Knowledge-management practices at selected banks in South Africa

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Background: Effective knowledge organisations (EKO) create dynamic capabilities through the acquisition, creation, sharing and retention of knowledge. These EKOs are designed to enable an organisation to improve best practices in business. As knowledge is different from other organisational resources, decision-makers ought to understand the importance of knowledge to an organisation. In order to fully utilise knowledge-management (KM) practices and to enhance efficiency, management should appreciate and understand the importance of KM. A proper understanding of KM will add value to organisational knowledge.

Objective: This study focused on investigating the knowledge-management practices at selected banks in South Africa. The objective was to establish the extent to which selected banks had implemented knowledge-management practices such as the acquisition, sharing and retention of knowledge.

Method: Quantitative and qualitative data for this study were collected through the use of a multi-methods approach. Data were collected from middle and senior managers through the use of questionnaires and an interview protocol. All usable quantitative data were analysed using Survey Monkey and Microsoft Excel 2010 whilst thematic analysis was used to extract detailed, rich and complex data accounts from interviews.

Results: Though the study revealed the presence of KM practices at selected banks, KM concepts were not universally understood, thus impeding the organisation-wide implementation of KM practices. Knowledge-management practices were only discussed as a footnote because no formal policies existed to add value to KM initiatives.

Conclusion: The study concludes that organisations such as banks should perform a knowledge inventory. Knowledge inventories will become handy during the process of developing KM policies and practices for integrating work processes, collaborating and sharing (including the efficient use of knowledge technology platforms) and developing an enabling institutional culture.

Introduction and background to the study

As pointed out by (Gaffoor & Cloete 2010:1), 'Knowledge management (KM) has become a focal point for debates on mechanisms to assist firms in acquiring a greater competitive edge in the emerging global information economy'. This means that organisations – big and small, global and domestic – are channelling their focus on knowledge assets as strategies for competitive advantage. Knowledge tools and systems are being developed to give an organisation a competitive edge. Fowler and Pryke (2003) defines KM as follows:

> … an established management approach that is successfully applied across corporate sectors by methodically creating, sharing, preserving and optimally applying the extensive knowledge present in the organisation, to better achieve organisational objectives. (p. 254)

The above definition captures fundamental issues that are used in discussing KM practices in this study. In this regard, Cong and Pandya (2003) suggest the following:

> … any given control mechanism has the capacity to affect both the nature and flow of knowledge in a firm by the manner in which the firm processes particular attributes of knowledge. (p. 27)

The South African banking environment is characterised by intense competition, thus compelling the players to use strategies and create knowledge assets that are difficult to imitate. For an institution to remain competitive and relevant in a knowledge environment, there are opportunities to create, own, protect and use commercial and industrial knowledge assets which are difficult to copy. The South African banking industry comprises four commercial banks, namely ABSA, FNB, Nedbank and Standard Bank whilst the other banks focus on unsecured

lending (personal loans). FNB and Nedbank were selected for this study for the following reasons:

- FNB was chosen because it is the second largest South African commercial bank (after ABSA) in terms of staff complement, assets and branch network (Moneyweb 2012).
- Nedbank was selected because the first author was formerly employed by the bank. This means that permission to conduct a study on Nedbank was already granted, and recruiting participants for the study was relatively easy.

Selecting one bank would have sufficed, but because a comparative approach is utilised in this study, it is of paramount importance to extrapolate different research issues. If two or more cases show to be supporting the same theory, replication can be claimed, and the greater the number of case studies that show replication, the greater the rigour with which theory has been established (Rowley 2002).

The banking customers' ever-changing tastes and preferences require banks to proactively improvise products, exit projects and product lines that can drag down the business and engage in others that maximise the growth potential as radical market shifts threaten to put the bank's business with the wrong product. By rapidly exploiting and applying fragmented internal and external knowledge, a bank can reliably detect emerging windows of opportunity before competition takes the market by surprise. This study investigated the extent to which selected banks in South Africa have implemented KM practices such as the acquisition, sharing and retention of knowledge.

Literature review

The literature review was used to establish how other scholars investigated the same problem. The purpose of reviewing a variety of scholarly thinking was to look at what other scholars have done in areas that are similar or have a relationship to this study (Leedy & Omrod 2005:64). To gain a better understanding of KM practices, it is important to define the area of interest. In Sarrafzadeh, Martin and Hazeri (2006), KM practices are defined '… as the way ideas are translated into action in the process accomplishing specific goals'. Branin (2003:25) opines that 'KM practices include the understanding of KM, knowledge generation, acquisition, organisation, storage, transfer, sharing and retention'. However, Singh (2007) argues as follows:

> Information professionals need to develop the capabilities to survive in knowledge based society, there is need for organisations such as banks to invest in information and knowledge architectures to produce more knowledge. Investments can be in the form of databases systems, patents and tacit knowledge which when fully utilised in the organisation can produce streamlined processes and high quality services and products. (pp. 177–178)

These outputs from a knowledge-based organisation should add value to the organisation as well as provide value for customers.

