The Strategic Significance of Intellectual Capital Information in Annual Reporting

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Abstract:

The disclosure of information on organisational knowledge resources and related knowledge management activities in annual reports has become a much-debated issue within the intellectual capital (IC) discourse. This paper discusses the disclosure of IC information, and in particularly human capital information, in an Australian public sector organisation’s annual reports. It contrasts and compares the case study organisation’s internal IC management issues and practices with its external IC reporting practices.

The empirical analysis demonstrates inconsistency between the organisation’s internal IC management issues and practices and its external IC reporting practices. It shows that strategically important information about the organisation’s management challenges, knowledge resources, knowledge management activities and IC indicators was not disclosed to external stakeholders in the organisation’s annual reports. The study exemplifies the significance of the provision of information on IC and, in particular human capital, and highlights to public policy makers the relevance of extending existing reporting policies to incorporate disclosure requirements for IC information.

Keywords: Human Capital, Annual Reporting, Intellectual Capital, Knowledge Management, Public Sector
The Strategic Significance of Human Capital Information in Annual Reporting

1. Introduction

Recent decades have witnessed the development of a new industrial age, marked by a surge in service-based industries, the rise of the network society, being digital, virtual and interconnected and the emergence of knowledge as a key determinant of economic growth (Petty and Guthrie, 2000; Ordonez de Pablos, 2002; Fincham and Roslender, 2003). The shift towards a knowledge-intensive economy is transforming the dynamics of the contemporary business environment and calls for new strategies for organisational value creation. At a firm level, it is changing the composition of organisational resources, making knowledge resources such as customer relationships, inter-firm alliances, innovation, employee know-how and competencies take precedence over traditional physical resources in the pursuit of competitive advantage (Marr, Schiuma and Neely, 2004).

However, despite the acknowledgement of the growing importance of organisational knowledge resources, public policies, in most countries, do not require organisations to disclose information about their knowledge resources and related knowledge management (KM) activities in annual reports. This results in a lack of disclosure of information on strategically significant organisational resources and activities. In the UK, Holland (2002, p. 43) found that private information not reported in annual reports contributes between 25 and 50 per cent of the relevant information used by Fund Managers in company valuations. In Australia, Guthrie and Petty’s (2000, p. 241) study of intellectual capital (IC) reporting at nineteen organisations found that Australian organisations “do not compare favourably in their ability to measure and report their intellectual capital in annual reports”. In the US, Lev and Daum (2004, p. 112) call for “enhanced public disclosure about the amounts of, and in so far as possible, the outcomes produced by investments in intangibles”. In northern Europe, Mouritsen, Bukh and Marr (2004, p. 47) relate the content of annual reports to the knowledge economy and argue that the “value relevance of traditional annual reports is declining”. They (2004, p. 46) explain that “traditional financial statements do not provide the relevant information for managers or investors to understand how their resources – many of which are intangible – create value in the future”. Therefore, “for external communication purposes, additional kinds of reporting may be necessary” (Mouritsen, Bukh and Marr, 2004, p. 47).

This paper discusses the shortcomings of existing annual reports and provides empirical evidence to support the argument that the value relevance of annual reports is declining. It is based on an investigation of an Australian public sector organisation’s IC management, measurement and reporting (ICMMR) practices. The overarching research objective is to compare and contrast the organisation’s internal IC management issues and practices with its external IC reporting practices. This is achieved through: 1) an outline of the case study organisation’s strategic management challenges, the KM activities taken by the executive team to overcome these management challenges, and the IC indicators deployed to assess the performance and composition of the organisation’s knowledge resources and KM activities; 2) an
outline of the organisation’s reporting of its strategic management challenges, KM activities and IC indicators in its annual report; and 3) a discussion of the consistencies and inconsistencies between the organisation’s internal IC management issues and practices and external IC reporting practices.

The research objectives are facilitated by the Intellectual Capital Value Creation (ICVC) framework, which is utilised as an analytical model for investigating the organisation’s ICMMR practices (see, Boedker, Guthrie and Cuganesan, 2005). The ICVC was beneficial to the research team in that it made ‘visible’ the case study organisation’s knowledge resources and KM activities and facilitated the identification and assessment of the organisation’s knowledge management gaps.

The paper is structured as follows. Section 2 briefly introduces the case study organisation. Section 3 provides definitions of IC and KM and outlines the ICVC framework used to achieve the research objectives. Section 4 outlines and discusses the organisation’s three main strategic management challenges, KM activities and IC indicators. Section 5 outlines and discusses the reporting of information on the organisation’s three strategic management challenges, KM activities and IC indicators in its annual reports. Section 6 concludes the paper and summarises the consistencies and inconsistencies that exist between the organisation’s internal IC management issues and practices and its external IC reporting practices.

2. Case Study Organisation: New South Wales Department of Lands

The case study organisation is an Australian public sector organisation employing 1500 employees throughout the state of New South Wales (NSW). The organisation was created in April, 2003, at which time three previously separate operating divisions were consolidated into one department. The three operating divisions include:

- **Land and Property Information (LPI).** LPI is the provider of land and property information for NSW. LPI provides mapping, titling, valuation, survey and related land information services to individuals, businesses, government agencies and non profit organisations. It is the largest of the three divisions, employing approximately 900 out of 1500 employees. It is a Government Business Enterprise.

- **Crown Lands.** Crown Lands is responsible for the management of state land in the State of NSW. State land accounts for over half of all land in NSW, around 29mn hectares valued at over $8.3bn. Responsibilities include administration and management of land leases and licences, reserves and state parks, caravan parks and other uses. The division employs approximately 230 staff. Crown Lands is in the planning stage of becoming a Public Trading Enterprise, which is expected to commence in 2005.

