneurship, to that of a leader. It was agreed that the Entrepreneur would be at the start-up stage of innovation for the company. Many adjectives were used to identify what an Entrepreneur was however, at some point, there would need to be a change, if the business was to grow as per the strategic principles of an SME. An Entrepreneur would need to exhibit or develop leadership skills to create motivation of the follower, through clear and appropriate communication. Only then would this allow the organisation to transform, develop and grow further. For improving performance, there would still be drive to grow the organisation; however, it is the limits of the

leader's knowledge and understanding that often prohibits the company's growth due to the requirement of additional special skills associated with an entrepreneur (Taylor and Branicki 2011). Overall the opinion that the Entrepreneur could take a business only so far, and the next stage of development would be based upon leadership.

The relationship between a leader and the follower is not single-dimensional. External factors impact the relationship. Influencing external factors are associated with the external partnerships and stakeholders within the supply chain, as well as the effects of unplanned health and safety issues from the site and addressing change from clients and other contractors. Addressing the continuity creates additional external pressures by meeting demands of others' time scales, standards and quality were also identified as pressures, more so for SME contractors due to the limited resources, not so much the flexibility of resourcing tradesmen but their availability. Positive aspects were supported by large organisations, who allow access to resources such as training and health and safety guidance from their organisation. One participant's view was that "real health and safety leadership would be working to the aspiration of no accidents" and supported by another as "the real focus for health and safety leadership."

An organisation's culture is a driving force for growth, development, and performance (Cordes, et al. 2011). The first response identified that leadership was significant to the organisation's culture and was attributable to the previous element discussed. Practices were identified to have the most significant impact on the culture with the influence on health and safety performance. Therefore, the leader's awareness, credibility, leading by example, and visible actions to create trust and buy-in from the follower would again identify health and safety as a value (Reiche et al. 2017). The expectations and standards set by the leader create the culture and in turn, would have the most effect on health and safety performance.

Conclusions

One of the most significant findings from the focus group is that there is a difference between the leadership role within an SME compared to that of a large construction company. It requires additional skills, a broader understanding of soft skills such as communication and motivation, technical skills for construction and health and safety controls for the hazards encountered, and people skills for the followers' motivation. These skills are achievable within the setting of additional external pressures of the SME, including financial, economic climate, design and market changes. Of the framework elements, themes, all except the features of a leader, often exhibited a close relationship between two of the 4P's, clearly identifying the relationship which leadership has with the elements of the structural framework of Partners, Processes, Pressures and Performance and the potential permeability of health and safety performance improvement has for construction SMEs. With the inclusion of flexible access to continual personal development, leadership skills, and progressive, relevant health and safety performance improvement processes can improve the link between leadership and health and safety performance within construction SMEs. This research is limited by a narrow view of the leader-follower relationship within a localised Scottish perspective. It did not specifically identify any particular type of construction SME regarding the Owner/Director, the site supervision, or site operative. However, the data was from a precisely focused expert perspective on construction health and safety, and the discussion considered health and safety, to the organisation.

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