

KNOWLEDGE MANAGEMENT IN AN SME

Brian Delahaye

ABSTRACT

This paper examines the knowledge management processes used in a small-to-medium enterprise (SME). The SME, Pacific Lifestyle Publishing, is a highly successful Australian publishing company that produces nine narrow-market niche magazines. Underpinning the successful management of knowledge in PLP was a unique organisational culture that had a dual focus. Further, at the more obvious level, PLP used a number of ordinary management processes (Stacey 1996), such as strategic management, selection and control systems, to manage and proselytise its core competencies. In addition, PLP encouraged creativity, both in its day-to-day activities and also in identifying and implementing new strategic opportunities. To manage this creativity, PLP used extraordinary management processes (Stacey 1996), such as self organising groups and a unique five step process to introduce new knowledge into the organisation. Overall, the organisation successfully managed its day-to-day activities, the creativity of staff and its culture to achieve what Stacey (2001) called a state of bounded instability. Achieving this state of bounded instability was the foundation of the success at PLP.

Key words: knowledge management, workplace learning, human resource development

INTRODUCTION

A small-to-medium sized enterprise (SME) is usually defined as one that has sales of less than \$2 million annually and has fewer than 100 employees. Up to 90% of businesses in Australia and New Zealand are small businesses (Schermerhorn, Campling, Poole & Wiesner 2003). Schermerhorn et al. (2003, p. 251) go on to report that as many as 60 to 80 percent of new businesses fail in their first five years of operation. So a SME that has survived for more than five years is most probably doing something right, amongst them undertaking a viable approach to managing knowledge.

A SME offers two advantages in initiating research on knowledge management. As Davidson and Griffin (2003) comment, small businesses have contributed many innovative ideas and technological breakthroughs to our society. Further, decisions in a SME are often enacted within a shorter time frame than in larger organisations.

As Delahaye (2005) points out, it was once held that the two most basic resources available to an organisation were money and time and that one could be exchanged for the other. Unfortunately, though, there is no simple exchange equation between money and time, on the one hand, and knowledge on the other, as knowledge has to be created, learned and maintained not simply purchased and maintained (Delahaye 2005: 423). Further, knowledge is the primary resource for individuals, organisations and the economy (Drucker 1995). Writers such as Delahaye (2003) and Sveiby (1997) suggest that knowledge is a unique

Brain Delahaye (email: b.delahaye@qut.edu.au) is Associate Professor, School of Learning and Professional Studies, Queensland University of Technology, Australia.

resource because it has no law of diminishing returns, grows from sharing and can be created by anyone.

This paper reports on an investigation into the knowledge management practices in an SME.

THE ORGANISATION

A case study was conducted on a small-to-medium sized organisation called Pacific Lifestyle Publishing. Pacific Lifestyle Publishing (PLP) is a highly successful Australian publishing company that produces nine narrow-market niche magazines. Its stable of vibrant, high quality life style publications covers such interests as surfing, snow sports, motocross sports, skating and young women's leisure activities. The magazines have readers across Australia, New Zealand, USA, UK, South Africa, Japan, Malaysia, Singapore and Peru with readership numbers from 40 000 to 200 000 for each issue of each magazine. The majority of readers are under 25 years old—except for one surfing magazine, 90% of whose readers are over 25. The founding magazine, on surfing, commenced in 1987.

PLP is located on the top floor of a modern office building in a coastal location in eastern Australia, less than half a kilometre from the famous surfing beaches of the Pacific Ocean. PLP employs over 60 staff, the majority in the main office on the Australian east coast location with sales offices in two other capital cities and a production and sales office for a surfing magazine in New Zealand. The main office is divided into six teams—editorial, design, production, sales, marketing and administration—each with a director in charge. There is also a circulation manager who is responsible for the magazines reaching the readers.

RESEARCH METHODOLOGY

To gather data on the case study, Pacific Lifestyle Publishing, organisational records were analysed and a total of 12 interviews were conducted. Those interviewed included the managing director, five directors and six staff. The interviews lasted from 1½ to 2 hours

The analysis of the organisational records and the interview questions were based on a model of knowledge management designed by Delahaye (2002; 2003; 2005). This model suggests that any organisation has two interacting systems—the formal system, identified by Stacey (1996) as the legitimate system and the informal system, which Stacey (1996) calls the shadow system.