- **Soil Services.** Soil Services is a specialist conservation earthmoving and soil consultancy business. Services include soil conservation earthworks and consultancy services, farm water supplies, soil and water testing and education and training. The division employs approximately 160 staff.
The motivations of the case study organisation to engage in the field study of its ICMMR practices were driven by changes in its operating environment pertaining to organisational restructuring, changing customer requirements, new public policy reforms and an ageing workforce. A key driver includes the implementation of market oriented performance management systems resulting from introduction of New Public Management reforms by NSW Treasury (see Guthrie, Parker and English, 2003). The case study organisation is consequently in the process of implementing Public Trading Enterprise structures and focuses much attention on improving organisational performance both in regards to cost savings and revenue development (Guthrie, Boedker and Cuganesan, 2004). These more stringent performance requirements stimulated senior management’s interest in identifying the value and significance of the organisation’s ‘invisible’, knowledge-based resources and making these known to external stakeholders and, in particular, to NSW Treasury. IC measurement and reporting were seen as a means to provide external stakeholders with a broader perspective on the organisation’s value creating abilities and activities and to demonstrate to Treasury, in particular, the significance of the organisation’s knowledge resources and KM activities, which thus far have not been captured in Budget Papers and financial accounting reports.

The executive team was also interested in examining the role, contribution and utilisation of the organisation’s knowledge resources and how these enhance or subtract from organisational value creation. This interest was driven by the need to better understand the performance of the organisation’s ‘invisible’ resources in order to improve resource allocation, increase the effectiveness of capital and ensure the sustainability of the organisation within the community.

3. Definitions, Analytical Framework and Research Methods

Existing literature on IC shows a plethora of terminologies are used to inform the discussion of IC. Some of the most frequently used terminologies include: knowledge resources; knowledge assets; knowledge-based assets; intellectual resources; intangibles; and intellectual capital. Often these terminologies are used interchangeably and ambiguously. This ambiguity poses a challenge to practitioners and researchers aiming to establish IC as a plausible field of management concern. To reduce the level of ambiguity surrounding IC, the research team introduced a tripartite model of IC, adapted from Petty and Guthrie’s (2000, p. 166) original model, to frame the investigation of the case study organisation’s ICMMR practices. The tripartite model classifies IC as follows:

- **Internal capital** pertains to knowledge resources such as corporate culture, management philosophy, organisational structure, service and product quality, management processes, information systems, intellectual property, and research and development.

- **External capital** pertains to knowledge resources such as corporate name and brands, alliances and partnerships, licensing and franchising, distribution channels, favourable contracts, community relations, customer relations, supplier relations, and financial relations.
Human capital pertains to knowledge resources such as innovation, EEO and diversity, education, training, learning and development, employee demographics, industrial relations, employees thanked, compensation and remuneration, career planning and development, senior executive performance and results, involvement in the community, knowledge identification, sharing and retention, and work-related qualifications etc.

In regards to KM, Petty and Guthrie’s (2000, p. 159) definition “that knowledge management is about the management of the intellectual capital controlled by a company” and that “knowledge management, as a function, describes the act of managing the object, intellectual capital” was used by the research team. The terminology ‘knowledge resources’ was used interchangeably with the terminology ‘intellectual capital’. This definition corresponds with Fincham and Roslender’s (2003, p. 3) argument that “the imperative to manage knowledge coincides with that of managing intellectual capital”. In regards to KM activities, these were defined as tactics and initiatives adopted by the organisation to identify, enact, develop and dispose of its knowledge resources.

The research team devised a series of research questions to facilitate the investigation of the organisation’s ICMMR practices. These research questions pertained in particular to the investigation of three KM gaps, as follows (see Boedker, Guthrie and Cuganesan, 2005):

i. **Gap 1. Management Challenges vs Knowledge Management Initiatives:** Does the organisation respond to its management challenges through the implementation of KM activities, including the acquisition, disposal, enactment and development of its knowledge resources?

ii. **Gap 2. Knowledge Management Activities vs IC Measures:** Does the organisation measure the composition and performance of its knowledge resources and KM activities?

iii. **Gap 3. Organisational KM Activities vs External Reporting of IC:** Does the organisation report to its external stakeholders its strategic management challenges, KM activities and IC indicators via its annual reports?

The research study and questions were informed by the Intellectual Capital Value Creation (ICVC) framework illustrated in Figure 1 below.

**Take in FIGURE ONE**

Besides Petty and Guthrie’s (2000) tripartite model of IC, discussed above, the ICVC framework was informed by Mouritsen et al’s (2003) IC statement model. In summary, the ICVC framework is structured as follows:

- The y-axis elements are derived from Petty and Guthrie’s (2000) tripartite model of IC, categorising IC into external, internal and human capital.

- The x-axis elements are adapted from the reporting categories of Mouritsen et al’s (2003) IC statement model. They detail the: 1) organisation’s Strategic
Management Challenges; 2) Knowledge Resources enacted, and Knowledge Management Activities implemented, by management to respond to the management challenges; 3) IC indicators assigned to measure the composition and performance of the organisation’s knowledge resources and KM activities.

- The z-axis details the research methods. These pertained to: 1) content analysis applied to the organisation’s annual reports (2000–03); 2) content analysis applied to the organisation’s business management and strategy documents including its Corporate Plan (2003-06), Divisional Business Plans (2004) and Target Business Model (2003) document; and 3) semi-structured interviews with fifteen senior managers and executives. These research methods are discussed in more detail in the following.