Knowledge acquisition

Pacharapha and Ractham (2012) define knowledge acquisition as the process of the development and creation of insight, skill and relationships. For knowledge to be acquired, '… there should be willingness and ability of a recipient to acquire and use knowledge are crucial elements' (Gupta & Govindarajan 2000; Ragsdell 2009). During the process of knowledge acquisition, it is important that both source and recipient should be willing to share. There are three motivational drivers that should be taken into consideration: '… attitude towards knowledge sharing, cost and benefit, subjective norms and organisational climate and perceived value of knowledge' (Ford & Staples 2006:14). Knowledge acquisition envisages learning from others through interaction between recipient and source. Nonaka and Takeuchi (1995) opine that the SECI (socialisation, externalisation, combination, and internalisation) and *ba* models play important roles in knowledge acquisition through interaction and collaboration with other individual systems. In knowledge-intensive institutions such as banks, enabling environments are envisaged that allow different departments or individuals to acquire insight, skill and relationships. Management should counter the silo mentality and allow departments to share information, notwithstanding the privacy and secrecy policies of banks. Training and development programmes inherent in banks should pave ways for knowledge acquisition, which is consistent with the SECI and *ba* models.

Knowledge sharing

KM practices help organisations to refocus on using knowledge that exists already by '… creating an environment for innovation rather than limiting themselves to best practice solutions only' (Laudon & Laudon 2012:245). Turban, Mclean and Wetherbe (2004) define knowledge sharing:

> … as the wilful application and transfer of one or more person's ideas, insights, solutions and knowledge to another person(s), either directly or via an intermediary, such as a computer-based system. (p. 412)

The definition by Turban *et al*. (2004) illustrates that organisations should have systems in place that help the process of knowledge sharing. A good example of such systems would be computer-based systems because of its speed, ability to store large volumes of information and retrieval capabilities. Knowledge sharing enables organisations such as banks to converge towards '… knowledge portals rather than separate silos of knowledge' (Moneyweb 2013). Knowledge sharing occurs during induction (of new employees) or when employees quit the organisation. Knowledgeable and experienced employees who possess knowledge should be willing to share it. Knowledge shared by individuals and by a community of practice becomes organisational knowledge.

Knowledge may be shared during seminars, conferences, team-building exercises, written reports, performance appraisals and conventional programmes where employees

make suggestions. Discussion fora give people opportunities to share personal experiences about a particular event. Seminars and conferences are ideal platforms for 'shy' or 'less vocal' employees to talk freely and openly with their colleagues. Platforms for knowledge sharing should make the communication process easier for different categories of employees. Sentiments or opinions expressed during seminars or conferences should not be used as personal attacks, and managers should not use these events to settle personal scores. Knowledge sharing can encounter challenges such as a lack of time, a lack of experience and a lack of visible rewards for sharing knowledge.

Knowledge retention

Kim (2005:37) defines knowledge retention '… as all systems and activities that capture and preserve knowledge and allow it to remain in the organisational system once introduced'. Management needs to put in place strategies for retaining organisational knowledge before it is lost. The knowledge and expertise of employees should be retained before they leave the organisation. In the absence of knowledge retention strategies, organisations lose tacit knowledge when employees leave for other organisations or due to other forms of attrition. Nonaka and Takeuchi (1995) state that 80% of knowledge lies in the brains of people who possess know-how, secrets and personal skill that will never be shared if no one works on it. This is consistent with Polanyi's (1962) view that '… we know more than we can tell'. In Polanyi's (1962) view, one person may have much knowledge but may not be able to say much about that knowledge. There are employees who carry large volumes of knowledge (tacit knowledge) in their heads, but they may not be prepared to or the environment may limit them from saying much. Tiwana (2008:103) suggests that, in order to make better use of tacit knowledge, a way must be found for it to be transferred directly to one another, making it explicit so that it can be shared throughout the organisation. Individuals who are rich in tacit knowledge (experienced employees, retirees and other talented experts) constitute a wealth of intangible assets for the organisation (Nonaka & Takeuchi 1995).