The **legitimate system** uses negative feedback loops and single-loop learning to maintain the status quo. Negative feedback loops dampen any behaviour that is seen as aberrant by the legitimate system (Stacey 2001). Single-loop learning passes on current knowledge without challenging the veracity or usefulness of the knowledge (Argyris 1992). The role of the legitimate system is to ensure that the organisation survives the immediate future by the efficient use of the organisation's resources. The **shadow system**, on the other hand, provides the organisation with the energy, by creating and importing knowledge, which will ensure the organisation's long-term future. The shadow system is predicated on positive feedback loops and double-loop learning. Positive feedback loops enhance behaviour and increase energy (Stacey 2001). Double-loop learning occurs where an individual or a group challenges the underlying values of an idea, assumption or concept (Argyris 1992).

The role of the legitimate system is to pull the organisation towards a state of stability or equilibrium. It is in that state of equilibrium that the organisation is at its most efficient. Unfortunately, if the organisation remains at the stage of total equilibrium for a period of time, the organisation will stagnate, become toxic and slowly poison itself. The shadow system, however, pulls the organisation towards chaos. It is in the state of chaos that organisms are at their most creative, although at this time the organism is more likely to destroy itself. In the twenty-first century, then, managers have to manage the legitimate system and the shadow system so the organisation maintains a state of bounded instability. A state of **bounded instability** means that the organisation hovers between equilibrium and chaos, thus enhancing the strengths of both the legitimate system and the shadow system.

The model of knowledge management (Delahaye 2002; 2003; 2005) proposes further that the management process used by the legitimate system to manage knowledge are strategic planning, control systems, selection, performance appraisal and the four stages of human resource development (HRD). The energy of the shadow system, though, comes from **self organising groups** (SOGs). A SOG occurs when two or more people come together over some mutual interest. In organisations, the most readily recognised SOGs are the ‘whinge and bitch’ groups. Of course not all SOGs in organisations are ‘whinge and bitch’ groups. Many, perhaps even the majority, are initiated by two or more members coming together over an exciting idea. Often this idea, because the members only have the organisation in common, is aimed at improving some aspect of the organisation. From the point of view of the shadow system, such bodies are hotbeds of learning as members recount difficulties experienced and challenges overcome. Providing unobtrusive support for these groups can pay handsome dividends for the organisation.

The shadow system also gains energy from what Earl (1997) calls **enhancement systems**. There are four knowledge enhancement systems. Knowledge configurations capture, store and make available information on any new experience. In addition to storing data, knowledge configurations provide tools that will allow an investigator to analyse the data. Knowledge networks are important in knowledge capture, knowledge building and knowledge dissemination (Earl 1997) and can be classified as either external or internal. Knowledge workers are critical to the success of any knowledge management system, not only for their unique and extensive knowledge base but also their ability to learn. In today’s modern organisation the vast majority of workers are knowledge workers. Finally, the organisation needs culture that respects learning and, in particular, accepts that failure is merely the first step in the learning cycle.

This model of knowledge management suggested by Delahaye (2002; 2003; 2005), then, was used to design the questions in the interviews. For example, questions were asked on the strategic planning process, selection, performance appraisal, control systems and the four stages of HRD. For the shadow system, evidence was elicited for the existence of SOGs, how these SOGs operated and how the new ideas were incorporated into the legitimate system.

THE FINDINGS

Overall, the investigation appeared to provide quite strong support for the model of knowledge management proposed by Delahaye (2002; 2003; 2004). There was evidence that most of the management processes in the legitimate system, based on negative feedback loops, were operating as expected. The shadow system was particularly strong with several

SOGs producing tangible results. There were two deviations to the model. The first was the lack of a formal HRD process based on the four stages of needs analysis, design, implementation and evaluation. Rather, the development of staff occurred through a consistent workplace learning process. Secondly, the unique and durable organisational culture contributed strongly to the organisation achieving a state of bounded instability.