Content analysis was deployed as a research method to analyse the level and type of IC reported in the case study organisation’s annual reports and internal business documents (Guthrie et al, 2004). The outcome of the content analysis was a quantitative summary of the levels and types of IC reported to internal and external stakeholders in its business documents. The analysis enabled the researchers to identify patterns in the presentation and reporting of information and gain an insight into which resources and activities are important to the organisation. A rationale for applying this method to analyse business documents is that these are viewed as communication devices, which tell a story of how the organisation and its resources are managed, developed and enacted. The starting point for conducting the content analyses was to classify IC information into categories and sub-categories according to a pre-defined coding scheme. The business documents were thereafter analysed and the level of reporting of IC, within each pre-defined category, was recorded. The recording of an IC item is referred to as one incident.

Semi-structured interviews (Patton, 2002) were applied to develop an insight into how the organisation and its members enact, manage, measure, report and develop their knowledge resources within the organisation’s strategic context. To facilitate this objective, the interviewees were asked to: (1) identify the organisation’s Strategic Management Challenges; (2) comment on the KM Activities undertaken by management to respond to the management challenges; (3) outline the IC indicators, if any, assigned to assess the composition and performance of the knowledge resources and KM activities.

The empirical analysis, facilitated by the ICVC, illustrated that all three knowledge management gaps were found to be present at the case study organisation, indicating weaknesses in its utilisation of knowledge resources and in its ICMMR practices.

This current paper focuses on KM gap three. Sections 4 and 5, as follows, detail the empirics of the study; section 4 outlines the organisation’s three main strategic management challenges and related KM activities and IC indicators, highlighting the organisation’s transition to a knowledge based organisation and the challenges experienced by management during this process; section 5 compares the research findings outlined in section 4 with the information reported in the organisation’s annual reports. Section 6 concludes the paper and summarises the consistencies and inconsistencies identified by the research study between the organisation’s internal IC management issues and practices and its external IC reporting practices.
4. Strategic Management Challenges, KM Activities and IC Indicators

The identification of the organisation’s strategic management challenges, KM activities and IC indicators was done by means of semi-structured interviews with fifteen executives and senior managers. These were supplemented by a review of the organisation’s internal business management and strategy documents including the Divisional Business Plans (2004), Target Business Model (2003) document and Corporate Plan (2003). The outcome of the empirical analysis is reviewed in the following sub-sections. Each sub-section contains an outline of: 1) one of the organisation’s three main strategic management challenge (SMC); 2) the KM activities implemented by the organisation to overcome the SMC; and 3) the IC indicators assigned to measure the composition and performance of the knowledge resources and KM activities.

SMC One: Responding to Changing Customer Demands – The Transition to a Knowledge Intensive Business Model

The first SMC pertains to meeting the changing demands of an increasingly sophisticated customer base requiring instant, reliable, responsive and value added services. This SMC was mentioned by all fifteen interviewees. For example, a representative from the Finance department from one of the smaller divisions explained: “we need to change, adapt and employ a different set of criteria in the way in which we deliver service to our customers … we need to become more responsive”. A representative from policy and planning supported this argument and highlighted the need to become more responsive, emphasising that “customers are demanding instant responses and value added services”.

The executive team has responded to the changes in customer requirements by instigating a review and redesign of the organisation’s business model placing increased emphasis on knowledge intensive business practices such as marketing management, business development, value added service offerings, e-commerce and online distribution. The new business model was, at the time of the interviews, being implemented and KM activities pertaining to business development, marketing management and information technology (IT) were in progress across the three operating divisions. An example of the organisation’s KM activities pertaining to marketing management and business development includes the instigation of advertising and customer relationship development activities at the smallest of the three operating divisions. An example of the organisation’s KM activities pertaining to IT includes the transition of its IT infrastructure and systems towards an online environment, accommodating customers’ requests for instant and convenient access to customer services. A senior executive from information technology explained:

My challenge now is the transformation needed to make services available online. Our systems are not ready for that. We are at a cross road in that we have a lot of legacy systems that support work in the shop front but that do not lend themselves to this new paradigm and online environment that we want to move into. The organisation’s IT initiatives have been a reflection of hyperventilation, not effective planning. To move forward we have to replace old processes systems and old knowledge.
The General Manager (GM) of one of the divisions told the story of the division’s new IT initiative, which he saw “as a mechanism for digitising and automating information management”. The interviewee explained that the system moves manual processes online and reduces the need for customers to physically visit the division’s offices. In doing so, it improves service delivery to customers and offers more convenient and timely access to the services provided by the division. Internally, it frees up staff from manual tasks, thereby increasing operational efficiency. It also opens up opportunities to move staff into business development, thereby reducing staff overhead and costs whilst creating more revenue generating positions.

Representatives from HR, Business Development and Plan Registration & Titling made similar comments about the role of IT, highlighting that “IT makes us work smarter” (HR); “automation through IT reduces overheads and improves the timeliness of information to customers” (Business Development); and “IT is a key business driver which improves efficiency and opens up opportunities for value add” (Plan Registration & Titling).

