THE INTERFACE BETWEEN KNOWLEDGE MANAGEMENT AND HUMAN RESOURCES: A QUALITATIVE STUDY

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ABSTRACT

The aim of the study is to obtain new insight into the phenomenon of knowledge management (KM) in modern day organisations and the role Human Resources (HR) may play in facilitating access to knowledge via knowledge holders with the intention of contributing to theoretical and practical use within the South African context. A qualitative methodology, specifically the grounded theory approach was followed in developing the theory. The importance of organisational knowledge, management of knowledge and linking people to share knowledge were found particularly prominent in influencing the role HR plays in relation to and in support of KM in organisations. This triad formed the foundation for the theory revealing the changed role of HR to create opportunities for and linking people with one another to share knowledge.

OPSOMMING

Die studie het ten doel om binne die Suid Afrikaanse konteks nuwe praktiese en teoretiese insig te bekom rakende kennisbestuur in moderne organisasies en die rol wat die Menslike Hulpbron (MH) funksie kan speel in die fasilitering van toegang tot kennis deur middel van werknemers. Daar is van 'n kwalitatiewe metodologiese benadering, meer spesifiek die begronde teorie gebruik gemaak in die ontwikkeling van die teorie. Die belangrikheid van organisasie-kennis, kennisbestuur en die byeenbring van mense om kennis te deel het 'n betekenisvolle invloed op die rol wat MH speel ten opsigte van en ter ondersteuning van kennisbestuur. Hierdie drietal het die basis vir die teorie gevorm wat die veranderde rol van MH uitwys synde gerig op die fasilitering van kennisdeling deur die byeenbring van mense en die skepping van geleenthede.

The shift from industrialised economies and natural resources to intellectual capital, have forced executives to re-examine the role knowledge plays in organisations and how it is used. The management of knowledge has increasingly surfaced to become a leveraging mechanism, providing an important competitive edge within organisations. The key purpose of knowledge management (KM) is supporting continuous learning within the organisation in order to improve the ability to cope with constant changes in the market. Consequently KM is seen as an intentional approach aimed at eliciting required knowledge from knowledgeable people, sharing it with appropriate people at the right time and putting that knowledge into action to improve organisational performance. KM entails a complex process affected by several variables both within and outside the organisation. Finally, for KM to be effective, a holistic approach needs to be followed supported by a strong and aligned foundation of enablers, inter alia Human Resources (HR).

However, at the outset, information technology overshadowed HR in respect of KM in the organisation, almost claiming the role of sole driver. In spite of huge sums of money being spent on IT systems and infrastructure, an insignificant correlation between an organisation's IT expenditure and its financial performance was found thus far (Davenport, 2000). The reason for this is a general disregard of the human side of the information equation in most IT programmes that "*take little account of what information people want or need and how they use it*" (Davenport, 2000, p. 9). Experience has since proved that knowledge is created via the interaction of humans using certain tools or mediums. According to Boshyk, "*the concepts of knowledge management are essentially people-focussed and technology enabled, not technology driven*" (2000, p. 52). Even though people hold the key to valuable knowledge, this linkage of people to knowledge is not generally realised or applied. The study strives to obtain new

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insight into the phenomenon of organisational KM and the supportive role HR could play in this regard. The primary focus of this study is what role HR could play in augmenting access to knowledge via knowledge holders (employees). It goes almost without saying that if an organisation could be positioned to unleash the knowledge already in its midst, its position would be strengthened substantially.

RESEARCH DESIGN

Research methodology
Research Setting and Participants
To focus the study and execute it within time and financial constraints, only selected individuals situated in South Africa's Gauteng Province was included. The study's unit of analysis was individuals, via knowledge managers in organisations or individuals knowledgeable on the topic. The sample was relatively small due to the limited number of individuals knowledgeable on the topic and organisations who have attained success in this area. English and Afrikaans speaking participants of both gender groups participated in the study. All participants held post-graduate qualifications and have had extensive exposure to the corporate world, both nationally and internationally. Participants were either self-employed or occupied senior positions in companies within the private sector.

Data collection method
To determine the viability of the study a pilot study was conducted and literature on the topic studied to obtain clarity on the relevant terminology. Three preliminary interviews were conducted during the viability study, followed by seven focussed interviews for the main study. The qualitative selection procedure was theoretical sampling and the method of sampling employed was snowball or chain sampling, where cases of interest were identified *"from people who know people who know what cases are information rich"* (Denzin & Lincoln, 1994, p. 28). Multimethods were employed in the research, with unstructured in-depth interviews as the principal method

of data collection supported by participant observation. The study took place in the actual/natural work setting of the participants where rich insider data was solicited in order to explore, describe and comprehend the dynamics of the situation and the meanings attributed to it. Short notes were made during the interviews and field-notes compiled after each interview. These, as well as audio tape recordings were analysed, stored and safeguarded.