Wamundila and Ngulube (2011) and Levy (2011) established that knowledge retention could be achieved through documentation and integrating knowledge back into the organisation with special emphasis on retaining best practices. To safeguard against a loss of knowledge, organisations need to devise ways of retaining employees' know-how and best practices so that knowledge can be passed on to future workers, and replacements who should regain the on-the-job knowledge that ex-employees spent years accumulating (Thilmany 2008). Wamundila and Ngulube (2011) posit that knowledge can be retained in an organisation through various strategies that may involve education, training, establishing communities of practice and professional networks, documenting the processes and using advanced technology to capture work processes. This knowledge has to be captured and stored in databases, documents, software and processes, products and services. The human-resources management function of the banks plays a significant role to coordinate planning programmes for training and development as well as induction and succession. For these elements to work together, the prevailing organisational culture, 'as enabler' of KM, helps to facilitate synergy between the KM practices. There are barriers to implementing KM practices. These include a lack of employee interaction, the salience of value, a lack of KM policies, a lack of structural ties and the absence of KM enablers. These barriers require attention should an organisation plan to implement KM practices. Failure to pay attention can result in the failure of KM initiatives as evidenced by the low level of KM practices at selected banks.

Methodology

We used multiple methods in the study to improve the reliability and validity of the data collected, culminating in the collection of a rich set of data (triangulation). Multi-methods research was designed to guarantee the reliability and validity of quantitative measures (Romm & Ngulube in press). An embedded case-study design offered the opportunity to explore in depth the extent to which banks have implemented KM practices such as the acquisition, sharing and retention of knowledge. Embedded case studies are studies in which different levels or sources of data are collected (Yin 2003). According to Powell (1997:66), the population should be selected with great care, bearing in mind the selection criteria, the desired size and the parameters of the survey. In light of the above, We selected two commercial banks from the four commercial banks in South Africa (population) but then targeted middle managers and purposively selected senior-level managers from the population. The population of a study is the group about whom one wants to draw conclusions. In this case, it was all middle-level managers and purposively selected executive managers (Babbie 2010:111). The whole population (190) of middle-level managers was considered in the study whilst four senior executives were purposively selected to participate in face-to-face interviews. These were selected from the already-delineated sample perceived by the researchers to be key individuals who would give invaluable insight and more detailed answers to the research questions on KM policies.

Questionnaires were used to collect data from geographically dispersed participants whilst interview protocol and document analyses were ideal for collecting qualitative data. Questionnaires were distributed and received through Survey Monkey©, an online survey platform. A total of 190 questionnaires were distributed to middle-level managers at the selected banks. The questionnaire comprised open-ended questions that allowed the participants to give as much feedback as possible. A set of pre-designed, open-ended questions were used during the interview process to ask participants questions on KM policy issues that were not addressed in the survey.

All quantitative data were analysed using Survey Monkey© and Microsoft Excel© 2010 whilst thematic analysis was used to analyse qualitative data. Using the constant comparative method of analysis (Leedy & Ormrod 2010:145), we looked

for emerging themes and recurring events and categorised them. The themes and patterns emerging from interviews and surveys were grouped together, making it easier to analyse the data. Braun and Clarke (2006:77) argue in this regard that '… thematic analysis can act as a core analytical method because of its flexibility with both interpretive and constructivist paradigms'.

Major findings and discussions

Of the 190 questionnaires distributed, 101 (53.15%) responses were received, which is consistent with the findings of Greenlaw and Brown-Wetty (2009). They (Greenlaw & Brown-Wetty 2009:467) established that '… a response rate of 51.58% from a web-based survey tool was higher than many responses rates of that type of survey as reported in literature'. This study achieved a response rate that was 1.57% rate higher than that of Greenlaw and Brown-Wetty. Of the 101 respondents who participated in the study, 58 (57.43%) were from Nedbank and 43 (42.57%) were from FNB. The gender characteristics of respondents were as follows: 39 (38.61%) male managers from Nedbank compared to 27 (26.73%) male managers from FNB, 19 (18.82%) female managers from Nedbank compared to 16 (15.84%) female managers from FNB. It was established that, in all gender categories, more respondents were from Nedbank. The findings of the study are presented in two sections, namely quantitative and qualitative.

Quantitative findings

Respondents were asked to indicate KM practices and to what extent their bank had implemented KM practices. All study participants indicated that the acquisition, sharing and retention of knowledge are practiced at their bank. The study established that selected banks use different KM practice though a few of these KM practices were indeed found to be similar. The study identified the following KM practices.

Departmental meetings and team-building sessions

The data in Table 1 show that 18.84% of the respondents believed that departmental meetings and team-building sessions were the most widely used KM practices at the selected banks. The study revealed that, during departmental meetings, employees were exposed to information pertaining to global trends in the banking industry such as credit-card fraud, systems to combat cyber-crime and rules from MasterCard and Visa International. Departmental meetings were used as platforms for discussing and highlighting challenges and opportunities in the South African banking industry. It was established that team-building sessions were platforms for fostering awareness of the team spirit and to reinforce commitment to the team's shared goals and objectives' (Jain 2011:6). The study established that team-building sessions were designed to encourage individual team members to cooperate in the team's work environment, interacting and integrating skills into a united effort so that each individual's goal achievement is connected to the greater overall team's goal achievement. This thinking is consistent with the views of Jain (2011), namely that tacit knowledge can be achieved through face-to-face meetings and electronic discussions. Nonaka and Takeuchi (1995) posit that tacit knowledge can be transmitted through social interactions between individuals.