Eight interviewees pointed out the effects that the new business model has had on the organisation’s human capital base, including the composition of the staff and the nature of their skills and competencies. The senior executives emphasised that knowledge resources such as employees’ interpersonal, project management, marketing management, communication and creativity skills have become increasingly important to the organisation’s value creation processes and abilities. The representative from HR and the representative from Learning and Development explained that the new business model has impacted on the nature of the job tasks of individual staff, with manual data processing increasingly being replaced by information technology, resulting in an increase in knowledge intensive job functions such as customer relationship management and business analysis. This observation was further supported by one of the Area Managers, who explained:

There is a move away from manual processes towards automations along with increase in use of IT. This has implications for staffing, and is causing an increase in higher value add positions.

This transition towards a higher value add, knowledge intensive business model and the greater reliance on employee competencies such as interpersonal, project management, marketing management, communication and creativity skills have affected the management of the organisation’s human capital base and led to changes in its KM activities in the areas of recruitment and education, training, and learning and development. For example, the GM of one operating division explained that the organisation’s recruitment and promotion criteria are “increasingly based on leadership, management, communication, negotiation, people management skills, and not on internal expertise and technical competencies”. Furthermore, the largest of the three divisions has introduced a graduate recruitment programme intended to broaden the existing skills base. The representative from HR and the representative from Learning and Development supported this view point and explained that a number of KM activities have been introduced in regards to training in order to develop the organisation’s skills base, including competency based training, TAFE certification and the International Computer Licensing Course. Senior staff are also encouraged to engage in post-graduate education and currently four senior executives are
undertaking master degrees programmes in public sector administration. At the largest division, consideration has been given to bringing together specialists in teams to give technical people more exposure to management experience and develop their managerial skills.

In regards to the deployment of IC indicators to measure the performance and composition of the organisation’s KM activities and knowledge resources pertaining to customer relations, IT and human capital, the interviews showed that besides customer satisfaction surveys, which were conducted infrequently and inconsistently across the three divisions, the organisation has limited indicators in place. The interviews also showed there was no reporting system or processes in place for capturing and communicating information about the composition or performance of the organisation’s human capital base including staff skills and competencies. The representative from information technology mentioned, however, that some IC indicators exist in the organisation’s IT systems but these are not currently reported internally.

In summary, in response to an increasingly sophisticated customer base, the case study organisation has initiated the design and introduction of a new knowledge intensive business model. This has transformed its business focus and KM activities, placing increased emphasis on marketing management and business development activities, value added service offerings, e-commerce and online distribution. This transition has had implications for the organisation’s human capital base and requires different employee competencies, specifically in regards to interpersonal, project management, marketing management, communication and creativity skills. The organisation has responded to this SMC by implementing a series of KM activities pertaining to its recruitment, education, training, learning and development practices. The extent to which the organisation measures the composition and performance of these knowledge resources and KM activities, however, is limited.

**SMC Two: Public Sector Reforms Resulting in More Stringent Performance Requirements**

This SMC pertains to changes in public policy, including the introduction of Public Trading Enterprise and Government Business Enterprise (GBE) structures resulting in more stringent performance requirements. All fifteen interviewees highlighted this issue as a key management challenge and pointed out the complications associated with managing a public sector organisation from an enterprise perspective. Emphasis was on the growing pressure to improve revenue management and engage in cost cutting exercises and the challenges associated with servicing the growing demands of its increasingly sophisticated customers with scarce resources. Among others, the GM of one of the operating divisions highlighted that the “recent tightening of budget and increased budget control calls for new way of running the business”.

In response to this management challenge, KM activities pertaining to redundancies and business process re-engineering have been introduced across all operating divisions with a view to reducing costs and increasing operating efficiency. The representative from policy and planning explained that the “public sector is being reduced through redundancies and by improving efficiency through business process re-engineering”. The representative from HR highlighted that the move towards an enterprise focus, including the introduction of GBEs and the reduction in funding, has
translated into “hiring freezes and layoffs, including voluntary redundancies”. The interviewee also pointed out the organisational challenges associated with the implementation of GBEs and raised the questions “what are the implications of the enterprise focus on internal operations and structures” and “how to manage the department from an enterprise perspective?”. In particular, the interviewee emphasised the role of culture in facilitating the transition towards the GBE and commented that:

The process of culture change is important along with the introduction of GBE business model. The financial arrangements introduced by the GBE model, where revenue pays wages and where the business is no longer funded by Treasury is a very significant issues and requires a very different mindset.

The representative from HR went on to highlight the challenges associated with instigating an entrepreneurial mindset in a public sector organisation and explained that an innovative and dynamic work environment goes against traditional public sector beliefs and work processes characterised by life long employment, slower decision making processes, a strong reliance on operating policies and procedures, seniority based career advancement, high levels of job security and resistance towards change. The interviewee emphasised:

Many people have been with Lands for many, many years, including some staff for 42 years. Loyalty and stability is the foundation of the organisational mindset. These traditional values conflict with the introduction of GBE structures, which requires a higher degree of risk taking, innovation and entrepreneurship.

At the time of the case study, no explicit KM activities had been implemented to respond to and overcome the challenges associated with culture change.

In regards to increasing revenue, KM activities have been taken to engage in business development and marketing management, as discussed in the section on SMC 1 above. This was particularly evident in the smallest of the three divisions, which is placing increased effort on attracting new contracts and building up the consultancy side of the division.

