Arthur D Little

Competence at the heart of a safe organization

Achieving consistently strong safety performance through a competent and capable workforce



Effective competence management is a fundamental component of any safe organization. Good competence management systems provide senior managers and executives with assurance that the workforce has sufficient skills, knowledge, and experience to undertake their roles and associated tasks safely. Weaknesses in these systems can mean that the organization is vulnerable to incidents and accidents that the workforce could and should have prevented. Capable staff at all levels in the organization design and implement risk controls that deliver safe outputs. This Viewpoint poses key strategic questions that business leaders should ask in order to determine if their competence management arrangements are robust and effective.

Competence management is a strategic risk

Competence can be described as the combination of skills, knowledge, and experience an individual has that enables them to perform a task or role safely and efficiently. How an organization chooses to manage competence is a key strategic decision with material consequences, yet it is common for organizations to treat it as little more than an administrative task. There exists a paucity of competence management strategies across the high-hazard industries, with an associated stagnation in innovation. A strategic approach is essential in providing a coherent framework to support competence management in a way that is optimal for the specific organization and responds to stakeholder needs. A competence management system (CMS) is the collection of operational arrangements within a company that are available to collectively manage competence and deliver the competence strategy.

Consequences of poor competence management

Failure to effectively manage competence increases the risk of incidents and accidents. A tragic example is the Grenfell disaster

in which 72 people lost their lives when the London tower block caught fire in 2017. A review by the UK Ministry of Housing, Communities & Local Government, overseen by Dame Judith Hackitt, identified a number of serious failings in competence management that contributed to the disastrous compromise in fire safety.

Alongside the potential human cost, such events are also likely to incur financial costs from uninsured losses, diversion of resources, and increased supervision, among others. An organization may also be at risk of legal action, with a potential to lose critical licenses and accreditations.

The benefits of a robust CMS extend beyond good safety performance. A competent workforce is more likely to deliver work that meets expectations of quality and schedule, for instance, and thus protect reputation. More broadly, knowledge of an organization's competence profile can assist in recruiting and retaining talented employees. An effective and strategic approach links and aligns the CMS to business objectives.

"[A] whole host of circumstances may have contributed to the rapid fire spread and ... failings in the relevant competences across all those working on higher risk residential buildings is likely to have been a key part of that mix."

Industry response to the Grenfell disaster in June 2017

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Key questions in developing your approach

Executives and senior managers must have an appreciation of competence management as a strategic issue in order to develop an understanding of how to deliver improvements. The following five questions are designed to help an organization assess its competence management arrangements and determine how appropriate they are for the business.

1. Does your approach to competence management align with stakeholder expectations and corporate objectives?

The *Human Resource Executive* regularly finds "aligning people strategies to business objectives" to be a key challenge in its annual "What's Keeping HR Up at Night?" survey. However, it is a task that must not be neglected. This is the opportunity to translate corporate objectives and stakeholder expectations into actions and behaviors.

Every organization exists in a unique operational environment with its own risk profile. A generic CMS is likely to consume a significant amount of effort without delivering the desired outcomes. The competence management strategy is the conduit to tailoring your CMS to your business, your stakeholders' needs, and your risk appetite.

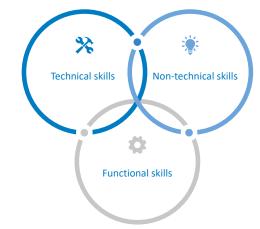
Understanding stakeholder expectations is a key part of this process. Who are your stakeholders? It may be useful to use a method, such as a stakeholder needs analysis, to identify expectations and review them periodically, as they are unlikely to remain static. Sometimes, expectations are obvious and easily tracked. For example, the UK railway industry's Risk Management Maturity Model (RM³) clearly sets out the expectations of the industry's economic and safety regulator. However, the needs of your line managers, for instance, are likely to be less explicit and more fluid.

2. Do your competence frameworks provide sufficient coverage for the roles that your workforce undertakes, and do they link to your competence management strategy?

Many competence frameworks are designed based on risk assessment of tasks. While sound in principle, there is a risk that competence management regresses into a badge-collecting exercise, with individuals attending disparate training courses for competence "tickets" on a task-by-task basis. This kind of approach overlooks the inherent nature of most work – tasks are rarely carried out in isolation, but instead are usually undertaken as part of a wider role. It is often more appropriate to take a holistic approach to defining competence profiles and training requirements, taking into account the whole job role rather than breaking it down into distinct tasks. An increasingly recognized component of competence are non-technical skills (NTS). These are the more generic skills that enhance the way in which an individual performs a role. Examples of NTS include decision making, problem solving, and knowing the limits of one's competence.

Alongside core functional skills such as literacy, numeracy, and computer literacy, NTS combine with technical skills to more accurately reflect a role's necessary competence requirements (see figure below). The concept of "capability" encompasses this idea of traditional competence plus these additional skills.

The core components of competence





In some organizations, such as in the military, the concept of SQEP (suitably qualified and experienced personnel) is used to draw together role-based competences and NTS. SQEP requires both professional qualification and significant experience. Training is provided for the role, meaning NTS can be easily incorporated, but competence does not end here. SQEP recognizes the importance of practicing skills and only awards full SQEP status when an individual has accumulated the necessary experience.

Your CMS should:

- Offer competences that are **proportionate** to the role.
- Train staff for roles rather than tasks.
- Cover non-technical and functional skills.
- Manage capability.
- Recognize the importance of experience and practicing skills.