Succession planning

Eleven (10.89%) of the respondents believed that succession plans enable selected banks to retain organisational knowledge. The study established that succession planning is designed to ensure the continued effective performance of selected banks by providing for the deployment and replacement of key people over time. Participants indicated that lateral transfer and redeployment are a common practice at selected banks. Though redeployment and lateral transfer are common, this study could not establish if the motive was in line with KM initiatives. 'Effective succession or talent-pool management concerns itself with building a series of feeder groups up and down the entire leadership pipeline or progression' (Noe *et al*. 2010:447). There is no guarantee that experienced employees will retire or spend the rest of their working life in one organisation. Hence, organisations engage in succession planning programmes to ensure that businesses survive into the future in the event of a loss in tacit knowledge. With the changing demographics of the global village, organisations lose key staff to competitors due to working conditions or opportunities presented by competitors (Hill 2010:276). When key staff resigns or retires, it becomes a challenge to replace the key staff if the organisation does not have contingency measures in place.

Internet and intranet

Respondents indicated that the intranet and Internet play a key role as evidenced by a response rate of 14.85%. Technology facilitates communication between management and employees as well as quick access to, the search for and the retrieval of information. Dewah (2011:106) posits that '… technology comprising collaborative computing tools, knowledge servers, enterprise knowledge portals, electronic document management systems, knowledge harvesting tools and search engines' are critical enablers of knowledge-management. This information-communication technology plays an important role in how banking processes and transactions are conducted. Jain (2011) opines that effective knowledge-management practices could be achieved by utilising the latest IT tools in order to capture, create, store, transfer, share, retrieve, maintain and update knowledge. The study established that employees at selected banks have email addresses and a laptop or a personal computer, justifying their arguments that information and knowledge was created and shared through the Internet and intranet.

Road shows

As shown in Table 1, 3.96% of the respondents stated that road shows were common at Nedbank. Kotler and Keller (2013) define a road show as follows:

> … a program comprising a series of marketing events that companies organise at multiple locations to generate interest

TABLE 1 Knowledge-management practices at selected banks.

Knowledge-management practices at selected banks	Nedbank (%)	FNB (%)	Total number of respondents (%)
Departmental meetings and team-building sessions	12 (11.89)	6 (5.95)	18 (18.84)
Succession planning	7 (6.93)	4 (3.96)	11 (10.89)
Use of the intranet and Internet	9 (8.91)	6 (5.94)	15 (14.85)
Road shows	4 (3.96)	-	4 (3.96)
Tea or lunch breaks	5 (4.95)	-	5 (4.95)
Seminars	3 (2.97)	-	3 (2.97)
Facebook, Wikis, Blogs and Twitter	6 (5.94)	2 (1.98)	8 (7.92)
Staff promotions/secondment	3 (2.97)	-	3 (2.97)
Mentorship	4 (3.96)	-	4 (3.96)
Project teams	5 (4.95)	3 (2.97)	8 (7.92)
Innovators campaign	-	7 (6.93)	7 (6.93)
Training centre	-	5 (4.95)	5 (4.95)
Extension of retirement age	-	3 (2.97)	3 (2.97)
Knowledge portals	-	3 (2.97)	3 (2.97)
Suggestion boxes	-	4 (3.96)	4 (3.96)
TOTAL	**58 (57.43)**	**43 (42.57)**	**101 (100)**

regarding a subject that they want to promote. It could about new products/services targeted at customers, new investment offerings targeted at investors, new social initiatives targeted at the community and so on. (p. 476)

These marketing events are usually conducted by the chief executive officer or managing executive of the bank in the case of Nedbank. They use the executive to add dignity and credibility to the roadshow as well as to attract high-profile individuals in society. The study revealed that road shows were conducted at Nedbank's regional head offices in Sandton, Pretoria, Polokwane, Cape Town and Durban, thus isolating other towns or cities.

Tea and lunch breaks

Tea and lunch breaks are platforms used to discuss social issues as evidenced by 4.95% of the respondents from Nedbank. Knowledge sharing platforms during tea or lunch breaks are not used at FNB as indicated in Table 1. During tea or lunch breaks, employees sometimes talk about work-related challenges and political and economic matters. These platforms enable employees to create and share knowledge and information. Social issues dominate tea and lunch breaks as friends want to 'catch-up' with weekend events.

Seminars

Nedbank respondents (2.97%) stated that seminars are environments where participants socialise and create and share knowledge with their colleagues. This finding is consistent with Nonaka and Konno (1998) who state that knowledge is shared within a contextualised space, called *ba*, which is a Japanese word roughly meaning 'place'. This designates a specific time and place where interactions between individuals take place. Employees should be given platforms to interact face-to-face, such as conferences meetings, so as to share a common understanding through shared language and narratives across networks. Trust also increases the incentive to exchange knowledge, and norms of reciprocity facilitate the transfer of novel information and tacit knowledge (Sheriff & Sheriff 2008).