Execution
Qualitative research methods were used in the study to discover, describe and move towards an understanding of the participants' social construction of KM and HR. The tradition of **grounded theory (GT)** was employed being "*a qualitative research method that uses a systematic set of procedures to develop an inductively derived grounded theory about a phenomenon*" (Strauss & Corbin, 1990, p. 24). The GT approach consists of data collection, note taking, coding, memoing, sorting and report writing and the objective is to intimately link the research to the reality of the participants and to allow the findings to emerge from the words spoken by the participants. The approach does not test a hypothesis; it sets out to find which theory accounts for the research situation as it is. Data analysis was performed following the **constant comparative method** (Glaser & Straus, 1967) being a set of structured and systematic procedures that involves the concurrent collection and analyses of data. Coding strategies were utilised to break down the qualitative data that were grouped into meaningful units and labelled in order to generate concepts. These concepts were grouped into descriptive categories or themes and re-evaluated for meaningful interrelationships and recurring themes which led to the evolving of gradually higher order categories necessary for theory construction.

Ethical and professional considerations were adhered to and decisions taken complied with the existing rules governing the relationship between the researcher and his or her research participants and the entire research process. This in particular refers to the researcher's "*obligations or responsibilities towards the practice of science (professional ethics), society, the subjects of science and the environment*" governing the study (Mouton 2002, p. 239). As far as data analysis is concerned, the GT approach provided a set of clearly defined steps that was followed in order to gather data on the participants' construction of reality as well as to reach an understanding thereof. **Trustworthiness** of the study was established by providing a detailed overview, examples and excerpts of the application of the GT approach[1]. To avoid undue subjectivity, personal discipline was exercised together with rigorous examination for personal bias at each stage of the research process. The discussion of the results is based on the interview data and provides an authentic synopsis on how the participants viewed the concepts and ensures that the emerging theory can indeed be traced back to the data.

RESULTS

As depicted in Figure 1, three themes namely that of **the Organisation**, **Human Resources** and **Knowledge Management** were found relevant in the role HR plays in relation to and in support of KM in the organisation. Categories developed from each of these themes were *the importance of organisational knowledge* and *knowledge must be managed*, for the current and future existence of the knowledge organisation. *Link people to share knowledge* surfaced as the core category (the category that appears central) in the study. The various categories and their links to the core category provided the theory.

1 For a comprehensive exposition of GT, interested readers are requested to consult Smith (2004).

Figure 1: Emerging categories and properties from the data analysis

The organisational context

Although the study focused on the areas of HR and KM, it soon became clear that these two areas could not be disengaged from the bigger environment, *vide* that of the organisation. From the interview data, it is clear that the organisational context plays a critical role in providing the environment and shaping the application of both HR and KM. The following six concepts were elicited:

● *Organisational strategy*. The importance of strategic planning was reiterated and furthermore that KM in an organisation should be linked to and support the overall organisational strategy. This strategic intent and business focus of the organisation would require the availability of specific and current knowledge as well as dictating what knowledge is required to sustain the intended strategy in future. The more effectively organisational knowledge is harnessed and utilised, the better it can support the organisational strategy, necessitating the development and implementation of a knowledge strategy.

● *Organisational culture*. KM is about sharing and everybody in the organisation should be involved in the application and practicing thereof. By incorporating KM as part of the business process, it becomes an essential part of the way things are done in a particular organisation and are infused in the overriding culture, but if there is no cooperative and sharing culture, knowledge will pass unrecognised and under-utilised.

● *Management involvement*. Successful KM is reliant on senior management's understanding of the benefits of internal knowledge and how they see it unfolding in the organisation. From management's side a common vision in relation to KM needs to be conveyed, and their commitment to, support of and involvement in the KM process visually displayed.

● *Organisational structure*. An organisation's knowledge base should be seen as a valuable asset and managed accordingly, influencing organisational structures and affecting organisational change and development. This requires different approaches, as well as structural, paradigm and behavioural changes in people and the organisation where each business unit should take ownership of the knowledge in their midst and optimally manage it to improve performance. The work environment needs to be restructured and reorganised to ease access to and link employees with one another to provide for knowledge sharing. The creation and implementation of units of work, projects, teams and communities of practice are aimed at connecting people to share information and best practices.

● *The knowledge organisation*. Knowledge/modern organisations are confronted with constant and rapidly changing circumstances underscoring the concept of the learning organisation, continuous development and innovation. The

knowledge organisation also opened a new and different working environment, requiring different skills, behaviour and expectations from employees and management alike.