The Legitimate System

The basis for the negative feedback loops in the legitimate system of PLP was the heavy emphasis on meeting publication deadlines. The word 'deadlines' was raised in every interview and was emphasised in a variety of organisational records, such as the orientation booklet given to new staff members.

Strategic Planning

Just under four years ago, the company held a two day strategic planning seminar with the director and managers at a location away from the main office. The seminar was facilitated by an outside facilitator from Business Improvement Australia, with an aim to create a strategic plan for the next five years. This seminar undertook the usual contemporary strategic planning processes—an analysis of the external environment (seen as fairly volatile), a SWOT analysis, defined a mission statement and the overall strategy. The overall strategy was what Miles and Snow (1984) would call an analyser strategy—growing, using a cautious approach, with a preference to seek expansion in markets where the organisation has a growing understanding. This analyser strategy would suit the fairly volatile external environment that was identified in the one day strategic planning seminar.

When describing the model of knowledge management, Delahaye (2003) suggests that the strategic planning process contributes to the management of knowledge in two ways. Firstly, the process should confirm the core knowledge that the organisation sees as important. For PLP, this core knowledge was seen as:

- ensuring that customers' needs are met through high levels of competency in all technical aspects of the tasks needed to publish the magazines;
- making all efforts to exceed customers' expectations; and
- having uncompromising integrity and maintaining the highest personal standards of ethical behaviour in everything we do.

Interestingly, two other sets of core knowledge were seen as important. The first of these was for staff to relate to each other in a respectful and friendly way. The second was to have fun and do great things. As will be seen in the discussion under culture, these two sets of core knowledge were evident in the organisational records and in the interviews.

The second contribution of strategic planning to knowledge management is its role in supplying new knowledge. Again, this was seen at PLP. One of their main competitors had attached a DVD to a special edition of their magazine. On seeing the success of this new idea, PLP decided to investigate the possibilities. Using a logical examination based loosely on Force Field Analysis the management team found a viable and cost-neutral option to include a DVD on future editions of their star surfing magazine. However, for a successful outcome, new knowledge had to be imported. Some of this new knowledge came from a search of literature and from examining alternative types of equipment. Further new knowledge was imported through the selection of a new member of staff. The first edition of the magazine

with a DVD attached was successfully launched at the beginning of 2004, with sales for that edition increasing significantly.

Selection

The selection process is another HRM process that helps the legitimate system to manage its knowledge capital. PLP frequently used the selection process in the traditional manner by undertaking a job analysis to determine what knowledge that currently exists needs to be replicated by the new entrant. The resultant job specification was used appropriately in all selections and thereby ensured that new entrants continued to use the core knowledge that the organisation considered desirable and important.

However, in the DVD attachment publication described in the strategic planning above, the selection process was also used in what Delahaye (2005) identifies as the second purpose of selection in managing knowledge. New knowledge was imported by selecting a staff member who not only knew how to use a video camera and edit a video tape, but who also knew how to burn DVDs with the new equipment. PLP also imported new knowledge by using the selection process to introduce a new marketing manager to initiate a more structured and disciplined approach to marketing.

Control Systems

The administration team produced reports that formed the basis of the control systems for the company. The majority of reports—financial, advertising sales, subscriptions and distribution sales—are centred on each of the magazines with monthly budgets providing the pre-determined standard and then monthly reports on cash flows, income and expenditure and profit and loss providing the data collection and comparison steps of the control systems. As the financial director commented, ‘Everything has a control, everything has to balance back’. In addition, all managers have specific control systems based on the technical standards of their profession. For example, the manager of the design team reviews each edition of each magazine with the staff responsible, with discussions ranging from the identification of minor flaws to ways of improving further the quality of design presentations.

These control systems are classic negative feedback loops with a pre-determined standard and corrective action to return any aberrant result to the status quo. The corrective action is usually about re-applying already known knowledge, such as decreasing sales caused by advertisers not being serviced, or applying design principles more rigorously.