Interactive communication channels

Interactive communication channels are tools such as emails, short message services, Facebook, WhatsApp, Twitter, Blogs, Wikis and BlackBerry messaging that handle, store, locate, distribute, receive and communicate tacit and explicit knowledge through social networks amongst people in possession of knowledge. Eight (7.92%) respondents confirmed the use of interactive communication channels at selected banks. Dewah (2011) posits that the adaptive-structuration theory draws some links between individuals and organisational learning due to the key concepts that address aspects of group interaction with technology. Organisational learning is regarded as a continuous phenomenon emerging from the social interactions and practices of individuals (Ryu, Kim & Chaudhury 2005). With the advent of interactive communication technology such as wikis, blogs, Facebook and Twitter, to name but a few, individuals are exposed to new information and knowledge.

Staff promotions and secondment

The study established that knowledge retention is achieved through the use of staff promotions and secondment as evidenced by 2.97% of respondents from Nedbank. Participants from FNB did not indicate the use of staff promotions and secondment as a knowledge retention practice. The study established that staff were promoted on the basis of years of experience, opportunities that arose due staff attrition and as part of Nedbank's succession planning policy. However, it was not clear if staff promotions were in any way aligned to knowledge-management initiatives.

Mentorship

The subject expert or experienced employee transfers tacit knowledge to the inexperienced employee (Nonaka 1995). Mentorship entails the pairing of an experienced member of staff with an inexperienced or new employee in order to assist the new employee in acquiring new knowledge

(Beazley, Boenisch & Harden 2002). During mentoring and apprenticeship training, senior or experienced managers transfer their knowledge, wisdom, specific insights and skills to their juniors within a short space of time so that, when the experienced employees leave the organisation, the organisation's practices, knowledge, history, stories and culture are preserved. The evidence (3.96%) shown in Table 1 indicates that mentorship programmes are used as a practice for the creation, sharing and retention of knowledge at Nedbank.

Project teams

The study found that selected banks have assembled groups of individuals to perform activities that contribute toward achieving a common task-related goal. The study established that product development, systems development, marketing campaigns and training and development projects are managed by project teams consisting of skilled workers from the same or different function areas. Eight (7.92%) of the respondents indicated that assignments or tasks at the selected banks are managed by retirees or experienced employees. They provide critical skills and experience to mentor junior and less-experienced employees, thus allowing senior employees to share knowledge and experiences during project management.

Innovators campaign

Seven (6.93%) of the respondents (from FNB) stated that the innovators campaign is a great success story for knowledge-creation and sharing because FNB's success is attributable to rewards and incentives awarded for innovation. The website Moneyweb (2012) reports on this matter as follows:

> First National Bank awarded R4 million in 2009 to winning ideas through its FNB Innovators initiative, in a bid to improve its service delivery and at the same time motivate staff to higher levels of excellence.

> The initiative identifies and rewards staff who display creative thinking and come up with innovations to ensure more efficient and effective systems and procedures. (n.p.)

In addition, the Steve campaign, eBucks and eWallet exemplify innovation initiatives at FNB, and individuals who came up with those concepts were rewarded for creative thinking. The study recorded that the innovators campaign is an important KM practice at FNB. This practice was not found at Nedbank.

Training centre

Results shown in Table 1 show that FNB has put in place KM practices such as training centres as indicated by 4.95% of the respondents. The study established that the FNB training centre is situated in the Sandton Business district, comprising 16 versatile conference venues, 3 boardrooms and a 140-seater auditorium and several breakaway rooms (First National Bank [FNB] 2011/12). The training centre is equipped with state of the art technology and facilities, and it

offers an enabling environment for knowledge-creation and sharing (Nonaka & Takeuchi 1995).

Extension of retirement age

The risk of losing critical knowledge has a negative operational impact for organisations. This could be reduced by knowledge retention through capturing the organisations' individual tacit knowledge and subsequently transforming it into organisational knowledge and document processes. Critical knowledge in some of the banks' departments largely rests with people rather than in processes. When such people leave the bank, they take with them that critical knowledge. If the expertise of these senior or experienced people is not shared or transferred to the next employees, the potential to innovate is eroded, and the risk of unavoidable mistakes increases as these become a regular occurrence. It was established that the retirement age at FNB is not fixed to give both the employer and employee room for negotiation. Three (2.97%) respondents indicated that a policy on extending the retirement age exists at FNB whilst such a practice does not exist at Nedbank.