- *Organisational knowledge*. An organisation's knowledge is the hub where knowledge is contributed to and accessed to execute business processes as well as current and future strategies. Organisations need to know what knowledge resides in the organisation and it requires the identification and 'mapping' of knowledge and knowledge holders. Organisations should decide on the essential knowledge required for core business processes and in support of the organisation's strategy and refrain from capturing unnecessary knowledge.

The Human Resources context

From the interview data, ten concepts came to the fore. One concept that stood out as the linchpin is a 'sharing culture within a trusting environment'. This finding is not surprising since the presiding culture and environment where sharing takes place form the basis for and inform all other activities. The relationships between the concepts are dynamic and interconnected, eventually functioning as a system in symbiosis. Optimal functioning within the HR context will be limited when there is no synergy between the various HR concepts as well as with the other two related themes (Organisational and KM contexts).

- *Role and function of HR*. Knowledge and knowledge workers have become the most important resource or asset in the knowledge intensive organisation. This focus on knowledge changed the role and position of HR from personnel administrator to one of strategic role player and asset manager. However, HR principles remained the same, HR is still responsible for human resource/capital management in the organisation.
- *People (human capital) management*. Accompanied by the rise in the modern economy, a new/different focus on the employee and its value to the organisation has arrived. Knowledge workers have to be managed differently and in such a manner that access to the knowledge asset can be secured. Knowledge workers also have different needs, and opportunities should be availed for innovative and independent thinking and individualism should be encouraged.
- *Recruitment*. Knowledge organisations need workers with different skills and perspectives, resulting in different recruitment and selection strategies. The focus is on the employment of 'smart' and resilient people who are innovative and curious and have the ability to work in teams or groups with the aim of sharing expertise.
- *Retaining knowledge and knowledge workers*. HR has an important role to play in developing strategies, measures and policies to retain particular knowledge workers and their knowledge. A challenge is the creation of an intellectually stimulating and challenging working environment, focussing on continuous learning, innovation and the intellectual growth and development of employees. Another challenge is implementing effective knowledge transfer methods e.g. mentorship and pre-retirement programs.
- *Measuring and managing performance*. The measuring of especially tacit knowledge is difficult and measurement tools should be organisation specific, linked to the overall organisational strategy and knowledge requirements, and specified in the individual's job description and performance agreement. Financial rewards are not necessarily the best choice as knowledge workers tend to value non-financial incentives e.g. overt recognition as important.
- *Sharing culture within a trusting environment*. Knowledge sharing does not come naturally, but within a safe and trusting environment, the spontaneous sharing of knowledge will occur more readily, thereby establishing an alignment between the overriding culture and the behaviour of sharing. Time, opportunities, structures, policies, and procedures need to be established and aligned with the aim to connect

people and encourage them to start talking to one another. Due to the volume of knowledge, it needs to be extracted and validated and this should ideally take place within a setting where people trust one another.

- *Training and development*. Knowledge organisations are focussed on continuous learning, development and innovation, this requires developing and training workers for a different working environment. Workers furthermore require different skills in the knowledge organisation and need to be trained and developed in *inter alia* what, when, how and where to share, access and use knowledge. KM involves continued learning from other either via observation, learning from experience (sharing of lessons learned and best ways of task performance), learning from experts, mentorship programs and storytelling.
- *Change management*. KM and the concept of knowledge sharing necessitate a change in the familiar ways of doing, i.e. management perspectives, behaviour as well as mind and paradigm adjustments. HR notably plays an important role in managing the change surrounding the implementation of a KM approach, not only to address the people issue, but also to redesign processes and procedures to assist the organisation in utilising its assets optimally.
- *Processes (course or progress) and procedure (way things are done)*. Processes and procedures have to be developed to connect people with one another to enable knowledge sharing and to ensure that KM eventually becomes part of organisational business processes, requiring the optimal alignment of people, technology and business processes.
- *Policies*. HR as driver of organisational policies has an important role to play in the development of KM related policies and in ensuring process alignment and adherence to policies and procedure.

The Knowledge Management context

Three concepts emanated from the interview data. Striking is the increased focus on intangibles i.e. knowledge that replaced tangible assets and that has to be unlocked, optimised and actively managed.

