

Conducting a knowledge audit at a South African retail bank

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Purpose: The purpose of the article was to present the methodology followed and findings of a knowledge audit at a South African retail bank.

Design/methodology/approach: The article addresses the following research question: 'What methodology should be followed when conducting a knowledge audit for a retail bank?' The audit followed a mixed method research methodology. A questionnaire was emailed to a sample of employees to determine their knowledge requirements and 30 senior managers were interviewed in order to obtain a strategic perspective on the knowledge management requirements of the bank.

Findings: The commitment to knowledge management was generally positive, but it varies across business units. The bank has not defined which knowledge areas are critical in order to improve its current or future performance. Specific knowledge gaps were identified and a knowledge map was compiled to indicate knowledge flow in the bank.

Implications: The article gives a detailed description of the methodology when conducting the knowledge audit. The knowledge audit attempted to address the most critical knowledge requirements of a South African retail bank. The audit helped to make the knowledge in the bank visible and helped the bank to understand the value and contribution of knowledge to the organisational performance.

Introduction

Knowledge increasingly occupies a strategic role in most enterprises. High levels of uncertainty characterise the 'new world of business' and enterprises need to reinvent themselves to adapt to this changing environment (Paramasivan 2003:498). As South Africa moves to a knowledge economy, the strategic focus is on intangible assets and senior management of enterprises realise that they must develop better techniques to manage this vital asset (Schwikkard & Du Toit 2004:104).

Since 1990 the South African banking industry has gone through substantial changes. New bank legislation has been introduced and foreign banks have entered the domestic market (Heppes & Du Toit 2009:49). South African retail banks operate in a very dynamic and complex competitive environment and the five major banking groups (ABSA, FirstRand, Investec, Nedbank and Standard Bank) control 89.4% of total banking assets in South Africa (Datamonitor 2012). The question is to what extent the differences in economic structure in general and banking activities in particular will have an impact on knowledge management practices in the activities of the retail bank in question.

This article presents the findings of an enterprise-wide knowledge audit conducted at a South African retail bank. Anyone trying to conduct a knowledge audit and implementing knowledge management will find very little published on the actual methodologies that might be used to form the basis for instruction in this regard. As Capshaw (1999) observes, 'often the directive to do something in support of KM is given, but there is no direction'. A search of public domain literature will find frequent mention of the requirement for what is cryptically referred to as a knowledge audit at the launch of any knowledge management initiative. However, upon closer inspection, very little of the literature investigates the topic beyond the most superficial discussion of what such an audit might entail. The knowledge audit constituted the initial phase of the retail bank's knowledge management initiative, which was launched to develop a knowledge management strategy. The retail bank started a three-year corporate-wide knowledge management initiative in 2009. This initiative aimed to:

- Analyse and improve the way the bank creates, shares and transmits its critical knowledge.
- Understand and cross-fertilise internal and external good practices within knowledge management.

- Address the business priorities and challenges from a knowledge management perspective.

The knowledge management initiative is governed by a steering committee. The knowledge audit conducted is a valuable component of the knowledge management initiative that has been developed. Jooste (1999:25) observes that, in order to have any chance of success, a knowledge management initiative must be driven by an understanding of the strategic value it adds to the enterprise. Empirical research conducted by Schultz and Jobe (2001) and Zack (1999) confirms this. According to Wagner and Miner (1999:53–54) knowledge isn't power, but the good implementation of knowledge management practices is power. The objective of the knowledge audit was to identify and describe the current and future knowledge resources and requirements of the bank and, on the basis of this, to clarify the knowledge management strategy. This article addresses the following research question: 'What methodology should be followed when conducting a knowledge audit for a retail bank?'

Knowledge audit

According to Robertson (2002), a knowledge audit needs to be undertaken during the initial stages of a knowledge management program. The audit should identify the knowledge requirements of all the business processes and should identify knowledge sources that can fulfil these knowledge requirements. Stevens (2000) asserts that the precise meaning of the concept *knowledge audit* is not clear. According to Stevens, a knowledge audit should evaluate the state of an enterprise's technology, how well its business processes support knowledge sharing, the work style of the employees and the organisational culture of the enterprise.