Other practices

The study recorded that knowledge portals (2.97%) and suggestion boxes (3.96%) are used for knowledge sharing at FNB, but there are no knowledge portals at Nedbank. Knowledge portals provide the infrastructure and enabling technology to support the creation, production, acquisition, aggregation, filtering, organisation, transmission, dissemination, usage and/or retention of knowledge. If the computer of today is a network, the desktop of today is a portal (FNB 2011/12). As suggested by Dewah (2011), organisations require ICTs that enable the acquisition, sharing, storage, retention and retrieval of organisational memory for future reuse. Knowledge portals become effective KM enablers if the systems are aligned to organisational KM policies. The study established that FNB's IT department is tasked to manage knowledge-related issues to reduce the cost of information publishing and distribution; to increase compliance with corporate standards, rules and processes for information storage and dissemination; to automate business processes such as price-quote generation or lead and forecast sharing and to preserve and leverage prior investments in back-end document management, enterprise resource planning (ERP) and data-warehousing systems (Moneyweb 2013). This study found that managers tend to conflate IT and KM, and this probably explains why the IT department was given these tasks. Both online and physical suggestion boxes are used as platforms for collecting and sharing information with customers and employees. Loyal customers send feedback on the quality of services delivered. The results are shown in Table 1.

The study noted that there are times when knowledge is relevant, and there are times when knowledge is not relevant. The point is that organisations need to use knowledge as soon as it becomes readily available. It was established that information use leads to knowledge-creation, which is possible if an organisation's management creates an enabling

knowledge sharing culture. An environment that promotes knowledge acquisition is an environment where employees are provided with '… spaces for emerging relationships, which might be physical, virtual, or mental, providing a platform for advancing individual and/or collective knowledge' (Nonaka & Takeuchi 1995).

Qualitative findings

The knowledge assets of selected banks were found in places like databases, filing cabinets, Internet, intranet, extranets, annual reports and people's heads. The use of the intranet exposes staff to readily available information in order to acquire as much new knowledge as possible. Consequently, some relevant knowledge is acquired through bulletins posted on the intranet, but the veracity or relevance of the knowledge needs to be questioned. It was not clear whether management at selected banks are formally accepting and adopting knowledge as a strategic organisational asset. The banks' reports did not feature the KM practices in their mission statements or core philosophies. However, the FNB self-study of 2011 reveals that KM principles are in fact resident within the Information Technology Department. This finding is also complemented by Nedbank's self-study of 2011, which states that the Group Technology Shared Services (GTSS) is the custodian of knowledge practices. From this information, it is clear that banks misconstrue IT to be knowledge.

Patrick and Dotsika (2007) view knowledge sharing as the social interaction that involves the sharing of both the goal and the favourable outcome centred on problem solving. Platforms for knowledge sharing should then create opportunities for social interaction. The selected banks demonstrated a global presence on iTunes, U Blogs and social networking with the use of Facebook, Twitter, YouTube, WhatsApp and Blackberry Messaging (BBM). One observation from the study is that information-flow and Web 2.0 technology are used in banks as knowledge sharing tools. In addition, podcasts are included in iTunes to reach as many banking clients as possible. However, an interesting revelation was that the technology was created for customers, but employees have limited access to the use of such (Moneyweb 2012). In view of the selective use of Web 2.0 technology, employees felt marginalised in the process of knowledge sharing.

The process of keeping useful knowledge inside the banks and building organisational memory (OM) is documented in the selected banks' reports. This knowledge is preserved and kept in very safe places to ensure knowledge retention. It was established that KM awareness is limited as reflected in the following statement:

> … there did not appear to be a documented inventory of the banks' skills base, or evident records of succession planning, even if the banks' annual reports suggested that there were career development practices. (FNB 2011/12; Nedbank Group South Africa 2012)

The absence of documents to indicate the progress on implementing KM practices could possibly explain why

the cultures prevailing at the selected banks were not in favour of knowledge retention. In the event of the loss of key staff in these banks, management would have to revert to contingency measures to mitigate the loss in tacit knowledge.

This study noted that knowledge acquisition is a sub-set of knowledge capture because the knowledge acquired at the selected banks came from such sources as individuals and their colleagues as well as the intranet, Internet, documents and databases (Mavodza & Ngulube 2011). One observation was that expert systems are used by organisations to acquire knowledge from experienced individuals before the expiry of that knowledge. Though the selected banks have platforms for the acquisition, creation, sharing and retention of knowledge, it was noted that some of the KM practices do not provide employees with opportunities for asking questions or making suggestions as pointed out by one survey respondent. It seems clear that each KM practice has strengths and weaknesses. Therefore, the use of complimentary practices would be ideal to compensate the weaknesses of some practices.

