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LOCAL ACTION WITH INTERNATIONAL COOPERATION TO IMPROVE AND SUSTAIN WATER, SANITATION AND HYGIENE SERVICES

An innovative framework for embedding knowledge management in an organisation: a manager's perspective

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This paper recommends moving beyond the form of knowledge management which relies on individuals taking responsibility to learn and improve practice, to implementing a more comprehensive approach where knowledge is at the core of business, so that the sector more effectively, efficiently and sustainably meets the needs of target populations. It provides a valuable framework for managers and leaders to consistently support local action in order to improve and sustain water, sanitation and hygiene (WASH) services. Alternatively, the framework can be used by local actors to strengthen their organisations. The paper is based on experience, case studies and a literature review. The author is a WASH and Integrated Management System specialist, who has developed, implemented and reviewed successful 'bottom-up' management systems that focus on empowering local teams in corporate, development, and humanitarian settings.

Introduction

This paper provides an innovative framework for 'embedding' knowledge management (KM) in a WASH organisation or programme, based on the author's experience of the WASH sector, KM and integrated management systems. It aims to guide and inspire managers and leaders.

The paper builds on recent research and review in the WASH sector. It also acknowledges and builds on the work of Ben Ramalingam (2008:p6), then with ALNAP, who reviewed a number of models including Argyris' 'Learning Loops' and Senge's 'Learning Organisation', and concluded that "the models and approaches borrowed from other contexts have proved less than relevant, and even inappropriate, for aid work". However, he highlighted that: "learning initiatives could be further strengthened by paying more attention to 'home-grown' approaches to learning ... from the experiences of people who have lived and breathed the complex realities and multiple perspectives that aid organisations face on a daily basis. It means taking greater pride and working harder to develop and disseminate those approaches to learning that have emerged from within the aid sector itself". This paper provides a systematic approach to following this advice.

For the purposes of this paper KM "represents a way of managing work, paying due attention to the value and effect of an intangible asset, namely knowledge" (Milton & Lambe, 2016:p7). A study into how "Civil Society Organisations learn and improve WASH programming and practice to align with evidence-based approaches" found that "leadership" was one of the key enablers to learning (Grant, Murta, Willetts, Carrard & Powell, 2016:p10). The first recommendation in WaterAid's review of learning and knowledge sharing practices was that "Knowledge management should be embedded in the organisational structure" (Cranston & Chandak, 2016:p3). Even earlier, Britton (2005) found that two of the seven common reasons for the failure of KM projects were that KM was not introduced with a business focus and was not embedded into the business. The proposed framework focuses on the role of managers in embedding KM in an organisation.

Innovative framework: ‘management-led’ knowledge management ladder

Approaches to embedding KM in an organisation can be considered as a ladder of successive levels of organisational maturity. This proposed ladder is demonstrated in Table 1 with each level showing successively higher management involvement. From Level 1 which is focused on knowledge products only; Level 2 with ‘individual-led’ KM; Level 3 where specific KM tools are systematically used by managers; Level 4 where knowledge and learning (K&L) is core to the business; to ‘Level 5: which is an ‘Integrated Management System’ covering ‘all of business’.

Level	Title	Explanation	Likely quotes
5 (high)	‘Management-led’ KM: Integrated Management System	‘Whole of business’: For Knowledge & Learning (K&L) plus quality (e.g. sustainable delivery of WASH services), environmental impact and safety. Risk-based. Systematic; multi-layer; covers plan-do-check-act; supports self-empowerment of local teams and localisation; prioritises, captures and continually improves knowledge base; bottom-up; strengthens partners, government, research, sector	‘Knowledge may not be explicitly articulated; it is just how we work’
4	‘Management-led’ KM: K&L is core	For K&L only Systematic; multi-layer; covers plan-do-check-act; supports self-empowerment of local teams and localisation; prioritises, captures and continually improves knowledge base; bottom-up; strengthens partners, government, research, sector	
3	‘Management-led’ KM: Systematic	Systematic use of tools by line managers, such as ‘after action review’ etc. (B. Ramalingam, 2006)	
2	‘Individual-led’ learning	Management input primarily for ‘buy-in’ and financial support. Primary responsibility with a Knowledge Manager to facilitate Communities of Practice, newsletters, etc.	
1 (basic)	No action / Knowledge sharing to external audience	Knowledge sharing such as conference papers, marketing documents and donor reports	‘We employ experts’

The concept of embedding KM in an organisation is widely recognised as a key goal. For example, this goal is outlined in practical KM references, such as Collison and Parcell's (2004) ‘Learning to Fly’, and Ramalingam's (2006) ‘Five Competencies Framework’. However, the term ‘embedding’ is quite broad. The phrase ‘management-led KM’ has been introduced in the ladder to specify a particular type of embedding; that is, KM being led by line-management as an integral part of how teams work. The following commentary explains each level of the ‘management-led KM ladder’.