A knowledge audit is one of the initial steps in the formulation of a knowledge management strategy (Schwikkard & Du Toit 2004:106). 'A knowledge audit is an investigation of the strengths and weaknesses of an organization's knowledge, and of the opportunities and threats that face it' (Serrat 2008a:9). The audit determines what knowledge exists as well as what knowledge needs to be created and provides an estimate of an enterprise's knowledge 'health' (Perez-Soltero *et al.* 2007:9). The first phase of the knowledge audit provided evidence-based knowledge of the bank's current status and served as a launching pad for an effective, rational and well-planned knowledge management strategy. In conducting the audit, it was very important to answer the following questions:

- What are the bank's knowledge requirements?
- What tacit and explicit knowledge assets does the bank have and where are they?
- How does knowledge flow within the bank?
- What knowledge gaps exist in the bank?

Why is a knowledge audit necessary? In the knowledge economy, enterprises should provide an optimal knowledge infrastructure for its employees and ensure that all content is actual and actionable. The knowledge infrastructure

consists of all tools that support capturing and accessing knowledge that is needed in both the work processes and the knowledge and learning processes (Collison & Parcell 2004:18). The primary function of a knowledge infrastructure is to activate the captured knowledge in order to enable users to apply this knowledge in their work activities (Parcell & Collison 2009:45). The quality of a knowledge infrastructure is determined by the extent it is capable of providing users with timely, accurate, correct and ready-to-use knowledge. Knowledge management should be embedded in all the business processes in the bank (Serrat 2008a:4).

Research methodology

The purpose of the knowledge audit was to investigate the current situation with regard to knowledge management activities in the retail bank. The audit followed a mixed method research methodology. Of the sample frame of 31 000 employees, 847 employees were randomly drawn by computer from the retail bank's employee database to form the sample of the audit. This was a small sample but it compared to similar studies abroad (Ebener *et al.* 2006; Hellström & Husted 2004; Paramasivan 2003; Perez-Soltero *et al.* 2007; Serrat 2008a, 2008b; Stevens 2000). Thirty senior managers, who have a good understanding of knowledge management and a holistic view of the organisation, were also interviewed in order to obtain a strategic perspective on the knowledge management requirements of the bank. These interviews looked at the strategic knowledge management requirements of the business units. A questionnaire was emailed to the sample to determine their knowledge requirements, with a cover letter explaining the purpose of the audit and its legitimacy. The data collection took place over a period of two months and during this period reminders were sent to the participants on a weekly basis. Of the sample of 847 employees, 246 respondents (29.04%) returned completed questionnaires. The credibility of the research was measured by the Cronbach's alpha coefficient and an overall coefficient of 72.4% was calculated for the results obtained. This is considered to be in the range of scores considered to be reliable.

Knowledge audit steps followed

The objective of the knowledge audit was to identify and describe the current and future knowledge requirements of the bank and, on the basis of this, to formulate the knowledge management strategy.

In a meeting with top management, the bank's mission, vision and business objectives were identified and the purpose and importance of the knowledge audit was discussed in detail. Managers of the bank provided documents that served as a base to understanding the bank and its processes. A presentation to top management outlined the processes that should be followed to engage them in the outcomes of the audit.

Knowledge requirements analysis: Thirty senior managers who own, maintain and use knowledge in the bank were

randomly identified and individual interviews were conducted with them. A questionnaire was distributed to the 847 employees who formed the sample of the audit. The major goal of this step was to identify precisely what knowledge the employees possessed and what knowledge they would require in the future in order to meet the bank's objectives and goals.

Knowledge inventory analysis: During this process current strengths and gaps in capability were determined. Core processes and practices that contain useful knowledge were also identified as well as products, services and operations that benefit most from knowledge management practices. Knowledge that is available and used and needed in the bank was identified when the knowledge inventory was compiled. Details of the knowledge (tacit and explicit) that exists in the core processes and where it is located in the bank were included in the inventory. Knowledge gaps – knowledge areas that need future attention – were added.

Knowledge flow analysis: Knowledge flow analysis determines how employees in the bank find the knowledge they need, identifies how they share the knowledge they have and helps in understanding how knowledge flows in the bank (Ebener *et al.* 2006:636). The knowledge flow analysis looked at people, processes and systems (Serrat 2008b:3). This included how employees share knowledge, how the identification, creation, storage, sharing and use of knowledge forms part of the business processes and the infrastructure available to capture and share knowledge.

Knowledge mapping: The purpose of knowledge mapping is to locate knowledge repositories throughout the enterprise (Perez-Soltero *et al.* 2007:11). Knowledge mapping makes tacit and explicit knowledge graphic and visual. It also has the potential to increase knowledge sharing in an enterprise (Ebener *et al.* 2006:642). A knowledge map was produced, which visually represents the organisational knowledge flows. This knowledge map is a navigation aid to explicit knowledge and tacit knowledge, showing the importance of knowledge.