- *Understanding the concept 'Knowledge Management'*. KM is neither information nor document management and its measurement is difficult. KM is still a novelty in some organisations and there is a need for practical lessons learned. The term 'Knowledge Management' is limiting and not descriptive since knowledge cannot be managed; only the people possessing it. KM infused new organisational processes and practices and had an impact on organisations' functioning and social aspects.
- *KM's function in organisations*. Organisations that are serious about KM require the development and implementation of an integrated KM strategy with a definite focus that is linked to the organisational strategy and organisational processes. KM should be part of the organisation's everyday functioning where everyone understands its importance and takes ownership of it. The identification of organisational knowledge also includes locating knowledge experts and all of this has to be captured and customised according to the organisation's strategic needs and circumstances.
- *KM and the employee*. KM becomes a collective responsibility not only to share and contribute to the knowledge base, but also to utilise it. KM should be linked to bigger business processes and form part of each employees' role and function and formalised in e.g. job descriptions and performance agreements.

DISCUSSION

Knowledge and the knowledge organisation

Global competition and competing economies forced many organisations to change their accustomed ways of doing, demanding a focussed strategy and innovative thinking and processes to remain in the forefront (O'Driscoll, 2001, Gratton,

2003). Due to a scarcity in natural resources, modern or knowledge organisations increasingly depend on the knowledge contained in the organisation to succeed and remain competitive (Boshyk, 2000, Davenport & Prusak, 2000, O'Driscoll 2001 & Gratton, 2003), necessitating the sharing of knowledge across boundaries and between different cultures (Andrew, 1999a, Brelade & Harman, 2000). Modern organisations have become highly knowledge-intensive with KM becoming an essential function in modern and big organisations. Knowledge, and subsequently managing it, should have a broad impact on the organisation and for this reason it needs to be either integrated with the organisation's strategic direction, or take the existing strategy in a new direction.

In addition to collecting knowledge, knowledge should also be converted into action since knowledge and information are of limited value unless purposefully applied – "*action or the ability to take action is what makes knowledge valuable*" (Rumizen, 2002, p. 6 & p. 8). This shifts the focus beyond the mere sharing of knowledge towards the creative and innovative use of internal knowledge. The creative use of knowledge requires a re-evaluation of the manner in which the organisation utilises information and knowledge, moving towards applying knowledge in innovative ways, breaking away from traditional and outdated habits, structures, processes, procedures and prescriptive intellectual paradigms. Managing knowledge production and application, necessitates the coordination of a variety of processes and procedures, the involvement and support of management as well as the co-operation and buy-in of employees.

The role of technology

In facilitating KM practices, technology is used as an enabler to ensure that relevant information is widely available with minimum delays in time and cost. The use of technology particularly as recording medium comes into play since "*between 60 to 80 percent of an enterprise's information is non-structured, generated during a business process but unrecorded*" (De Klerk, 1999, p. 13). This underscores the importance of capturing, structuring and packaging corporate brainpower in a structured data environment from where it could be made more widely accessible to employees; hence enhancing knowledge sharing, enabling knowledge retention, allowing collective knowledge growth, the shortening of lead times and improving productivity. This again emphasises the necessity of a technology component linked to KM, e.g. data warehouses, workstations, networks, databases, search engines, browser access to back-end systems, and software application tools. Such a database ought to be developed to ease access to knowledge experts, capture knowledge, contain knowledge that is of strategic value and beneficial to the organisation's business, and improve services and processes. In addition knowledge must be updated continually.

It is important to bear in mind that the focus of technology should not be on storage per se, but on connecting people with one another, e.g. knowledge maps or Corporate Yellow Pages. It is furthermore advisable that a uniform and standardised set of desktop applications is implemented to enhance the exchange of documents and communication. When organisations decide to apply KM principles, they have to consider their current IT infrastructure and particularly the level of IT literacy. In investigating and considering means to share tacit knowledge, organisations need to become innovative and should develop methods to unlock such knowledge without suppressing it with complex technology neither understood nor applied.

The role of HR in relation to KM

The present study acknowledges the fact that KM is crucial in the knowledge/modern organisation and that knowledge originates and resides in human beings. It is therefore a "*misnomer to say that we manage knowledge. We cannot manage what happens in people's brains, and it is presumptuous to say we can manage people's thought processes*" (Koulopoulos & Frappaolo, 2000, p.18). These assumptions represent the starting-point for HR, namely the effective management of people so that their knowledge is made available to the organisation. The aim should be to encourage the extraction and sharing of knowledge by creating dynamic connections and using technology to link knowledge and people within the working environment. In this respect the focus is not as such on the management of knowledge per se, but on creating an enabling environment with optimal circumstances and mechanisms that could facilitate the generation and flow of knowledge throughout the organisation. This represents a continuous circle where each part plays an important role and therefore the need to integrate KM and HR management initiatives within the organisation, and more importantly, to identify and understand the role HR can play in strengthening the organisation's knowledge.