Competence management is also useful when considering succession and resilience planning. It is important to provide coverage for current competence requirements as well as those required in the future. There are benefits of competence management to succession and resilience planning, including:

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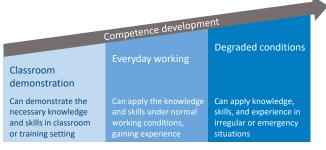
- Preparing individuals for the next stage in their career.
- Preparing for changes in the operational environment (e.g., digitalization, increased working from home).
- Ensuring sufficient capability exists to mitigate extraordinary circumstances, such as during COVID-19 or extreme weather events.

Developing competences, particularly to a SQEP level, takes time, so organizations must plan accordingly. These efforts should also be reflected in their competence management strategies.

3. Is your workforce capable of operating in degraded, emergency, or irregular situations?

The ability to perform a role to a recognized standard under normal working conditions is sufficient to ensure safe working in most circumstances. But what if conditions change (see figure below)? How can you prepare your workforce for extraordinary circumstances?

Competence development must span different types of situations



Source: Arthur D. Little analysis

An important distinction between everyday working and working in degraded conditions is the lack of opportunity to practice. In most roles, individuals regularly practice skills, gaining experience and improving proficiency. This is not the case for irregular working conditions, which may occur a couple of times a year or perhaps only once in a career. Examples of such situations include train operators who encounter fog, pilots who must crash-land a plane, or police who are confronted with terrorist incidents. While rare, it can be vital that these individuals are competent in these circumstances.

It is possible to provide opportunity for practice by replicating degraded conditions through the use of simulators and drills. This type of practice is commonplace in some high-hazard industries. Pilots, for example, are required to spend hours in flight simulators training for every imaginable situation, including landing in fog, engine failures, and bird strikes.

While simulators may not be appropriate for the nature or the budget of your organization, drills can be implemented across a

range of situations for little more than the cost of the associated "downtime." You can simulate irregular operating conditions or emergency situations through the likes of role play or "table-top exercises." Drills can be particularly useful in training team leaders whose decision-making and people management skills are likely to come under pressure in these circumstances.

Important strategic decisions are involved in determining how realistic you want your simulation environments to be and at what frequency they are used. A like-for-like scenario, for example, is likely to be costly and has the potential for undue emotional stress on employees. Conversely, if your simulations are too unrealistic, you are unlikely to achieve the desired outcome of practice under extraordinary circumstances. You must also decide how often to perform simulations and drills. These decisions will be linked to a risk assessment of the potential situation (and thus expected frequency and consequences) as well as your organization's risk appetite.

4. Does your CMS provide assurance that members of the workforce have sufficient skills, knowledge, and experience to safely undertake their roles and the associated tasks?

Your organization may have a CMS in place, but can you say with confidence that your workforce is competent to undertake the roles that they perform? And can you justify this with evidence? An outcome of the competence management process should include this kind of assurance.

Assessment of competence is an important contributor to the assurance process. As such, your process should ensure:

- Independence in assessment. Often, an individual's line manager is charged with performing the assessment, which creates an inherent conflict of interest. A degree of independence should be integrated, such as sample checks from a third party, to monitor the validity of this process.
- Competence of assessors. Despite playing a vital role in the competence management process, many individuals who are responsible for assessing the competence of others do not themselves hold formal competences as assessors. The CMS should ensure that assessors are capable of performing their role.
- The ability to fail. Many assessors can be hesitant to fail an individual even when the individual's performance is substandard. Failure to award competence – or withdrawal of a competence – has the potential to create additional workload for many people. At the same time, the situation also provides an opportunity for personalizing development for an individual, with positive consequences for the wider team as a result.

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5. Does your CMS operate efficiently, including producing KPIs and KRIs?

An integral component of a CMS for medium and large organizations is a computer database of competence records for the workforce. Organizations often underestimate the importance of procuring appropriate software, with too many settling for a suboptimal system. However, the opportunity to find a replacement in the future may be difficult, and so what may feel like a small procurement compromise one year becomes a long-term aggravation for many in subsequent years. It is crucial to ensure that any software or database is easy to use and minimizes administrative burden, encouraging proper and effective implementation of the CMS from the workforce so they see it as more than just additional bureaucracy.

A competence management database holds a wealth of data that is often underutilized. Records of competence within your organization can easily be deployed to monitor the performance of your CMS:

- **Key performance indicators (KPIs)** track an organization's performance in relation to strategic priorities.
- **Key risk indicators (KRIs)** provide foresight of potential and emerging risk, as well as current risk exposure levels.

Examples of such indicators include the number of expired competences or competences close to expiry, the competence "gap" between the target and the actual competence profile, or the number of drill exercises performed during a certain period. Such metrics can enable your organization to identify areas of concern or areas to target through both lagging and leading indicators. In most cases this data already exists, but are you utilizing it to its full potential?

Conclusions

Managing the competence of your workforce should not be regarded as a bolt-on administrative exercise but instead be recognized as an integral and fundamental part of running a safe and successful business.

Our research shows that few organizations have a competence management strategy in place that aligns to stakeholder needs and corporate objectives, leaving them vulnerable to safety incidents and unable to capitalize on potential opportunities.

A well-motivated, productive, safe, and high-performing workforce is clearly linked to sustained business success, and developing an effective CMS is therefore critical.

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