The data for this study was both quantitative and qualitative in nature. Therefore, I needed to combine the data (triangulation) to provide answers to the research questions. The depth, clarity, reliability, transferability and truthfulness of the research findings are enhanced when two sets of data are put together. It should be noted that quantitative data are represented in numerical and graphical format whilst qualitative data are more descriptive. It was important to combine quantitative and qualitative data to ensure that relevant data was collected to address the KM practices that were investigated in this study. When multiple research methodologies are used, challenges abound when one tries to combine divergent paradigms. The challenges include the following: It is possible to end up by not doing either type of research well, especially as this research was done by an individual (Fidel 2008). Both quantitative and qualitative findings show that the IT departments of the selected banks are mandated to run all KM initiatives, a notion whereby many people conflate IT into KM or whereby all KM practices are part of IT. Findings from both sets of data indicate that ICTs are paramount in the acquisition, sharing and retention of KM practices.

## Organisational knowledge conversion theory (SECI Model)

The study noted that KM practices at selected banks are based on the organisational knowledge conversion theory, that is, the SECI model. The conversion of organisational knowledge rests on the premise that knowledge is converted from one state to another (Nonaka &Takeuchi 1995). In this way, critical knowledge can be retained in the organisation by either sharing it or preserving it in the archives, thus forming part of the organisational memory. Nonaka and Takeuchi (1995) opine that organisational knowledge conversion deals with the conversion of knowledge from tacit to tacit (socialisation), from tacit to explicit (externalisation), from explicit to tacit (internalisation) and from explicit to explicit (combination) knowledge.

Socialisation: This entails the process of sharing knowledge between experts, mentors and retirees from whom juniors and new entrants at work can learn and in the process create tacit knowledge such as technical skills that may be obtained through observation, imitation and practice (Nonaka & Takeuchi 1995). In the selected banks, socialisation (originating *ba*) occurred when banking employees had direct, physical, face-to-face experiences with banking clients. Much of the interaction was in the banking halls, specifically with tellers and enquiries counters. The selected banks also used different ICTs in their operations. This means that employees are provided with laptops, and personal computers are made available in the banking halls for customers with online access. The banks also provide guidance on the effective use of technological resources. The latter could be viewed as the starting-point of the knowledge-creation process. The use of PCs in the banking halls is designed for customer convenience and easy access to the Internet. This is a simple way of capturing customer knowledge.

The sharing of tacit knowledge also manifested itself in the card and IT divisions of the selected banks. The study also established that tacit knowledge is transferred to fellow employees in the card division regarding trends in the credit-card payment industry, asset finance and personal loans. Through emails, intranet, electronic bulletin boards, training and brainstorming activities, tacit knowledge is transferred from one employee to other employees. Computer technology makes it possible for the organisational knowledge to be spread across the entire organisation (Nemani 2010).

Externalisation: It refers to the process of articulating tacit knowledge in the form of explicit concepts such as metaphors and analogies (Nonaka & Takeuchi 1995). The study established that selected banks use automated processes as well as manual systems to externalise tacit knowledge into paper records (organisational memory and archival repositories) that are accessed by the employees for use (codification). Externalisation (interacting *ba*) in the selected banks is expressed through the building and management of a collection of knowledge that comes in a variety of formats and their associated technology (Nemani 2010). In the case of FNB, innovative teams excel in bringing new services or products on board whilst, at Nedbank, externalisation is triggered by dialogue, regular formal meetings and brainstorming sessions (*dashikai*).

Combination: This is the process of combining bodies of explicit knowledge. In the process of combination, explicit knowledge is systemised and refined by, for example, utilising information and communication technology and databases (Lwoga, Ngulube & Stilwell 2010; Nonaka & Takeuchi 1995). In the selected banks, explicit knowledge is transferred through emails, documents, meetings and conversations, and such knowledge leads to the generation of new knowledge (Nonaka & Takeuchi 1995). Because of strict security policies, employees in selected banks share their explicit knowledge with fellow professionals during
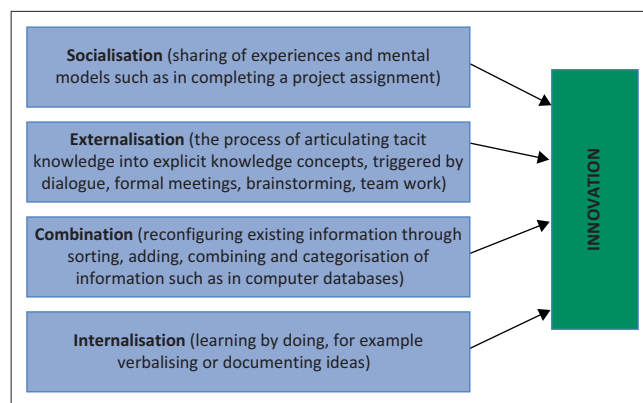
Source: Daud, S., Rahim, R.E.A. & Alimun, R., 2008, 'Knowledge creation and innovation in the classroom', *International Journal of Social Sciences* 3(1), 76.
FIGURE 1: SECI Model: Innovation in selected banks.

departmental and general meetings, through business cell phones and via emails.