Literature and interview data acknowledge that human capital (the combined talents/mindsets, skills and knowledge of employees to provide customer solutions (Saint-Onge, 1996, Stewart, 2001)) have become a pivotal role player in knowledge organisations. This leads to HR's role and function becoming the steward of human capital, entrusted with the responsibility of managing and optimising the human asset component in knowledge organisations. To give effect to this role, HR has to perform various roles including that of **strategic partner, knowledge facilitator, HR management expert and change agent**.

HR as strategic partner
The change from industrial to modern/knowledge organisations has caused a paradigm shift on all conceivable levels. Not only has it influenced organisations, labour and employees, but on HR as well. Nowadays HR is increasingly recognised as a pro-active and strategic role player in the organisation (Becker & Huselid, 1999). Additionally, as implementer of the organisational strategy and being guided by it, HR is unquestionably linked to the organisation's strategy and future intent, "*Human Resources (increasingly) has to take on a more strategic role moving away from its focus on exclusively people and talent to helping line management building capabilities to grow the business*" (Ulrich, 2002, p. 12).

HR has progressed from an administrative function, typically regarded as a cost centre, to become a pro-active and strategic role player that has to ensure that the organisation is equipped with the right 'assets' (employees). HR has to turn into a business partner adding value by building and unleashing employee capabilities to develop the business. This calls for a review of HR's mandate, an expansion of its traditional boundaries, and its subsequent acceptance of a new role. Focusing on business level outcomes, HR requires a fundamental understanding of the organisation's asset base as well as the ability of identifying unexploited assets which may very well limit its capability in achieving business goals. Implementing its strategic partnership role requires innovative practices on the part of HR practitioners. HR practitioners need to be competent not only in functional human resource management (HRM) expertise, but also conversant with the organisation's strategy, business dynamics, systems, processes, change management and KM.

Although the term 'employees are our biggest asset' has been omnipresent for some time, it has become all the more pertinent, not because of what employees can do but for the knowledge they possess. To comply fully with the role as asset manager, it has become essential that HR should form part of strategic management teams in order to understand the direction in which organisations are moving and to position itself to meet both present and future staffing needs. To address staffing needs at the appropriate time, HR not only

has to latch on to organisations' vision and strategy, but also has to appreciate and be fully acquainted with the various businesses and processes. This requires HR to familiarise itself with existing organisational knowledge/skills bases, being conversant with the knowledge required by them, being informed on the availability of and accessibility to the possessors of this knowledge and where to locate them. This role involves more than mere forecasting, staffing, maintenance, training and development. It also entails a strategising and advisory function, e.g. when the organisation plans to move in a new direction, HR in particular has to advise on the feasibility of such a step, based on their inherent knowledge of the internal knowledge base, the external knowledge market and the availability of specialised knowledge sources.

Acknowledging the importance of knowledge and employees as strategic assets in organisations undeniably changes the manner in which employees are viewed and managed. This has undeniably changed the role of and how the employee is viewed and managed, which, in turn, requires that HR practices need to change and adapt in order to build an employee value proposition. Knowledge workers have diverse needs and prefer an environment that best suits their way of working and particular style. Such an environment concentrates on employee satisfaction where a challenging job, exposure to new technology, career opportunities, work environment and on-the-job training are rated more important than money (Andrew, 1999b). This has implications for both management principles and practices since "*the knowledge economy has drastically changed many traditional business and human resource management concepts and we are beginning to see the evolution of new and different management styles to accommodate the new work environment*" (Andrew, 1999b, p. 64). Furthermore, this could include a clear sense of purpose, caring management, flexible benefits, open communications, an enjoyable work environment, performance management, reward, recognition, training and development (Probart, 2002).

HR as knowledge facilitator
Reaching those who have the necessary knowledge and willingness to share it is certainly one of the biggest challenges facing HR. One of the most prominent roles of HR in knowledge organisations is subsequently that of knowledge facilitator. The crux of knowledge sharing and transfer strategies does not entail the collection and dissemination of information, but rather the creation and maintenance of an enabling environment as well as linking knowledge workers with one another to share knowledge. Creating a stable and trusting internal working environment, accompanied by low fear and high trust levels, could improve knowledge sharing and validation, whether in a one-on-one relationship or within groups.