Knowledge audit reporting: A report was compiled that documented the outcomes of the audit. It included the inventory of knowledge requirements, knowledge map and descriptions of tools and solutions to enable better knowledge management. This report was used to develop the knowledge management strategy.

Results of the knowledge audit

Goal setting for knowledge management

The commitment to knowledge management was generally positive, but it varies across business units. The retail bank identified several areas (each comprising a mixture of plans, approaches, tools and actions) to define objectives for various aspects of the bank's operations. These objectives are expected to guide internal activities and contribute to achieving results and ambitions of the bank. According to the respondents, the

dominant focus in the bank is on financial monitoring and justification of processes and projects. Programs and projects plans are approved by the financial committee. The financial committee has the ability to connect projects and to initiate and direct knowledge development and exchange between projects. The focus of the financial committee, however, has shifted towards finance and planning issues and as a result knowledge management is now an underexposed theme within the financial committee. Respondents identified a gap between the desire for qualitative output and the measurement on financial criteria. According to interviewed employees, knowledge management initiatives could focus on closing this gap but this requires incentives for employees to do so.

Objectives for knowledge management

Senior management believes that there are benefits to be derived from knowledge management, but many of them found it difficult to express the specific benefits that they expect. Ones that were mentioned include improved customer satisfaction, improved employee utilisation, enhanced services quality and reduced time to delivery. According to the interviewed senior managers, knowledge management initiatives should contribute to a culture in which knowledge sharing, interest in each other and respect for different opinions are common for employees and management. Employees should also make more use of tacit knowledge. Whilst most respondents to the questionnaires were positive about the knowledge management initiative, some were sceptical about the value to be added by knowledge management. Respondents expressed their personal opinions with regard to possible objectives for knowledge management. The main focus of knowledge management initiatives, according to employees of the bank, should be on availability of knowledge, on reuse of knowledge and on creation of new (innovative) knowledge by the bank. Some confusion exists in the minds of the managers of business units regarding the scope and objectives of knowledge management, and the role of the knowledge management initiative.

Knowledge requirements

The retail bank has currently not defined which knowledge areas are critical in order to improve its current or future performance. Interviewees feel an individual responsibility to maintain their proficiency in knowledge areas that are relevant for them because the bank wishes to become a learning organisation in an effort to increase its efficiency, effectiveness and competitiveness and be more responsive to the needs of its customers. There is no understanding of which knowledge is critical to their operations, now and in the future. They are satisfied with the way they are able to perform their own activities but they indicate that they are open to share more of their own knowledge with others. All 30 senior managers agree that knowledge management is a strategic imperative for the bank and they see a major role played by knowledge management in achieving the bank's

strategies. Knowledge acquired by senior management and employees is knowledge about the expertise of employees because employees are in general not aware of the knowledge their colleagues have in the various knowledge areas. This is less the case when employees work together on specific topics or projects. Knowledge is also needed about past projects and new business opportunities.

In general, interviewees hold an accurate view on the definition and content of the knowledge areas on financial procedures. Employees complain about the burden caused by the need for proper financial justification of projects. The financial department finds it difficult to gain proper insights into goals, needs and activities of projects to justify the financial transactions of projects. It was stated that knowledge management cannot succeed unless it is built on a foundation of sound availability of management information. Knowledge is also needed on the bank's customers. This was identified as one of the most serious shortcomings. Knowledge of 'business contacts' that employees may have in target enterprises was also perceived as being extremely necessary. Another knowledge requirement is a more informed understanding of the financial industry, current business trends and developments and best practices.

Knowledge and learning processes

The retail bank executes various activities and processes that could be labelled as knowledge management or organisational learning activities. However, these knowledge management and learning activities are ad hoc and dispersed across various disciplines. Existing knowledge management processes are currently not managed in a proactive and integrated way. There are various activities in which knowledge creation takes place or is facilitated. The same applies for the transfer of knowledge: there are various meetings and (electronic) documents in which knowledge can be found and reused. Currently there are no communities of practice at the bank. People use their own (informal) methods or networks to gain the latest knowledge on specific topics; they succeed in this but call this sometimes inefficient or time consuming. There is access to a lot of knowledge but this knowledge is not indexed or summarised in one collective memory.

