KNOWLEDGE MANAGEMENT AT THE SOUTH AFRICAN CANE GROWERS ASSOCIATION

Sub Theme: Knowledge And Information

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Abstract:

The South African Cane Growers Association has served growers since 1927, and has accumulated a wealth of industry knowledge and information. However, increasingly competitive environments and the pace of technology have made it evident that the active management of knowledge and information is needed. This paper outlines the Association's initial learnings in establishing a knowledge and information management (KM) department, highlighting key lessons learned. A KM Strategy is essential to determine how the KM program can inform best serve the organisation's objectives. Being a broad discipline, the KM program needs to involve all aspects of the organisation, and given its long lifecycle its character may change from one year to the next as its focus moves from one issue to the next. The most important lesson learned is that knowledge is more than a material asset to be stored and moved around, but resides in the creative and adaptive capabilities of staff, their relationships with other stakeholders, and the prevailing organisational culture. An organisation needs to carefully consider what it is doing and how it does it, and consider whether it can do it better.

Keywords*: knowledge management, information management, innovation*

1. Introduction

The South African Cane Growers Association has represented the country's sugar cane farmers since 1927. The Association is a non-profit company that is financed by a statutory levy against each ton of sugar cane produced in South Africa. It currently has a staff complement of 44 persons across departments comprising of industrial affairs, economic services, regional services, grower sustainability, communications, knowledge management and finance and administration. The largest department is regional services, comprising of 30 employees in 10 regional offices spread throughout the cane growing region, which covers a range of 900 kilometres in the east of South Africa.

Much of the industry's history is embedded in the Association, and every year new

projects, agreements, resolutions and other activities are written into that history. The increased pace of technology, the threat of losing knowledge embodied in retiring staff, and increasing challenges both globally and domestically has led the Association to realise the opportunities implicit in more active management and leveraging of our knowledge and information assets, as well as the potential costs of not doing so.

To this end, in late-2014 Association established a Knowledge and Information Management (KM) department in the organisation and set about formulating a Strategy to guide KM activities. The Association has found that KM cannot be contained in a single initiative, but starts at a strategic level before manifesting at operational and technical levels as a number of inter-related projects. Much effort expended at the initial stages involved laying the groundwork for the more innovative and value-adding projects to follow. This paper gives a brief overview of what the Association has learned about KM in the intervening two years. It is hoped that this provides a useful case study that provides some insights to other organisations embarking on such an initiative.

2. The Association's first steps in KM

Knowledge management is an emerging field that grew to prominence in the 1990s. Being relatively new, it is an acknowledged difficulty that its boundaries remain poorly defined. In practice it often digresses in a single direction such I.T. management, library management, skills development and transfer (HR management), or intellectual property management. However, while KM may capitalise on competencies in these areas, as an activity it is distinct from the sum of its parts and has a wholly different objective than any one of these components. Where I.T. or HR may seek to manage the medium (often taking the strategic purpose of the organisation as given), KM is an outcomes-based activity that seeks to interpret the strategic intent of the organisation in constructing a programme of work to fulfil and enhance that intent.

In seeking to improve its understanding of KM as well as its capabilities, the Association enrolled a staff member in postgraduate knowledge and information systems management studies at the Centre for Knowledge Dynamics and Decision Making at University of Stellenbosch. The KM field has many perspectives and is constantly evolving, as are related fields such as systems theory and business management practices. The Association has found the perspective presented in the second edition of Newell, Robert, Scarborough and Swan's 'Managing Knowledge Work and Innovation' (2nd Edition) to be the most relevant.

Newell et al.'s work provides a good overview of how KM thinking has evolved over

time and given rise to different schools of thought. Newell et al.'s book culminates in the lesson that KM is not just about exploitation through codification and sharing, but also about exploration through innovation and integrating new/different knowledge (Newell et al., 2009: 231).

Newell et al. show how early proponents of KM typically took a 'structural' view of knowledge. Knowledge was seen as something material – it could be owned, stored and transferred. It was later that the 'process' and 'practice' perspectives on KM emerged, which characterised knowledge as being a practice (not thing) that is highly context specific. This means that the effective application of knowledge will differ depending on your environment, political considerations, changing priorities (e.g., speed versus accuracy), and other highly variable, subjective factors. This means that 'stored knowledge' that has been stripped of its context has limited value, and that in the face of new circumstances and priorities knowledge workers are still central to interpreting and applying it in a useful way.