The level of trust in an organisation represents a major factor that not only determines the extent of knowledge sharing, but also the prospect of value creation (Saint-Onge, 1996). Mutual trust is at the heart of knowledge exchange and no knowledge market can operate effectively without it. "*Trust can defeat other factors that positively affect the efficiency of knowledge markets. Without trust, knowledge initiatives will fail, regardless of how thoroughly they are supported by technology and rhetoric and even if the survival of the organization depends on effective knowledge transfer*" (Davenport & Prusak, 2000, p. 34). Relationships will therefore not flourish in organisations infused with untrustworthy behaviour, mistrust, envy, competition amongst employees, and negative attitudes. Trust is not developed instantly and must be demonstrated in a visible and direct manner. Employees must witness trust in the acknowledgement of knowledge sharing, which should commence from top management level and flow downward through the organisation. In Karl-Erik Sveiby's words: "*Trust is the bandwidth of communication*" (Van der Westhuizen, 1999, 52). Evidence from both the literature and the interviews

underscores that employee commitment and trust levels are not likely to emerge unless "*employees are treated with respect and are provided with job security, a share of the economic benefits, significant opportunities for skills development and substantive participation in decisions*" (Porth, McCall & Bausch, 1999, p. 216). Subsequently trust has replaced traditional binding and employment-enforcing contracts, which now need to be reflected in organisational policies and procedures. We foresee trust becoming an even more important factor in future business. Trust and personal contact are intimately related and for this reason it is important to establish how individuals respond to and interact with fellow employees. In order to optimise the fine balance between individuals, organisations need to return to and instil basic humaneness – being more caring and co-operative towards one another, and more inclined to share knowledge with others. Von Krogh, Ichijo and Nonaka (2000) regard care as the essence of knowledge enabling and this requires a new generation of managers where 'care' becomes part of their agendas. More specifically, HR needs to understand when, why, where, and how people interact with each other and they should create opportunities to foster empathy and care in organisational relationships.

The importance of integrating KM and more specifically knowledge sharing as part of the overall organisational culture is underscored by both literature and interview data. The management of culture is one of the additional HRM practices and "*HR professional need to understand that they are the keepers of the culture and that their impact reaches well beyond their functional boundaries*" (Becker, Huselid & Ulrich, 2001, p. 160). A collaborative and sharing culture is not established overnight and naturally has to be sustained. "*Cultural factors usually entail long-term change, and probably will hinge on the types of people a company hires and the reasons they come to work there in the first place. In the short term, however, a firm can begin to foster a knowledge culture in part through such means as education, incentive programs and management example*" (Davenport & Prusak, 2000, p. 115). In such a culture, a sense of mutual obligation reigns where employees help one another with these efforts eventually becoming a self-perpetuating cycle. A sharing culture is inter alia enhanced when employees have a positive orientation towards knowledge and are intellectually curious. This is linked clearly to the type of employees attracted, recruited, appointed, and retained by organisations. Such employees are furthermore eager, and should be encouraged to explore new knowledge within a learning and flexible atmosphere where they can examine and share ideas. Management also needs to acknowledge employees' knowledge-creating activities by means of a fair and consistent incentive and reward system/program. Additionally, care should be taken that the effect are minimised of possible factors that could inhibit the sharing of knowledge, e.g. imprudent downsizing and hostile mergers and/or acquisitions shown to have inhibited knowledge sharing (Von Krogh *et al.*, 2000).

Human Resource Management in knowledge organisations
Effective KM subsequently calls for the successful management of an organisation's human resources. Organisations that value innovation as a growth factor have instilled rigorous selection processes, supported by internal career opportunities, formal training systems, appraisal measures, employee involvement, and secure employment (Gratton, 2003). There is general agreement that knowledge-driven organisations can increase their potential value through equipping themselves with not only the most suitable, but also the right candidate.

The role of HR in the staffing process has become significant not only in who should be appointed but also as to how recruitment needs to take place within knowledge organisations. This is implemented by marketing the organisation in order to attract desirable candidates, ensuring

that the right knowledge workers are recruited and placed within a suitable work environment, thus encouraging them to share their knowledge with their colleagues. "*The financial investment in the recruitment of new human capital can return immediate value if you are able to recruit staff who possess knowledge that does not already reside in the organisation*" (Gray, 2001, p. 38). This will also lead to a more flexible recruitment process, where the urge is no longer on filling jobs, but "*to hire people who already have the needed skills*" (Foley Curley & Kivowitz, 2001, p. 58). This process requires the identification of the required skills and knowledge gaps and then establishing a program that will attract committed people with desirable competences, and place them in the right places, for the right duration and at the right cost (Walker & Perrin, 2001). Consequently, the primary focus should be on employing open-minded employees who display lateral thinking, have the ability to work in teams or groups and are willing to share their knowledge and expertise. To keep pace with the changes in the working environment, knowledge workers should show a willingness to grow and develop, as well as the need to be flexible, innovative, and creative in their thinking. Furthermore, they must apply knowledge in task execution, have the capacity to learn new skills continuously and adapt to a variety of circumstances and cultures.