Level 1: No action / knowledge sharing to external audiences

These organisations consider that they ‘employ experts’ and have limited internal KM approaches, apart from sharing knowledge with others in the form of conference papers, marketing documents and donor reports.

Level 2: ‘Individual-led’ learning – the current situation

Many WASH organisations have put significant effort into KM and have established communities of practice, mechanisms to share ‘good practice’, data-repositories, webinars and newsletters. The focus of KM at level 2 is “knowledge sharing mechanisms and practices” (Odhiambo & Pels, 2004:p206).

KM initiatives in these organisations are generally about the ‘supply’ of knowledge rather than the ‘demand’, and leave the responsibility for learning and converting it into practice to the individual. Many practitioners are overwhelmed by the supply of information and their workload often reduces the priority for

engagement. As stated by a Civil Society Organisation (CSO) WASH practitioner: “We’re not stuck for resources – we’re stuck for filtering and time” (Grant et al., 2016:p12). Some organisations have addressed this by ‘motivating’ individuals to engage, and have considered refocusing recruitment towards specialists experienced in reading research papers.

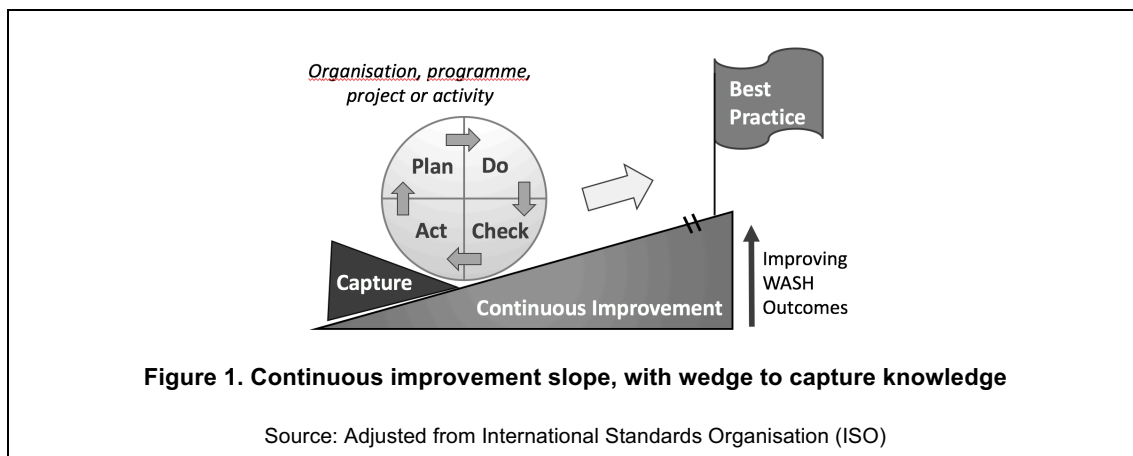
KM initiatives which rely on individual motivation are characterised in the ‘management-led KM ladder’ as ‘individual-led’ KM. Here the role of senior management is generally limited to “management buy-in and support” (Visscher, Pels, Markowski & de Graaf, 2006: p24), rather than leading or having an active role in the process. Dedicated “Knowledge Managers” are “often the ones who drive KM efforts” (ibid.). This reduces the alignment between KM initiatives (the ‘supply’ of knowledge) and priority business needs (the ‘demand’ for knowledge); for example, the production of marketing material, case studies or collation of good practice which are not used, or built upon, to generate change.

Level 3: ‘Management-led’ KM – systematic

These organisations use KM as a core part of line-management technique, embedded in how teams work. At level 3, managers systematically use some KM tools, such as ‘after action review’ (B. Ramalingam, 2006), with their teams. At this level, organisations are beginning to use both the ‘Plan-Do-Check-Act’ management cycle as well as the ‘continuous improvement slope’, shown in Figure 1. Levels of compliance to both of these processes increases over the three levels of ‘management-led’ KM. A brief introduction and discussion of their relevance is proposed below.