Therefore, although it was originally envisaged that the organisation's KM functions would involve the consolidation, optimisation and re-deployment of existing knowledge, the Association has subsequently learned that, rather than simply focusing on our 'stocks' of knowledge, there is substantial value to be gained from redefining the nature of our knowledge work and how we practise it.

3. Knowledge Management in farming terms

Knowledge and information management in an organisation is not unlike growing sugar cane. To resort to a tried-and-tested metaphor, there are activities analogous with field preparation and planting, the growing season, pest control, harvesting and logistics. This analogy has been extended upon in the paragraphs below.

Field preparation

There is no escaping the fact that effective KM depends on many interrelated factors, such as capable and willing staff, effective communication and training channels, appropriate infrastructure and equipment, systems properly set up and supported by capable suppliers, and above all a plan to work to. Some of these are central to KM, while others are related. Nonetheless, a lack of attention to any one of these areas can limit the effectiveness of all the others, and could lock the organisation into a financial year where no progress is made.

The Association's KM activities started with Strategy formulation to determine the overall objective, the problem and opportunities, and the projects that needed to be

undertaken in the short- and long-term. While the KM project portfolio should aim to create value for stakeholders, in the initial stages it is to be expected that most projects will consist of corrective actions and problem solving to get in-line with the new long-term vision. At this juncture it is also worth noting that the initial Strategy cannot be cast in stone. Planning should not be undertaken to the extent of imaginary accuracy, or excessive time (and cost) spent over-specifying the project. During the year problems as well as opportunities will be identified, timeframes will shift and priorities may change. This can result in parts of the plan changing or becoming redundant.

Strategy formulation should include discussions with suppliers, always with an eye on budget formulation. For some bigger line items (like implementing a new system), the initial project scoping and planning may also go hand-in-hand with budgeting. The selection of appropriate suppliers cannot be overemphasised, and they should be screened in terms of technical capabilities as well as their commitment to the business relationship. For the Association, this ended up precluding larger providers in favour of smaller, more flexible suppliers that were willing to fit our needs to our available resources in order to help make the project work.

The growing season

All farming has a distinct period where the growth takes place and the real value is produced. It is easy for KM activities to focus on preparations and problem-solving in the initial stages. In Dr Alex Osterwalder's book entitled ‘Value Proposition Design’, he refers to activities as ‘pain relievers’ versus ‘gain creators’ (Osterwalder et al., 2014). The ultimate focus of KM must be on adding value by either exploiting the organisations knowledge and information more effectively, or by adding new knowledge through exploration, rather than just addressing convenience within the organisation. For example, if a document management system is implemented, it must be with a view to leveraging those documents instead of just being a filing solution.

In the category of exploiting resources, a simple first step in this regard is the digitising of paper records. An organisation’s paper records are practically useless unless they can be searched for specific content. By scanning documents into a digital library these old records are organised, referenced and ideally searchable, and can present a useful resource to staff. In situations where digitising is not possible (for example, where Minute Books need to be maintained in hard copy), digital indexing is a useful alternative that at least notes the existence and contents of these records in a searchable system.

Exploiting knowledge resources through codification is also possible where relatively

static knowledge is embedded in specific staff members. The Association is looking at doing this by developing an online training facility whereby knowledgeable staff members (typically managers) can develop training on specific issues such as the Best Practices around business case formulation, lease agreement review, survey administration etc. This requires incentivising the relevant staff across all the regional offices to take this online training and literally learn from the best, in our specific context. This can contribute to organisational skills transfer objectives to facilitate the organisation in meeting targets set by the Department of Labour. Online training also provides a useful tool in terms of accountability, where the system can record completed trainings (e.g., after taking the online quiz), so that there is evidence that important issues have been addressed and are understood by relevant staff members.