The recruitment and selection of the desired employees should be supported by initiatives and measures to retain knowledge workers, to utilise their skills and knowledge optimally and to expand on existing knowledge levels. Knowledge workers have a different view of work and the organisation with an increased "*strive for quality of life, community, self fulfilment and higher order values*" (Verwey, 2003, p. 9). In accommodating and retaining them, alternatives need to be found which would enable individuals to meet their personal aspirations as well as to make choices that would suit their personal life styles, which vary according to different life stages (Probart, 2002, Verwey, 2003). Retention programs aimed at addressing individual employee requirements are becoming increasingly important with a change in working environment as well as management styles. This could open up various changes in HR practices, processes, and procedures, e.g. greater flexibility in work schedules, pleasant working conditions, changes in psychological contracts and job descriptions. Therefore, in retaining organisational knowledge, particular attention should be paid to succession planning, pre-retirees, downsizing and retrenchments. In order to address these strategic staffing/knowledge needs, HR practitioners need to be conversant with the organisation's strategy and business as well as understand the justification for specific recruitment and retention needs.

Knowledge organisations depend on knowledge sharing and for that reason should encourage, acknowledge and recognise those employees who contribute to and use its knowledge base. This necessitates that tools and measures employed to assess performance should be objective, trustworthy and have a clear link with both strategy and valued knowledge. Organisations should be aware that various employees view rewards differently, placing high value on being recognised as a knowledge expert. Thus, to support effective KM, performance management should include both financial and non-financial rewards. More specifically, performance management should tie in with the sharing and learning culture where the focus is on continuous improvement, innovation and creativity. In cases where experimentation and discovery give rise to new ideas and products, the development of exploratory learning should be encouraged. These steps would entail that organisations and management tolerate mistakes and failures as part of a learning process. "*Appraisal systems need to measure not only outcomes but also the modus operandi of the new idea originators and developers*" (Narasimha, 2000, p. 129). Knowledge creation and sharing of course, do not count for much if the knowledge that an employee harnesses is not

manifested in behaviour. For this reason performance management systems should focus on "*what is learned and how that learning is applied*" in reaching individual as well as organisational objectives (Narasimha, 2000, p. 130). Measuring tacit knowledge, although difficult, can be conducted by evaluating explicit demonstrations in the form of contributions made to knowledge sharing and assessing the degree to which employees succeed in exploiting their knowledge competence in terms of breadth, depth, diversity, and innovation. Clearly, HR has an important role to play not only with regard to designing and developing performance management systems, but also in equipping management to assess knowledge workers' performance.

The role and responsibilities of HR regarding both formal and informal training and development have increased in knowledge organisations where skills and competencies of workers require continual expansion and improvement to maintain set levels of performance and productivity. Training initiatives have for a number of years focussed primarily on individuals in a formalised setting. Within knowledge organisations, the focus has shifted to continual learning. This implies that training interventions have to be adapted in order to provide for other means of acquiring skills emphasising communal learning. In knowledge organisations, learning, either by means of mentorship, on-the-job-training, or in communities of practice, has become a communal activity where knowledge and information is exchanged between employees in a more informal environment or within the work environment (Walker & Perrin, 2001, Wenger, McDermott & Snyder, 2002). Partnerships, communities of practice, peer assistance, mentoring, or apprenticeship relationships are regarded as effective ways to enable people to talk and listen to each other. Organisations should realise that opportunities for knowledge creation are lost when space for appropriate learning activities is not created. In spite of tight work-schedules, official time should be made available for knowledge workers to impart what they know, utilise knowledge and/or search for what others know. It can be accepted that knowledge workers will barely contribute to a system if they have to do this in their 'own' time. "*Time is the main enemy of knowledge management, followed closely by fears of abuse, and, at a distance, by the more common desire to retain power*" (Snowden, 2003, p. 25).

Consequently, learning becomes part of everyday organisational processes, with a higher onus being placed on employees taking responsibility for their own learning. This obviously requires a paradigm shift by employees, management and HR that has always been regarded as the primary provider of training in the organisation. Furthermore, employees need to learn how to locate, extract and use knowledge optimally. In particular, they should learn what knowledge has to be captured in the knowledge base and how this should be done to ease future access.

HR as change agent
KM and the concept of knowledge sharing have instilled a new approach and practices in organisations. Therefore, not only will processes and procedures need to be changed, but behavioural and paradigm adjustments will have to be made. Van der Westhuizen is of the opinion that KM should be seen as a 'change management term' where it is regarded as a "*messenger that brings us tiding of a new era of organisational design, an era where vague outlines may already be seen*" (2002, p. 94). Due to HR's strategic position and influence it can either be a hindrance or enabler of rapid organisational change. Therefore it is important that HR is not only positioned as part of organisational strategy, but also of organisational change initiatives.