The more stringent performance requirements have also had implications for managerial decision-making processes, including the type of information required by the executive team to assess the performance of the organisation and base their resource allocation decisions on. The interviews showed that the senior executives are interested in developing a better understanding of the performance of the organisation’s knowledge resources and KM activities in order to improve decision making processes and enhance the effectiveness of capital. The highest ranking executive officer, the Director General, provided his perspective on the role of IC information in managerial decision making, emphasising that organisations need to broaden the scope of their information base, managerial philosophy and planning horizon. He commented:

The greatest value of organisations in today’s business environment is in intangible assets. However, in most organisations, senior executives pay little attention to the greatest asset
in their organisations that is the knowledge or intellectual capital. Decision making is skewed towards short term materialistic gains, which undervalues the real value and influences whether an organisation is sustainable or not. At the moment, organisations are undervaluing their true wealth. They don’t know if they’re adding value or taking value away, and most businesses are taking value away. We need to develop a greater sense and appreciation and awareness of the true value of what the intangibles are, and in doing that being able to better allocate financial and other related resources. We need to be able to, in a structured sense, have an objective discussion about where we should be cutting or increasing our resource allocation. Our objective, at present, is to get a better understanding of what constitutes the organisation, the value of the organisation, and how we can use that knowledge generally, augmented with other tools, to bring about better decision making.

In regards to indicators, the analysis showed that financial indicators were used extensively across all operating business. IC indicators, on the other hand, were used to varying degrees by the three divisions. For example, there was no mention of the deployment of IC indicators to assess the effects or performance of the organisation’s business process re-engineering activities. In regards to IC measures pertaining to staff redundancies, the Director General mentioned it once in this way: “I was asked to take 150 staff cuts and I took 50. Had I taken 150 it would have eaten away the intellectual capital, and I just would have been on a merry-go-round”. Another example of the deployment of IC indicators, which stood out during the interviews, was made by the GM of one of three divisions who mentioned that in his division the Area Managers are responsible for assessing the likelihood of getting a new job by assigning a percentage allocation which indicates the likelihood of winning each contract. A representative from Finance from the same division further highlighted that the division has in place a performance management system, which includes key performance indicators such as chargeable hours, number of new clients and number of hours spent on a task.

In summary, in response to more stringent financial performance requirements by NSW Treasury, the case study organisation has implemented several KM activities pertaining to cost cutting exercises and revenue development. One of the challenges, not responded to by the executive team, relates to changing the organisational culture, instigating an entrepreneurial mindset and creating a dynamic work environment to ensure the successful implementation of GBE structures. Another issue, yet to be resolved by the executive team, is how to better understand the value and contribution of the organisation’s knowledge based resources and KM activities. This was deemed necessary by the executive team who were interested in broadening the scope of information used to inform managerial decision making, improving resource allocation and extending the scope of performance reporting. In regards to IC indicators, the interviews showed that some IC indicators were in use within the operating divisions. These pertained in particular to the organisation’s customer relationship management and development activities.

SMC Three: The Ageing of the Workforce
The last management challenge pertains to changes in the composition of the organisation’s human capital base as a high proportion of the organisation’s staff is scheduled for retirement in the short to medium term. This management challenge was mentioned by all fifteen interviewees as an important issue which plays a critical
role in ensuring the sustainability of the organisation in the years to come. For example, the GM of one operating division explained that up to 60 per cent of the workforce in his division is scheduled for retirement and estimated that he has between three and five years to capture and transfer the knowledge currently held by the retiring staff. A representative from Finance highlighted the financial imperative of an ageing work force by stating that “knowledge loss is expensive”. The interviewee commented:

Knowledge management is extremely important because of what it represents to the organisation as a whole, especially considering the upcoming retirements of senior staff with valuable and possibly irreplaceable knowledge. If we relinquish expert knowledge, we are letting go of a host of things that we need to retain for the health of the business. If we let that knowledge leave us, we can never recover it. If a key person with the background, experience and knowledge leaves without having passed on the knowledge, you might need two people in order to undertake that same task, so there is a cost and financial implications involved.

An Executive Manager explained that in his work group, approximately 20 out of 35 managers are scheduled for retirement in the short to medium term. The interviewee highlighted that a key issue pertains to capturing and transferring the tacit knowledge held by senior staff to younger staff, as the value of these key staff members lies in their “relationships and reputations, which are very important to the business and to maintaining confidence with clients and sub-contractors”. Another interviewee, a representative from policy and planning, explained:

Our main challenge is to capture the knowledge of retiring staff, and transfer the expertise, experiences, networks and relationships that they have built up over a period of life long employment with the organisation. How do we facilitate knowledge sharing and reduce the risk of turnover? [emphasis added].

Whilst all interviewees agreed that KM activities pertaining to knowledge identification, sharing and retention are a strategic priority to the organisation, they also highlighted the difficulties associated with getting staff to engage in knowledge sharing activities. One frequently mentioned aspect was the role of the organisation’s culture in facilitating knowledge sharing. One interviewee commented “the existing environment is not conducive to knowledge sharing. It is characterised by a high number of loyal employees, who often only can be promoted when their superior leaves. Progression has traditionally been based on length of time, not necessarily ability”. This has been compounded by the “tendency towards internal recruitment, which makes people resistant towards sharing knowledge as knowledge is seen as power”. Another interviewee supported this view, highlighting that “knowledge sharing is a threat to job security. Senior staff wants to make sure new comers start at the bottom - they should go through what I went through”.

One interviewee mentioned that the first step in facilitating culture change and initiating and implementing KM activities to retain knowledge is to “get people to understand what we are doing and why we are doing it. Achieving buy in and overcoming employee resistance is a key challenge … it is a culture thing, where there has to be a willingness within the organisation to share things”.

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In regards to implementing knowledge identification, sharing and retention activities to overcome this strategic management challenge, the interviews showed that such KM activities are done in pockets at a divisional level with no overarching strategy or action plan in place.