In terms of innovation and exploration, the Association is working with its Innovations Group to change how we do what we do. Data gathering and grower communications has previously been undertaken using traditional postal methods, along with conventional websites and forays into technologies such as D6 communicator. Unfortunately, given that roughly 18,800 of South Africa's 20,500 growers are small-scale, generally rural growers, these methods are no longer effective nor sufficiently representative. The advent of the mobile phone has opened new opportunities to reach growers from all walks of life. By 2014, mobile phone penetration in South Africa was already estimated at 133%[1] (this means 33% more mobile phones than people). More recent figures cited by Samsung in September 2016 indicate that smartphone penetration in South Africa is somewhere between 37-45%[2]. By gaining a better understanding of grower information flows and channelling these into a mobile application, the Association hopes to launch an App in mid-2016 that will provide growers with real-time information, analysis, advice and guidance, and above all a valuable direct communications link between the Association and its constituents.

However, not all innovations and efficiencies need to be derived from technological advancements. In 2016, management restructured the way staff were working to enable them to work smarter instead of harder, and in doing so increase the potential for their own development and progression. In previous years, as the scope of the Association's

[1] http://www.htxt.co.za/2014/10/23/south-africas-mobile-penetration-is-133/ Date accessed: 08 February 2017

[2] https://mybroadband.co.za/news/smartphones/180894-smartphone-penetration-in-south-africa-hits-major-milestone.html Date accessed: 08 February 2017

activities increased growers came to expect regional staff in each area to be facilitate in addressing all manner of industry issues across diverse subjects. This resulted in regional staff becoming the proverbial 'jack-of-all-trades but master of none', with attendant frustration and high workloads. Regional staff have subsequently been allowed to select specialist areas in which they are now developing into the organisational expert in that particular area.

Regional staff specialise in subject areas like coastal agricultural economics, enterprise development, financial services and products, innovation, land reform, mechanisation, restitution, sustainable farming, transport, and water and electricity affairs. Specialists tend to be located in areas where their specific specialisation is a key concern for growers, for example the land reform specialist is from an area where the organisation has a lot of experience with land reform growers. Now staff can move between areas to bring more insightful assistance that has a greater effect in terms of addressing grower issues.

This focus also gives regional staff a further avenue for career development, creates a true subject expert within the organisation, and helps to reduce workload and frustration. While this was not expressly intended as a KM initiative, it is representative of many KM ideals – low cost, low tech, high impact and one where all stakeholders win.

Pest and disease control

Pest control does not add value to a crop, but a lack of pest control can see it destroyed. To reiterate Osterwalder's analogy, these are the pain-reliever activities intrinsic to KM. Analogous to burning the trash after a harvest or monitoring soil health, information accumulates that needs to either be filed or confidentially destroyed, reports run on staff activity and systems health, and a high level of governance maintained. Activities undertaken in this regard include implementing an information life-cycle, monitoring employee behaviours, and ensuring that governance guidelines and legislative requirements are followed.

Starting with governance and legislation, this year most of the world will be ensuring they are in-line with the European Union's General Data Protection Regulation (GDPR) and the any knock-off effects it may have in terms of domestic legislation. In the case of South Africa, GDPR will be concurrent with the launching of the Protection of Personal Information (POPI) Act, which approximates the GDPR requirements but also includes juristic persons in its mandate. While privacy legislation has been greeted with some

anxiety by business, informed opinion tends to highlight that this is merely a formalisation of what is considered in many cases to be Best Practice, is by no means onerous, and in fact presents an opportunity for businesses to improve good governance implementation and do some spring cleaning in terms of their information, systems and processes. Take a moment to reflect on what your organisation is really doing, brief your staff and streamline your processes, dispose of unnecessary information, and an organisation actually stands to make efficiency gains, reduce costs, and enhance the professionalism and sense of purpose that comes from knowing that you are taking the proper approach to a clear objective.

This follows through to document management, be it digital or hardcopy. Following an information audit the organisation can clarify what it should be keeping and what can be confidentially disposed of. Establish an information lifecycle that determines how long each type of information should be held before it gets removed into long-term archiving or is destroyed. Don't let any staff member create filing or submit (dump) paper in the Archives without first appending key information such as the nature of the information, the information owner (department), whether it has been captured electronically, and for how long it needs to be kept. Incidentally, make sure they also remove all metal bindings and plastic sleeves before handing it over so that you can are not stuck with this job when the time comes to get it shredded.