Plan-Do-Check-Act management cycle

Deming’s Plan-Do-Check-Act cycle (incorporated in Figure 1) supports a ‘whole of business’ approach: you ‘plan’ to do something, you ‘do’ it, you ‘check’- monitor or evaluate the progress or result, and then you ‘act’ on your identified lessons to adjust your future ‘plan’ mid-project or between projects. The Plan-Do-Check-Act cycle also supports continuous improvement as it is an ongoing cycle which is as relevant to high-level strategies as it is to team or individual projects.



‘Management-led’ KM uses this cycle to identify key good practice at each stage, and to capture, use, and continuously improve it, using a risk-based approach to focus on mission-critical processes. Many WASH organisations / programs are particularly weak in the ‘Act’ phase; that is, converting the results of the ‘Check’ phase (lessons learned, monitoring reports or evaluations) into change in practice. This weakness is echoed by Hulsebosch et al. (in press) as quoted by Le Borgne & Cummings (2009:p22), noting that “in development, there is far too much assessment and far too little sense-making of the assessments”. Furthermore, in Grant et al. (2016:p13), the “weaknesses identified by CSOs and non-CSOs to knowledge and learning processes and practices” includes “lack of time for reflection and to take on the results of M&E processes and data”. Simple systematic systems led by management can reduce this happening, facilitating continual improvement within and between projects. Many organisations have systems in place to attempt to address this, such as Monitoring, Evaluation, Learning (MEL), action learning, and adaptive management systems.

Capture continual improvement with the ‘wedge’

Several studies indicate that between “20-30 per cent of an organisation’s resources are wasted reinventing the wheel” (Boshyk, 2000, in Odhiambo & Pels, 2004:p207). The objective of the Plan-Do-Check-Act cycle is to continually improve the sustainable delivery of WASH services. However, this good practice is often lost when key staff leave or in the time between projects or activities. So, the next objective should be to ‘lock-in’ or capture critical good practice to avoid the team or others having to reinvent the wheel. The continuous improvement slope, in Figure 1, shows an organisation, programme, project or activity using the Plan-Do-Check-Act cycle to progress towards best practice, and in doing so, improving WASH outcomes. Best practice (the flag in the diagram) is noted as an aspirational goal and is never achieved. A critical component in the model is the ‘wedge’ which is used to ‘capture’ good practice so that it is not lost.

The ‘wedge’ can take various forms and should suit the learning needs of the local team. For example, the ‘Guides to achieve results’, produced to improve the outcomes and capture continual improvement of the author’s WASH team, utilised short action-oriented guidance notes written with the local team, such as annual planning with government, an indicator guide for projects and surveys, and document management. East Meets West Foundation used a ‘walking’ wedge, a roving ‘star’ local actor (government member) who visited other project areas to learn and share good practice. Alternatively, the wedge may take the form of guidance for managers to systematically support their team and partners. The wedge is designed to capture critical information and important processes only. The team-agreed necessity for specific wedges leads to a ‘demand’ for knowledge which is captured to suit the context and can utilise KM initiatives such as Communities of Practice. Any wedge which is not used should be discarded or replaced as it is not fit-for-purpose. The process should be empowering for remote teams to help them to achieve sustainable delivery of WASH services more effectively and efficiently, rather than it taking more time than is saved.

Level 4: ‘Management-led’ KM – knowledge and learning is core

At level 4, programmes have systematic approaches for Knowledge and Learning (K&L), such as how they:

1. **Go beyond good practice.** Learning from others: at the global level (research, policy, good practice); from national and local government, partners and other organisations; local teams; across the sector, and/or from within the team’s own organisation.
2. **Act on the effectiveness of the approach, institutionalise good practice and continually improve.** While progressing through the Plan-Do-Check-Act cycle, these programmes learn from local actors (such as government, local water authorities, private sector and implementing partners) and the target population / affected people (directly and via local actors), and continuously improve and capture critical good practice in a context-appropriate way.
3. **Improve performance (delivery of service) of external actors.** These programmes disseminate evidence-based good practice in a format and manner designed to improve other’s service delivery, such as a training manual produced for use by government and other WASH organisations.