There are no incentives for knowledge sharing and there is a risk that respondents do not know there is knowledge

they need to use. Internal, formal and planned meetings are the business processes most used to share knowledge whilst informal meetings (coffee and lunch breaks) are seldom used to share knowledge. Half of the respondents consider sharing their knowledge with other colleague as an advantage.

Knowledge inventory

The knowledge inventory compiled gave a list of the knowledge assets and resources in the bank. All employees have access to electronic business files. Based on the content of the knowledge inventory and the results of the knowledge audit, it is recommended that content be managed and provided to users through four clusters of knowledge (see Table 1).

It is recommended that the required employee knowledge profiles be delivered to employees in the form of an online 'employee directory', which can be searched on an ad hoc basis. Employees would be able to search for specific individuals or experts.

By comparing the knowledge requirements with the knowledge inventory, knowledge gaps were identified. The majority of respondents (84%) would like to improve their skills and abilities in the area of innovation whilst 52% of the employees would like to improve their skills and abilities in business processes. The most significant knowledge gaps relate to services and products, customers and industries; unstructured explicit knowledge is currently poorly managed and unavailable to all employees. Apart from a limited service and product coding contained in the bank's accounting and administration system, no current systems cater for product knowledge. However, many services and products have detailed material describing their methodologies in training manuals and marketing collateral. The more traditional services and products offerings, and the ones that generate higher levels of revenue, are typically better documented. The knowledge gaps related to services and products would best be catered for by information profiles on the bank's key services and products. With regard to customers, specific knowledge gaps include contact management and customer tracking. The bank's accounting and administrative system is able to manage only very simple knowledge relating to industry trends, good practices and benchmarking. Most of

TABLE 1: Knowledge profiles.

Knowledge type	Channel
Profiles of employees with relevant knowledge or experience.	Human resources database. Currently the human resources database is the primary repository for employee data. Most of the required knowledge relating to employees can be managed in the human resources system, with the exception of a detailed breakdown of previous work experience, personal contacts and CVs.
Customers' knowledge to improve employees' knowledge of customers and thus their ability to add value.	Customer database to provide a detailed description of the activities and characteristics of customers. Only rudimentary, transaction-related knowledge about customers is stored in the bank's accounting and administrative system.
Services and products the bank has delivered to its customers.	Services and products information profiles on what work has been done and the lessons learnt from it. This database needs to be accessible to all because this knowledge is invaluable in upskilling new employees and improving profitability through recycling of work done and experience gained. This knowledge includes detailed methodologies, sample deliverables and training material, which are useful in upskilling new employees.
Descriptions of industries in which customers of the bank work.	Industry information profiles since this is important not only in enabling employees to provide more insightful and innovative solutions to customers, but also in illustrating the bank's understanding of specific industry conditions during marketing. These profiles would aggregate selected content about key industries, as well as insights into the industries, packaged as a unit for each industry.

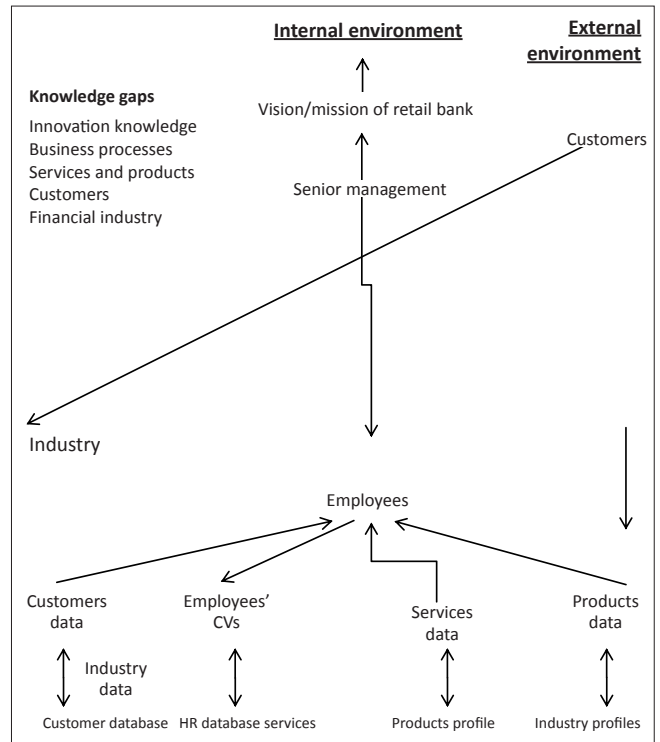
the required industry knowledge would likely be contained in documents, which currently have no formal management infrastructure. Currently only limited knowledge regarding the bank's industries is formally available. Most of the content and almost all of the insights still need to be generated.