The need for continuous innovation and creativity clearly demands a change both in management styles and the working environment to provide for, encourage, and recognise

different thinking styles. Meeting this need necessitates different managerial approaches, since strict command and control approaches will only restrain explorative thinking. In addition provision needs to be made for an environment that fosters the discussion of ideas, innovative thinking, experimenting with new ideas, and even providing room for trial and error. One such solution is communities of practice where employees could not only collaborate to share and validate knowledge, but also enhance the organisation's knowledge base. It is reasonable to expect that increasingly one will witness a change in organisational structures, working environments and employee demographics to accommodate skilled knowledge workers. Additionally it can be expected that knowledge workers would consequently require and be granted more freedom as to how they arrange and accomplish their work life.

Conclusion

This study stresses the importance of the relationship between and dependence of KM on human resources in business organisations. This is in agreement with Davenport and Prusak who note: "*One of the heartening things we have recently observed is the increased interest in knowledge management among human resource managers. We interpret this as a sign that organizations are realizing the vital connection between knowledge-oriented behaviour and overall employee performance*" (2000, p. xiii). Although we find it inspiring to note that HR as important and strategic role player is now at last starting to get the recognition it deserves in South Africa, we believe that a level of ignorance remains regarding the value of human knowledge and the role HR can play in this regard. We therefore recommend that the basic principles of HRM be included as subject matter in the curriculum of and training of KM practitioners and vice versa. Furthermore, since knowledge has become the crux for organisational performance, we suggest that KM be included in all management and leadership training courses and studies. The fact that a few local academic institutions are moving in that direction is welcomed.

While we highlighted the importance of HR's in relation to KM, it is not clear whether HR sufficiently adjusted to this role and function, and more importantly, whether it has enhanced knowledge sharing and enabling in knowledge organisations. Additionally it may be argued that accepting a role is one thing, being equipped to perform it is quite another. In knowledge organisations HR practitioners are no longer implementers of instructions, but have become process owners who have to identify, locate, and enhance asset bases in organisations. This implies that HR, and specifically HR practitioners, can no longer be trained only in and exposed to HR specific theory and principles; their academic background should be extended to include broader business, strategic, organisational development and change management issues.

The findings of the study touch upon a variety of disciplines and should have some implications for inter alia future working environments, management practices and organisational culture. While various areas for future research can certainly be identified, we want to stress that the role of management in the knowledge organisation should receive further investigation. This has certain implications for the training and appointment of managers, where an open-minded view, flexibility in approach and the ability to relate to and manage diverse people will become discerning factors.

If one looks at the demands placed on knowledge organisations and knowledge workers, in particular thinking abilities, one can predict, with relative certainty that the need for creative and innovative thinking will increase in future. We believe that this claim entails distinct implications for the development of such skills and requires a change in education on primary, secondary and tertiary levels, placing more emphasis on fostering

innovative and creative thinking. Furthermore, this requires more in-depth study of the most feasible methods and practices to develop such skills.

This leads us to the knowledge worker, who has a certain value and worth to offer but also demands a balance in his/her work and life. Flexibility in processes and procedures needs to be instilled in order to accommodate the needs of knowledge workers, with the crux centring on product delivery and not so much being present at the office. This we believe will demand organisations adapting their perceptions of employees as valuable assets and to a lesser extent as mere workers. The knowledge worker conversely has to ensure that his/her inherent worth remains valued, necessitating continuous up-skilling and development. Knowledge workers should understand that employment can no longer be guaranteed and that they have become the custodians of their own careers and progression. They also need to realise that they are recruited based on their intrinsic knowledge which they have to share with others, necessitating abilities to share and collaborate with others and requiring a change in the behavioural patterns of people who hoard knowledge.

Due to time and financial constraints the study was conducted in Gauteng Province only. A wider array of participant viewpoints could have been collected if a bigger sample could have been included in the study. Due to the complexity of the GT approach it is advisable that future researchers should have experience of and exposure to this approach and demonstrate certain qualities e.g. interview skills before embarking on this approach.

Within the knowledge organisation, HR and KM portray significantly common characteristics with both focussing on harnessing available knowledge assets, optimally utilising them, and preventing them from flowing out of the organisation. Until organisations recognise the fact that they are literally sitting on a goldmine, knowledge, we believe KM and subsequently the role that HR plays in this regard will not receive the attention it deserves. Those organisations that were smart enough to recognise this value and utilise it, are already, and deserve to be reaping the benefits of their foresight!

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