One activity is the establishment of a Knowledge Management and Development Committee, which has been set up as a central coordination unit overseeing the organisation’s KM activities. The committee has held three meetings since its inauguration, hosting guest speakers and facilitating relevant discussions. Another activity is the organisation’s intranet website featuring FAQs and general information on operating policies and procedures.

Furthermore, one project is being undertaken in a work group within the largest of the three divisions. The objective is to identify how knowledge relates to decision making, how knowledge can be captured, which structures can be created for staff to more easily record and retrieve information and knowledge (in particular in regards to precedent cases) and how the knowledge can be reliably measured or valued.

Another activity conducted within one of the work groups is a skills assessment programme, which aims to identify and evaluate the skills and knowledge of the work group’s key staff members. The activity has entailed reviewing and documenting the competencies of 20 employee with a view to identifying what knowledge exist, how such knowledge relates to the business and what needs to be captured. The Executive Manager of this work group mentioned that he has teamed up the division’s ‘champions’ to build up support and trust among the peers and explained:

What we are doing is we get the ‘champions’, who have credibility amongst the peers, to advocate and push forward the [knowledge sharing and retention] projects. But it is a slow process. We have to tread carefully as staff feel uncertain about the intent of the project and what it will do to their positions.

Other activities in the planning phase pertain to: the creation of a mentor network where knowledge experts are identified and made available to provide advice on business topics to other members of the organisation; and the implementation of a software programme, which automatically maps the business processes executed by staff while working in accounting and procurement systems.

The smallest of the three divisions has not initiated or implemented any KM activities pertaining to knowledge identification, sharing and retention. The interview with the division’s executives showed that they are awaiting information and instructions from the head office as to how to do so.

In regards to IC indicators, the interviews showed no deployment of indicators to assess the performance of the KM activities pertaining to knowledge identification, sharing and retention activities or the composition of the organisation’s knowledge resources.

In summary, this section of the study has shown that the case study organisation faces a key management challenge in regards to the ageing of its work force. The extent to
which KM activities relating to the identification, sharing and retention of explicit and tacit knowledge have been implemented vary across the three divisions and within the work groups. Several activities are being undertaken in the largest divisions and no activities in the smallest of the divisions. Existing activities are done in pockets at a divisional level with no overarching strategy or action plan in place. Furthermore, IC indicators measuring the performance of the department’s knowledge identification, sharing and retention activities are not deployed in any of the work groups or divisions.

5. Intellectual Capital Reporting

This section of the paper contrasts and compares the three strategic management challenges and related KM activities and IC measures discussed in section 4 above with the IC information reported by the organisation via its annual reports. The objective is to summarise the inconsistency and consistency identified between the organisation’s internal IC management issues and practices and its external IC reporting practices.

**Reporting of SMC One: Responding to Changing Customer Demands – The Transition to a Knowledge Intensive Business Model**

The first SCM, discussed in section four above, pertained to the organisation’s transition towards a new, knowledge intensive business model driven by customers’ demand for instant, reliable, responsive and value added services. The instigation of a customer focused business model was, to some extent, reflected in the organisation’s annual reports (2000-2003). For example, the opening statement made by the Director General in the 2002/03 annual report communicated the following:

> The Department’s programs over the years were shaped by our values of customer service, accountability, innovation, respect, integrity, teamwork and leadership. These values signal that NSW is moving into a new era of land information and management, strengthening the partnership with business and the community” (Annual Report, 2002/03, p. 4).

Furthermore, the content analysis of the 2002/03 annual report showed a strong emphasis on customers and the community with Customer Relations receiving the third highest number of incidences and Community Relations the highest number of incidences within the external capital category. However, in comparison with the 2001/02 and 2000/01 annual reports, the 2002/03 annual report showed a decline in the number of incidences for both reporting categories.

The transition towards online distribution and e-commerce, driven by customers’ demands for instant, reliable services, was reflected in the internal capital category in the 2002/03 report where Information Systems and Technology showed the highest number of incidences across all categories. This was consistent with the comparative analysis, which showed an increase in reporting of this IC sub-category over the 2000/01 and 2001/02 periods.

In the human capital category, both Training and Education showed high levels of incidences in the 2002/03 annual report, reflecting the changing requirements and the
development of new employee skills and competencies. For example, the 2002/03 annual report (p. 117) stated “...the People Strategy Project continued to be implemented enabling staff participation in planning for the future and in the clarification of the skills and other competencies required for the future as client expectations, needs and technologies change”. On the other hand, the 2002/03 annual report showed limited reporting of categories such as Innovation, Learning and Development, and Employee Skills and Competencies, indicating a lack of disclosure of information about these strategically important KM activities.

In regards to IC indicators, the content analysis showed very limited reporting of information about the composition or performance of the organisation’s knowledge resources and KM activities pertaining to customer relations, community relations, IT, and employee skills and competencies. For example, the annual reports showed no mention of IC indicators pertaining to customer satisfaction, retention or acquisitions, employee satisfaction or retention, number of services offered online, or number of completed IT projects. The 2002/03 annual report (p. 25), however, provided information on the intention to “commission a customer survey to gather information from LPI’s Queens Square Sydney customer base and to develop benchmarks for customer service levels”.