Knowledge flow and knowledge mapping

Knowledge flow analysis looks at how knowledge assets move around in the organisation, from where it is to where it is needed, to determine how employees find the knowledge they need and how they share the knowledge they have. A knowledge map is a structured, graphical representation of where to locate various sources of knowledge and business processes and will typically be in the form of a diagram. It is used to develop a network structure to identify existing knowledge in an organisation and also to identify gaps in the knowledge base. One of the aims of knowledge maps is to develop a navigational system for the organisation to enable users to identify existing knowledge. In addition, a knowledge map can indicate where knowledge can be accessed and can reveal gaps in the knowledge base of an organisation (Ebener *et al.* 2006:636–638). A knowledge map was constructed (see Figure 1) to illustrate how knowledge flows through the bank and to indicate to employees where current knowledge can be found. It provides financial industry contacts and looked at both internal and external learning opportunities within the financial industry. It also guides employees to relevant internal knowledge bases and tools and provides a broad view on external knowledge sources, including news, reports, interesting sites and customer site links. This knowledge map can be used to facilitate effective knowledge sharing, to capture existing and new knowledge and to act as a learning tool for the organisation (Hellström & Husted 2004:167). The relationships in codified knowledge can be identified which can lead to a point where complex issues can be simplified for decision-makers.

Recommendations and conclusion

The knowledge audit attempted to address the most critical knowledge requirements of a South African retail bank. The results of the knowledge audit were released to the employees of the bank for feedback and review. Key to the success of any knowledge management initiative is to link knowledge processes to specific business objectives that are recognised as providing distinct benefits or significant value to the enterprise. Based on the findings of the audit, the bank's chief executive officer allocated a significant amount of funds to the implementation of the knowledge management strategy. The knowledge audit helped to make the knowledge in the bank visible and helped the bank to understand the value and contribution of knowledge to the organisational performance. It also identified knowledge that is not currently being used to good advantage. Knowledge management training was provided to all employees. Training at a specialist level was provided to the knowledge management team and training at introductory and intermediate levels was provided to the other employees. This included an explanation of the basic



HR, Human Resources.

FIGURE 1: Knowledge map.

concepts and approaches to knowledge management so that employees could set a context and familiarise themselves with the knowledge management tools that will be applied.

A knowledge audit forms the basis for the formulation of a knowledge management strategy. Based on the results of the audit, it is important that the bank creates a five-year plan to implement the knowledge management strategy. This plan should include the identification of deliverables, the interim milestones and targets, the risks to managing knowledge, the impact of knowledge management, measures of success and the roles and responsibilities of employees. It is also very important to align the knowledge management strategy with the bank's training and development agenda.

The knowledge audit has provided insights into the current strengths and weaknesses in the areas of knowledge management and organisational learning. The bank is highly experienced in supporting external parties in their knowledge development and learning. Respondents report that employees reinvent the wheel in different places in the bank and spend too much time finding out what the bank already knows or what is available. Respondents expressed the assumption that this creates efficiency and quality risks. The interviews demonstrated that employees see much room for improvement. The lack of a knowledge management strategy has led to several business unit-specific initiatives, some of which are keen to implement a solution as a matter of urgency. Whilst the commitment to knowledge management is likely to be positive for the enterprise knowledge management initiative, the risk exists that the business units will drive their own initiatives forward in isolation if their knowledge requirements are not

met quickly by the enterprise-wide initiative. Initial efforts should be focused on the development of an enterprise-wide knowledge base – a one-stop solution for all employees as users – that will provide insights about the employees, customers (and potential customers), industries and services and products. This knowledge base must provide a single point of access to all the knowledge required by the users. Once the knowledge management strategy is formulated and implemented, the knowledge management initiative can be broadened to incorporate more sophisticated knowledge management solutions.

As previously stated, few methodologies to conduct a knowledge audit are described. The knowledge audit conducted for the retail bank can be described as an audit that provided evidence-based knowledge of the bank's current knowledge status and served as a launch pad for an effective, rational and well-planned knowledge management strategy.

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Competing interests

The author declares that she has no financial or personal relationship(s) that may have inappropriately influenced her in writing this article.

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