The last item worth mentioning is monitoring of employee behaviours. Depending on your platform, tools are generally available to ensure that staff are keeping their information in the prescribed places and submitting their tickets to helpdesk if they have problems. If someone keeps forgetting best practice, make sure you have an online training module that you can direct them back to. This will help to identify staff that may need additional training, as well as situations where your systems or suppliers are causing a bottleneck.

It must be acknowledged that some of these activities are arguably closer to I.T. management than Knowledge and Information Management, but KM provides that essential interface between the strategic direction coming from the top and the technical operations being carried out at the operational level and by suppliers. KM involves setting up a system that ultimately contributes to the company culture and the competitive advantage over other firms in the same space. This means that all components in the system need to be monitored and maintained if the system is to bear fruit.

Harvesting

In traditional farming, the culmination of every farming cycle is to harvest what has matured over the 'growing season' while keeping enough back to replant for the next crop. Similarly, KM needs to deliver value to users, but also ensure that work done during the year contributes to an overall stock of intellectual capital that can be re-used.

In his book 'Harvesting intellectual capital', Andrew Sherman refers to research undertaken by Professor Baruch Lev at NYU Stern School into companies in the Standard & Poor's 500 list. Baruch found that these companies are generally valued at six times their book value (Sherman, 2012: 6), meaning that their assets only contribute around 10-15% of their book value. The point being made here is that in successful companies, the value of intangible assets and human capital far outweigh tangible assets.

However, a more accurate assessment of an organisation's value may be reflected in a fundamental statement by economist Sydney Winter, who observed that organisations are simply groups of people that 'know how to do things' (Davenport & Prusak, 2000: xxii). This suggests that it is the capability of people to leverage on experience as well as specialised industry knowledge and relationships that add the real value in an organisation, rather than the assets.

This means that you need to ensure that information, lessons learned and knowledge gained are ploughed back into your organisation or - more accurately - into your staff to enable the next round of growth.

Getting it to market

The final step in any farming endeavour are the storage and logistics activities implicit in getting your produce to the customer. For a lot of produce, shelf-life is limited and storage is synonymous with logistics (i.e., refrigerated trucking). In sugar cane farming this manifests in harvest-to-crush delay, as the sucrose content starts to decline following the cutting of the cane, and cane needs to get to the mill as fast as possible.

KM initiatives face similar challenges. Knowledge and information needs a vehicle to get to where it can add value. Earlier generations of knowledge managers saw electronic document repositories as a way of achieving this, while later proponents emphasised knowledge exchange through social interaction.

It has been the experience of the SA Canegrowers Association that both methods are needed in equal measures. Digital platforms record and distribute information and Best Practice to staff, but ultimately it is your staff that will carry that knowledge to the growers and see to it applied to meeting their needs. Ensuring that the knowledge and

information that your staff have is fresh and that they have the skills to keep it up-to-date is the final critical step. This is the equivalent of making sure that your driver has a working refrigeration unit and GPS on his truck, and the difference between delivering value or a truckload of perished produce.

Technologies facilitating this are document management systems and online training platforms for staff, as well as websites and mobile applications for interfacing with customers. However, these systems need to designed along requirements gathered through stakeholder engagement and following professional advice, and this relies on the capabilities and the insights of your staff and your suppliers. There is no getting away from the human element implicit in knowledge work.

4. Conclusion

The story that this paper is telling is trying to make three main points. First, KM is a broad discipline that interacts with and will affect all aspects of the organisation. Second, KM programs have a long life-cycle that will change the character of a KM program from one year to the next. Third, the keystone of all knowledge activities are the people who adapt that knowledge to meet ever changing priorities and environmental conditions. It is not a technology or a body of documentation, but the people who embody and practice the prevailing organisational culture.

The KM journey at the SA Canegrowers Association is far from complete. What the Association has learned so far has made it clear to us that once knowledge has been created, it needs to be converted to intellectual capital so that it can be more effectively leveraged and protected. Our initial investigations show that this is not just about filing patents but also about establishing a culture where innovation, teamwork, and business relationships are high on the agenda. The Association has identified intellectual property management as one of its key areas for improvement in 2017.

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