Performance Appraisal

It was company policy at PLP that annual reviews of all salaries and wages were to be carried out at the end of each financial year. The policy is that the review is initiated by a written application by the individual staff member and some staff members reported that this was the approach. In practice, though, several of the managers initiate the process. For example, one manager sent an e-mail to team members asking for their comments on such topics as ‘How have you gone over the last 12 months?’, ‘What are your strengths?’, ‘What do you want to improve on?’ and ‘How do you see your job unfolding over the next 12 months?’. For other managers, the exercise combines a significant developmental purpose. One manager pointed out, ‘If I have been doing my job properly during the year, what I put in the performance review should not be a surprise’. Most commonly, it appears that appraisals occur on an ‘as needed’ approach. As one manager pointed out, ‘It depends on how experienced they are in the job’.

Whether for administrative or development reasons, it was evident that the performance appraisals at PLP play a significant part in ensuring that current valuable core competencies are continually practiced by all members of staff.

Human Resource Development

The formal steps of HRD—needs analysis, design, implementation and evaluation—were not particularly evident in PLP, with most learning experiences being on-site. Indeed, one manager commented, ‘These off-site training seminars don’t seem to work all that often. They seem to miss the mark or are not aimed at our needs specifically enough’.

As PLP is only a small-to-medium sized organisation, such an emphasis on workplace learning is, most probably, not surprising. What was interesting were the learning processes used. Firstly, most managers and staff referred to the job description when asked how they trained other staff. Each position had a job description and this document represented what Delahaye (2005) refers to as a ‘knowledge silo’—that is, the job description contained knowledge that the organisation has designated as important core knowledge. The job descriptions, then, are used as a basis for single loop learning.

The second interesting observation was the process that one manager articulated when asked how staff were trained and developed. This process consisted of the following six steps (comments in brackets indicate the principle/theory of learning used):

1. Location. ‘Being there physically in the room with my team’ (indirect guidance, a step in the workplace curriculum model—see Billett 2001)
2. Leading by example. ‘The strength is not in the structures and the controls but by them seeing my passion. The magazine has to really be worthy of being a PLP product.’ (Modelling.)
3. Feedback and critiquing. ‘We look at the product while it is in progress and also at the end and constantly look for ways to improve it. However long it takes I will go through it with them’. (The principle of learning called feedback—see DeSimone & Harris 2002.)
4. Pull back. ‘Recognise what mistakes are worth letting go through. If they are always saved they will not have the full learning experience.’ (Fading as part of ‘diminishing support’ in the workplace curriculum—see Billett 2001.)
5. Give them more responsibility so they will grow. ‘At some point in their development, they only come to me when they need something to check. We have little ‘catch ups’ and talk about what they have learnt.’ (Scaffolding, a step in the workplace curriculum model—see Billett 2001.)
6. Encouragement, optimism, humour. ‘Creating an atmosphere of ‘up-ness’. Everyone works long hours, so I encourage them to go out or go surfing. They deserve my faith in their work ethic.’ (Behaviour modification—see DeSimone & Harris 2002.)

Thirdly, while acknowledging that job descriptions are used for training, another staff member said, 'We are often thrown in the deep end, big time. It may not be the correct way, but we learn so much. Of course, PLP is big on asking for help. So any problems, ask for help and people are always willing to help you find answers'. The important issue here is that the learner is surrounded by experienced co-workers—again 'indirect guidance', one of the steps in workplace curriculum (see Billett 2001).

The fourth interesting observation was the learning process described by another staff member when confronted with a need to use new computer/digital technology to produce a new product for the company. This learning process is very similar to the small business learning model articulated by Billett, Hernon-Tinning and Ehrich (2003). 'Basically, I just jump in and do it first. I play around, try to see what works and what doesn't. I know what I need to produce, I have already spoken to my manager about that. When I hit a problem, I go to my manager or to [another team member]. He knows computing as well, we bounce off each other quite a lot. Then I go back and play around some more and eventually I work it out'.

SUMMARY

PLP, then, makes good use of contemporary management processes in the legitimate system to manage its knowledge capital. The organisation uses strategic planning, selection, control systems and performance as negative feedback loops and as a basis for single loop learning. The four stages of HRD, though, are not used in a formal sense. Rather, managers use workplace learning with an approach very similar to the workplace curriculum model of Billett (2001).