Internalisation: It is the process of converting explicit knowledge to tacit knowledge and is closely related to learning by doing (Nonaka & Takeuchi 1995). In this study, archives and procedure manuals were identified as sources of technical knowledge that were acquired by employees and then used to solve some work-related problems. The card divisions of selected banks refer to merchant profiles to determine the levels of fraudulent transactions, merchant transactions and other queries. Innovation by bank staff who work in a modern information environment is subsequently reflected in the enhanced quality of service and innovative products provided. The SECI processes are depicted in Figure 1.

The study established that a culture that promotes the creation of new knowledge in the organisation is vital because this allows organisations to create new knowledge from shared and existing knowledge repositories. The new knowledge must be preserved and retained as knowledge assets in appropriate media. Albers (2009) states that an ideal knowledge-management culture is characterised by trust, openness, teamwork, collaboration, risk taking, common language, courage and learning. Stankosky (2005) states that people are rewarded and recognised for individual achievements, sharing knowledge and contributing to teamwork. This is possible in an environment where the culture of knowledge sharing is a common practice. The implication of a lack of open-mindedness concerning KM practices is that any attempt by the banks to encourage these KM features would be fruitless if they are not a part of the banks' knowledge sharing culture. It would not even matter if there were no proper IT platform to share information. It was established that reward systems could be used to create re-usable knowledge resources. Contributing towards a collection of re-usable knowledge resources, knowledge capture could, if put in place, start happening in a formal way (Dewah 2011).

It was noted that a lack of knowledge-management practices leads to high costs due to a loss of institutional memory,

knowledge gaps and uninformed decisions. Managing knowledge in a bank can leverage efficiency across all of its services to customers through accessing the right information for making informed decisions and eliminating duplication of efforts. Baskerville and Dulipovici (2006; see Jain 2007) mention the following:

> … one of the characteristics of the economic school of KM as incorporating the ability to be a learning organisation that enables creativity and in the process increases the value generation capacity of an organisation. (n.p.)

The study established that knowledge enhances organisational performance as shown by 21.78% of the surveys though the point was raised by 17.83% of the respondents that a combination of knowledge and business strategies enhances organisation performance. Surveys and interviews concurred that, in the knowledge economy, organisations leverage efficiency across departments, thus improving service delivery and processes. This was evidenced by 13.86% of the respondents who viewed KM as a solution to business problems whilst 11.88% of the respondents felt that KM enhances customer relationships. Building relationships with customers or suppliers is regarded as a competitive strategy (Kotler & Keller 2010, 2013).

Building long-term relationships with suppliers and customers will enable the selected banks to leverage such relationships for growth. Nine (8.91%) of the respondents stated that knowledge-management improves work processes whilst 6.93% of the respondents stated that KM improves product and services development – an important factor required to address the ever-changing tastes and needs of customers. An organisation that has technology and processes that produce products and services within a shorter space of time than competitors usually satisfies customers (Kotler & Keller 2010, 2013) – resulting in knowledge work.

Conclusions

KM practices in the banking situation should be actions aimed at improving the internal flow and use of information and knowledge, and banks can be a major participant in these activities. Examples of such practices include the creation of 'best practices', databases, regular training and development programmes as well as the encouragement and promotion of employee interaction within departments and between individual staff and departments (Nonaka & Takeuchi 1995). One issue that was observed was that departments operated in knowledge silos. In this regard, Nonaka and Takeuchi (1995) advocate for interaction between individuals or departments to share knowledge and information. KM practices need not be based on the preconception that an organisation can mandate people to share their knowledge. It is likely that individuals would be willing to share their knowledge because they want to, not because they have been told or coerced to do so. It was established that there are no stipulated practices at selected banks for the acquisition,

creation, sharing or retention of knowledge. However, the efforts that are made included staff meetings, team-building sessions, the use of Internet and intranets, succession planning, innovation campaigns, knowledge portals and project management teams.

The study established that knowledge at selected banks is not properly managed to facilitate the implementation of competitive KM practices for surviving in the knowledge economy. Being a dynamic competitive and information-intensive industry, bankers should possess skills that include the identification of knowledge needs, distinguishing knowledge-management from information management which can facilitate a broader and more inclusive KM initiative. This could result in the development of a KM framework for sharing institutional practices that include all employees – an important component of a KM strategy. From the findings presented in this study, it is recommended that the low level of KM practices at selected banks would be mitigated if there were clear KM policies and plans in place. From a structural perspective, it is recommended that the position of chief knowledge officer be established to formulate KM policies and drive all KM initiatives.

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Authors' contributions

Both J.C. (University of South Africa) and P.N. (University of South Africa) conceptualised the study and then the first author did the research as part of his PhD study. Both authors were involved in writing up of the article and dealing with comments from the reviewers and the Editorial Board.

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