In summary, the analysis showed both consistency and inconsistency between the organisation’s internal IC management issues and practices and external IC reporting. Whilst the annual reports provided no direct mention of the transition towards a knowledge intensive business model, they contained information about the KM activities implemented by the executive team to facilitate the transition to the new business model. The main inconsistencies between internal IC management practices and external IC reporting pertained: firstly, to the decline in reporting of the customer and community categories in the 2002/03 annual report, which was inconsistent with the organisation’s expanding customer management activities; and secondly, to the limited mention in the annual reports of three strategically significant human capital sub-categories, including Innovation, Learning and Development, and Employee Skills and Competencies, which were deemed important by the senior executives. Consistent with internal management practices, the reporting of IC indicators was limited across all categories and sub-categories. The only exception was the lack of reporting of customer satisfaction rates in the annual reports.

**Reporting of SMC Two: Public Sector Reforms Resulting in More Stringent Performance Requirements**

The second SMC relate to changes in public policy and the introduction of public sector reforms, resulting in more stringent financial performance requirements. The interviews with the executive team, discussed in section 4 above, demonstrated that the organisation has engaged in a series of KM activities aimed at fulfilling Treasury’s more stringent performance requirements, in particular in regards to reducing costs. In contrast, the annual reports provided limited mention of the organisation’s KM activities pertaining to cost cutting activities such as staff redundancies and business process re-engineering. For example, there was no mention of the redundancies undertaken across the three operating divisions in the 2002/03 annual report, despite the layoff of 50 staff. The 2002/03 report showed one mention (p. 5 and p. 53) of the organisation’s business process re-engineering activities:
Landirect will offer substantial cost savings to the Department with the re-engineering and streamlining of business processes and supporting services and the move towards customer self service via the use of online technologies.

In regards to the instigation of enterprise structures, the 2002/03 annual report mentioned that the largest of the divisions is operating as a Government Business Enterprise, which is “functioning in a manner which is consistent with government policy” (annual report, 2002/03, p. 7). It also mentioned that the second largest operating division is being transformed into a Public Trading Enterprise (annual report, 2002/03, p. 6).

The annual reports, however, did not mention the challenge associated with instigating an entrepreneurial mindset and creating a dynamic, performance driven work environment, as mentioned by the senior executives during the interviews. The reports neither mentioned the challenges that the senior executives were experiencing in identifying the value and contribution of the organisation’s knowledge resources to business performance nor their intent to provide external stakeholders with a broader perspective on the performance of the organisation’s knowledge resources and KM activities.

In regards to IC indicators, the annual reports did not report indicators pertaining to business process re-engineering, redundancies, GBE structures, work environment or culture.

In summary, the analysis demonstrated very limited or no reporting of the SCM pertaining to Treasury’s more stringent financial performance requirements and the KM activities initiated by the executive teams in response to this SCM. There was limited or no mention of the knowledge resources and KM activities pertaining to business processes re-engineering and staff redundancies. Neither were the management challenges invoked by the transition towards GBE structures mentioned, including the issues pertaining to facilitating cultural change, creating a dynamic, innovative, performance driven work environment and measuring the performance of the organisation’s knowledge resources. The empirical analysis demonstrates, in this regard, inconsistency between the organisation’s internal IC management issues and practices and its external IC reporting practices.

**Reporting of SMC Three: The Ageing of the Work Force**

The third management challenge pertained to the changes in the composition of the case study organisation’s human capital base with up to 60 per cent of senior staff scheduled for retirement in some work groups. This management challenge was considered to be of strategic significance to the sustainability of the organisation by all interviewees. However, the annual reports did not reflect this SCM and did not mention the composition and age profiles of the organisation’s human capital base or the risk associated with the ageing of the workforce. Nor did they reflect the knowledge identification and sharing and retention activities instigated by the senior executives to overcome this management challenge. The lack of disclosure of this SMC was further reflected in the risk management section in the 2002/03 annual report, which did not mention the ageing of the workforce. Nor did the annual reports...
provide any information about the challenges associated with capturing the tacit knowledge held by the senior staff and the expertise embedded in their work flows, networks and relationships, although this was identified as a key issue by the executives during the interviews.

The low level of reporting of this SMC was also reflected in the content analysis, which showed low levels of incidences in the Knowledge Identification, Sharing and Retention category across all reporting periods. “However, this SMC was increasingly reported over time, with five incidences in the 2002/03 annual reports, compared to one incidence in the 2001/02 annual report and no incidence reported in the 2001/00 annual report.

The only KM activity relating to knowledge identification, sharing and retention mentioned in the 2002/03 annual report was the staff skills assessment outlined in section 4. The objective of the assessment was however, not related to the ageing of the workforce and the need to instigate knowledge identification, sharing and retention activities. Instead the objective of conducting the assessment was stated to be “to optimise investment in training” and “to improve service delivery” (Annual Report, 2002/03, p. 28).

In regards to IC indicators, there was no mention in either of the annual reports of the deployment of indicators to measure the composition or performance of the knowledge resources and KM activities pertaining to organisational knowledge identification, sharing and retention.

In summary, the analysis showed inconsistency between the organisation’s internal IC management issues and practices and external IC reporting in regards to SMC three which pertained to the ageing of the work force. Neither the SMC, nor the knowledge resources enacted and KM activities implemented by the executives to overcome the management challenge, were reported to external stakeholders in the organisation’s annual reports. Consistent with the lack of deployment of IC indicators internally, the annual reports did not disclose information about IC indicators detailing the composition of the organisation’s human capital base or the performance of the organisation’s KM activities pertaining to knowledge identification, sharing and retention.

### 6. Conclusion

The paper set out to compare and contrast the case study organisation’s internal IC management issues and practices with its external IC reporting practices. In doing so, empirical data detailing the organisation’s internal SMCs, KM activities and IC indicators have been contrasted to empirical data on the information reported by the organisation its annual reports. This was done in accordance with knowledge management gap three identified in the ICVC framework.