The Shadow System

PLP showed evidence of a very strong shadow system. Indeed the organisational culture encouraged a dynamic fun and creative ethic. Part of the organisation's published strategic philosophy was to 'have fun and do great things'. In the orientation booklet that is given to every new employee, staff are exhorted '...all our offices are within a stone's throw of the beach and the ocean! Get out there at lunch or something! There are post-exercise hot showers in both the male and female toilets which staff are welcome to use, preferably one at a time'. When asked to describe the culture at PLP, all staff interviewed frequently used the words relaxed, passionate, energetic, high achieving, friendly, family atmosphere and open door policy. As one staff member commented, 'We look out for each other and a lot of us hang out together at the weekends'. Another commented, 'There is no time keeping. You can go out surfing. But on the other hand, you don't take advantage. You would be letting everyone down'.

The importance of people and the team culture at PLP is also emphasised throughout the orientation booklet with phrases such as 'Each and every employee is a valued contributor to the team' and 'Unlike other, larger businesses, every individual here has a real impact on the company's performance' and 'respect your colleagues needs'. In all the word 'team' is used 15 times throughout the orientation book. Further evidence of this team culture was gathered during the interviews, with every staff member using the word 'team' several times.

Self Organising Groups

With this organisational culture, it was not surprising to find that self organising groups (SOGs) were common. Two such groups had resulted in two new magazines being initiated and published. The creative processes in the two SOGs were classic examples of the progression and development of new ideas, as outlined by Delahaye (2005). Both groups commenced as informal meetings, one over a couple of bottles of red wine on a veranda in the home of one of the members and the other through a series of telephone calls and meetings outside the workplace. Both groups received positive feedback loops in the form of encouragement from a senior manager.

Enhancing systems

There was also evidence of the four enhancing systems of Earl (1997). Knowledge capture systems were in place. For example, each magazine conducted a survey of readers each year, with a high percentage of returns encouraged by the offering of expensive prizes. The sales team had also just developed a client management template that gathered data on all aspects of every magazine that would be of interest to advertisers, and had also gathered the same data on all competitors. All staff were treated as knowledge workers. 'I want everyone to have a passion for the subject and a pride in the product' the managing director said. The internal networks were very strong and supported compellingly by the organisational team culture. The external networks were powerful for some of the staff—the contacts of the managing director and several managers and the contacts with the lifestyle culture by every staff member on the specific magazines. The external networks for the sales and marketing were less robust, with the managing director of the sales and marketing team recently resigning. Actions were being taken to fill this gap in the external networks. Finally, the organisational fully supported learning, as discussed previously.

Political Process

There was evidence of the SOGs using political processes to introduce new ideas to the organisation. For example, both groups involved in the two new magazines refined the ideas into a package that was considered to be acceptable for the management team's deliberations in that each report covered such topics as story types, reader market, advertisers, market numbers and expected percentage of the market and how the proposed magazine was differentiated from other magazines of its type. This was a good example of the political process of 'preparing the package'. Both groups discussed the idea with several managers to 'prepare the path' for the new idea. Both new magazines were successfully introduced in the second half of 2004.

The Embedding Process

The model of knowledge management, Delahaye (2002; 2003; 2005) suggests that to successfully manage knowledge the legitimate system needs a logical and rational process that embeds the new knowledge into the legitimate system, rather than automatically implementing defence mechanisms, such as branding new ideas as 'undiscussable' (Argyris 1992) or using committees as a means of quashing a new idea.

PLP had an excellent embedding process. At their fortnightly meetings, the management team used an 'Action Report Plan' designed by the operations and production director. The report consists of a series of pages and its importance lies in the way that the agenda manages the introduction of new knowledge into the organisation. It is easier to understand the agenda by examining the report from the back to the front:

- The final page is the 'Ideas' page. As new ideas are generated by staff, they are presented at the management team meeting. To be included the idea just has to be 'good'. The management team will include an idea even if it doesn't look as if it will be successful, as long as it is a 'good' idea. 'What I find is that once you put an idea on this page, no matter how irrelevant or inconceivable it may appear at that time, it starts to evolve' said the operations and production director. The new idea is then listed on the 'Ideas' page for further discussion, consideration and investigation by the management team.
- The fourth page lists 'Projects' that are under investigation. When a new idea passes the initial investigation by the management team 'tasks' related to a specific 'project' are allocated to various management team members in different departments. On bigger projects a project team, with accompanying budgets, is formed.
- 'Improvements', the third page, is basically the place for listing 'things that can be done better'—these are not 'ideas' but improvements to current work practices, environment, systems, resources. Improvements aren't always actioned with a date, but they stay on this page as a reminder of what should be improved. Again, as in the 'Ideas' sometimes, once an improvement is identified, it starts to organically move forward because people are conscious of it.
- The second page is 'Action Tasks'. This is a list of activities with target dates to ensure that a new operation or task will be instituted. For example, the publication date and pre-publication activities for the two new magazines to be launched this year are included here. This page ensures that the variety of tasks, which may be spread across several teams, are completed on time.
- The first page is titled 'Reminders and Follow-ups'. Details on this page come from two areas. Either they are added when a current procedure is not being carried out and needs to be put back on track (that is, made a habit again). Alternatively, they have evolved from a completed task or project. For example, a task such as 'Install back up system in satellite offices', once completed, will come off the Task Page and be added to Reminders and Follow-ups as 'Ensure Back Up procedure for satellite offices is being carried out', until such a time that the management team feels it is ingrained and accepted as a standard process of doing business.

In the meeting itself, the discussion on the Action Report Plan follows the reverse order of this description—that is, commencing with Reminders and Follow-ups and finishing with 'New Ideas'. As a means of managing knowledge this five stage process is an excellent means of auditing and embedding new ideas in the organisation.

Bounded Instability

The real strength of PLP was its ability to sustain a durable state of bounded instability. This was due, in no small part, to the unique and remarkable organisational culture. On the one hand, having fun (for example, being encouraged to go surfing, ride the motocross bike or whatever was an employee's passion), as well as a high regard for creativity, provided the positive feedback loops that energised the shadow system and encouraged continuous creativity. On the other hand, the second part of the organisational culture emphasised the importance of achieving the publishing deadlines. This emphasis on deadlines provided the

legitimate system's negative feedback loops with a pre-determined standard and became the classic dampening process that controlled the rampant nature of creativity. As one staff member said, 'We have to meet deadlines. Everyone is close and everyone knows if you are not going hard enough for the deadlines'.

The real genius of the organisational culture was its dual nature. It encouraged and rewarded creativity, but the emphasis on the 'deadlines' placed a boundary around the creativity energy that reined in the excitement that could have pushed the organisation over the edge and into chaos.

CONCLUSION

On the surface, PLP was the usual SME—it had identified a market niche and serviced this niche well. It has, however, been a successful and growing organisation for over 15 years, placing it in the top 20% of successful SMEs (Schermerhorn et al, 2003). The question posed was, 'How did knowledge management contribute to this success?'

Undoubtedly, PLP used the ordinary management processes (Stacey 1996) to manage its legitimate system effectively. The organisation had used a consultant over the last several years and these efforts were evident in the classical use of control systems, strategic planning, job analysis, and selection and performance appraisal. These processes became the basis of the legitimate system's role in managing the organisations knowledge. Specifically, current core competencies were identified and proselytised throughout the organisation. In addition, the strategic planning and selection were used to import new knowledge. In short, PLP's legitimate system was well managed.

Two other processes have most probably made PLP a fairly unique SME. The first of these was the use of extraordinary management. Self organising groups (SOGs) formed naturally and, when appropriate, these SOGs were encouraged. In addition, the organisation instituted a process that overtly examined and encouraged the creation of new knowledge. This process of encouraging the creation of new knowledge was based on the agenda of the fortnightly management meeting where new ideas were identified and, if found possibly viable, were then supported with resources. The agenda then ensured that the new ideas were constantly monitored, encouraged and ultimately, if found fully viable, were incorporated into the organisation.

The second process that made PLP a unique SME was its organisational culture. Its culture had a dual focus—one part encouraging creativity, and the second part, an emphasis on 'deadlines', ensuring that the creativity was converted into productivity rather than chaos.

Overall, then, this case study on Pacific Lifestyle Publishing, has emphasised the importance for an organisation to concentrate on three overlapping, but disparate, areas—the ability to manage appropriately the legitimate system, the shadow system and the interaction between the two systems in order to achieve a state of bounded instability.

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