Some examples of the level 4 approach from SNV Netherlands Development Organisation’s Sustainable Sanitation and Hygiene for All (SSH4A) programme include (Halcrow, 2017):

1. To cover the three K&L processes outlined in level 4: for key topics, such as behaviour change communication and performance monitoring, supply chains and finance, governance for sanitation and hygiene and scaling up, SNV management facilitated a sector-wide moderated Dgroup e-discussion, followed by face-to-face workshops (attended by government, field staff, topic experts, and their research partners – IRC International Water and Sanitation Centre). The resulting approach was verified in several countries before ‘good practice’ was finalised in an internal document and external brief.
2. To ensure that new staff do not reinvent the wheel on critical processes: new staff are trained in the agreed documented approach (such as how to best support government) and assigned a mentor for six months before refresher training is conducted. The documented approach (wedge) is updated as necessary.
3. To stimulate demand for learning: management adopted common indicators, including for deliverables such as supply chain studies, which stimulated all teams to improve their practice in targeted areas.

Knowledge is seen as core business for the SNV WASH programme, including a commitment to systematically reflect on, capture, structure and document knowledge.

Level 5: ‘Management-led’ KM – integrated management system

Level 5 organisations, the top level, adopt a systematic approach and cover all parts of the Plan-Do-Check-Act cycle. In these organisations, knowledge may not be explicitly articulated or disaggregated from usual practice because it is a normal part of the day-to-day work.

Level 5 ‘Management-led’ KM – Integrated Management System (IMS) can be simple, such as short paper-based ‘how to’ procedures, start out small in scope, and develop based on experience to best suit the team, programme or organisation’s needs. A simple starting point is an agreed process to jointly prioritise ‘risks’ to achieving the organisation’s strategy or programme objective, with a plan to address them collectively – perhaps one per year. Along with a recommended agenda for key meetings at various levels, to facilitate improved information flow, reflection, and review of actions linked to lessons learned, and a document management guide so team members can find the latest document easily. A more comprehensive system could include a site strategy (ideally less than one page), prioritisation process, plan (with clear responsibilities), concise documentation of key information and processes (such as how to best support government), and a process to ‘Act’ (support transfer of lessons learned into change of practice), some of which may already exist.

By adopting the Plan-Do-Check-Act model and developing wedges to capture continual improvement, management will systematically address five of the six “barriers and enablers to learning” identified in Grant et al. (2016: p10). These are peer-to-peer learning, reflection processes, leadership, K&L duties identified in work-plans, and improved use of monitoring and evaluation data to improve processes. For the sixth “enabler to learning”, “time and funding” (ibid.), it is recommended to develop criteria for donors to consider incorporating into their funding or assessment criteria to encourage this approach. In addition, ‘management-led’ KM supports the information flow between research, policy and local teams, and hand-over to new team-members, all while empowering teams to capture site-specific variability and explore innovative solutions.

The definition of level 5, ‘Management-led’ – IMS is the result of the authors’ direct experience. The author used a ‘bottom-up’ IMS on Sydney Water Corporation’s sewage treatment plants, which incorporated quality, environment and safety in a ‘whole of business’ approach, and was accredited to the International Standards Organisation (ISO) environmental standard ISO14001. This IMS resulted in remote self-empowered teams managing a variable process. The IMS covered policy, planning, implementation and operation, checking and corrective action, and IMS review in a continual improvement cycle. Note that the latest quality standard (ISO9001-2015) includes a dedicated clause for knowledge. The author used a similar, though simpler and not accredited, approach when leading a WASH team and later as WASH Cluster Coordinator to strengthen development and humanitarian response outcomes. For example, the system developed in the complex context of Somalia’s famine response in 2010-12 included a process to select and address cluster-wide gaps, and to empower Somali NGOs leading isolated sub-national clusters. It was recognized as global good practice for knowledge management and information sharing (Harries, Guerrero & Igarashi, 2012).

This paper promotes the new category of ‘management-led’ KM to facilitate discussion and implementation by managers and leaders. A more detailed framework and system for ‘management-led’ KM - IMS with examples is being developed, drawing on proven approaches used by organisations both within and outside development and humanitarian response which work for people at all levels. Criteria for donors and investors are also being planned to encourage organisations to adopt this approach towards better outcomes.

Conclusion

The ‘management-led’ KM framework presented in this paper should be applied to improve the effectiveness, efficiency and sustainability of WASH programmes. It draws from existing literature and direct experience in different sector contexts. Adopting this more structured and accountable process for managing knowledge should provide a solid foundation for teams to work in a more evidence based way. The ‘management-led’ KM framework reduces the need for teams to ‘re-invent the wheel’, and sees teams delivering more than the sum of their parts and maximising the use of resources.

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