Table 1 summarises the outcome of the empirical analysis.

**Take in TABLE ONE**
In regards to the reporting of the organisation’s strategic management challenges, column one in table 1 shows that the organisation made no explicit mention of the three SMCs in the annual reports. There was no direct mention of its transition towards a new, knowledge intensive business model, the more stringent financial performance requirements and the ageing of the workforce. The lack of explicit reporting of all three SMCs stands in contrast to the emphasis placed on these SMCs by the executive team during the semi-structured interviews. The lack of disclosure of information about SCM 3, the ageing of the workforce, is particularly noteworthy given the risks this SMC poses to the sustainability of the organisation, with up to 60 per cent of the workforce scheduled for retirement in some work groups within the next three to five years. The comparative analysis shows in this regard inconsistency between the SMCs faced by the case study organisation internally and the information reported to its external stakeholders via its annual reports. This research finding illustrates that strategically important management challenges are not accounted for in contemporary annual reports.

In regards to the reporting of the KM activities implemented by senior management to overcome the SMCs, column two in table 1 shows the organisation disclosed information on one out three KM activity areas. The information disclosed pertained to SMC 1 and included information on knowledge resources enacted and KM activities implemented by senior management to improve customer and community relations, IT systems and human capital. In contrast, there was limited reporting of the knowledge resources enacted and KM activities implemented by management to respond to: 1) SMC 2, in particularly those activities implemented to reduce costs; and 2) SMC 3, which pertained to the knowledge identification, sharing and retention activities implemented to reduce the risks associated with the ageing of the workforce. This stands in contrast to the emphasis placed on these knowledge resources and KM activities by the executive team during the semi-structured interviews. The comparative analysis demonstrates in this regard some inconsistency between the knowledge resources enacted, and KM activities implemented, by senior executives internally and the information reported to external stakeholders via its annual reports. This research finding supports the view that strategically important knowledge resources and KM activities are not accounted for in contemporary annual reports.

In regards to the reporting of the IC indicators, column three in table 1 shows that the annual reports provided no, or very limited, reporting of IC indicators detailing the composition and/or performance of the organisation’s knowledge resources and knowledge management across all three SMCs. This is consistent with the lack of deployment of IC indicators internally. The only exceptions to this were the limited use of IC indicators pertaining to customer satisfaction by the three operating divisions and the use of IC indicators such as chargeable hours, number of new clients etc by the smallest of the three operating divisions. This research finding supports the view that the composition and performance of strategically important organisational resources and activities are not accounted for in contemporary annual reports. Furthermore, it illustrates the lack of use of IC indicators to inform managerial decision making and resource allocation, as acknowledged by the executive team, particularly the Director General, who emphasised this as a weakness of the organisation’s internal performance management processes and practices.
In summary, the empirical analysis has shown both consistencies and inconsistencies between the case study organisation’s internal IC management issues and practices and its external IC reporting practices. Notably, the analysis has illustrated a lack of reporting of internal IC management issues and practices with three out of three SMCs and two out of three KM activity areas not reported to external stakeholders in the organisation’s annual reports. This indicates that external stakeholders are not fully informed about the management challenges, knowledge resources and KM activities, which are of strategic significance to the organisation. In particularly, the study illustrates the strategic importance of human capital and the provision of information about organisational human capital to external stakeholders. It raises the question as to how external stakeholders such as capital markets and governments can adequately judge, value, assess and make forecasts about organisational performance without having access to critical information about the issues, resources and activities that influence, and drive organisations’ value creation activities, abilities and processes.

The empirical data presented in this paper has in this regard provided evidence to support the argument that the value relevance of annual reports is declining. Furthermore, it has illustrated the importance of extending existing reporting practices and requirements to incorporate information on the composition and performance of organisations’ management challenges, knowledge resources and KM activities, and in particularly information about human capital. Reflecting this, early trend-setters within European governments set an affirmative example of initiatives pertaining to IC reporting, with Denmark leading the way in regard to the formulation of self-reporting IC guidelines (see, Mouritsen et al, 2003) and the UK and Austria leading the way in regard to public policy legislation requiring organisation’s to disclose information on their IC (see CIPD, 2004; Schaffhauser-Linzatti, 2004).
Bibliography


1 It should be noted that a total of twelve strategic management challenges were identified in the research study. This paper reports on three main challenges. See Guthrie, Boedker and Cuganesan (2004) for details on all twelve management challenges.

2 Petty and Guthrie’s (2000, p. 166) tripartite model of IC was adapted from Sveiby’s (1997) original classification of IC.

3 It should be noted that the content analysis for 2001/02 and 2002/03 was done separately for the three previously independent entities reflecting the separate structure of these entities prior to April, 2003.

4 In brief, the outcomes of the three gap analyses were as follows. Gap analysis one showed that the organisation responded poorly to six out of twelve of its strategic management challenges, indicating that it does not manage all areas of its IC in a sustainable and strategic manner. Gap analysis two showed that the organisation does little to measure its knowledge resources and KM activities and indicated that IC indicators are not used to inform decision making and resource allocation (for more details see Guthrie, Boedker and Cuganesan, 2004, and Boedker, Guthrie and Cuganesan, 2005).

5 Comparative analyses for annual reports prior to the 2002/03 reporting year were not feasible for the human capital category due to the restructure of the organisation. Annual reports prior to the merger contained human capital information on other operating divisions, which could not be separated, and was therefore deemed invalid for inclusion in the content analysis of the human capital information.