

**AUSTRALIAN RED CROSS BLOOD SERVICE ANNUAL AND
INTELLECTUAL CAPITAL REPORTS**

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Australian Red Cross Blood Service Annual and Intellectual Capital Reports

Abstract

The Australian Red Cross Blood Service (ARCBS) annual and intellectual capital reports are studied and compared with an earlier study of Intellectual Capital at ARCBS. The case study organisation is an Australian not-for-profit organisation and the case study took place over three years. The paper reports the findings of the 2001 study at ARCBS and analyses the reporting practices of intellectual capital in the current study. The findings indicate greater focus on internal and external capital with less focus on human capital. The frequency with which certain internal, external and human capital attributes occur in ARCBS reports can be explained by macro, meso and micro factors, which affect the organisation and influence the information it provides to its stakeholders. Annual reports are designed to address the concerns of multiple stakeholder groups, whereas its intellectual capital reports are more targeted towards specific audiences.

Keywords: Intellectual Capital; Accrual budgets and reports; Reporting Frameworks; Not for profit sector.

Australian Red Cross Blood Service Annual and Intellectual Capital Reports

1. Introduction

Over the past two decades, the reporting frameworks used within the public and not for profit (NFP) sectors of a wide variety of jurisdictions have undergone significant change. Much of this change has arguably been about introducing a business reporting framework that is still being cast in highly traditional form.

As is demonstrated below, significant reforms to reporting frameworks have taken place within public sectors worldwide. Analysis of the desirability of reformed performance reporting systems and frameworks within the public sector intensified during the 1990s (Guthrie, 1993). Emphasis has been placed on the provision of enhanced accrual financial information and strong concerns have been raised about the adequacy of these financial information sets. In particular, there has been growing concern over the quality of services provided by public sector organisations, as well as the economic, social and environmental impact of service provision and operation (Guthrie, 1993; Guthrie *et al.*, 2004; Broadbent and Guthrie, 2008; Guthrie and Farneti, 2008).

However, little attention has been given to the NFP sector and reformed reporting frameworks. It is desirable that, within the context of NFP sector reporting frameworks, information on both economic and non-economic performance should be reported. This would enable NFP entities to provide a more complete account of their performance in the areas of value creation and sustainability. There has been development of extensive literature on non-financial performance reporting within the public sector (see, for example; Carlin and Guthrie, 2001), however, insufficient

attention has been paid to the NFP sector and more specifically the possibilities associated with the adaptation of intellectual capital (IC) reporting frameworks for use within the NFP Sector.

It has been widely observed that many strategic intangible resources that are increasingly important in the rise of the knowledge-based economy are not accounted for in traditional financial statements (see, Boedker, et al., 2008; SKE, 2006; Unerman *et al.*, 2007). Furthermore, the movement towards sustainable development has underlined and given rise to the re-emergence of long-standing criticism: that the traditional financial reporting framework provides an incomplete account of an organisation's activities.

IC reporting has been identified in this paper as a possible means of redressing certain of these weaknesses in the NFP setting. However, in the IC literature, it is recognised that the IC reporting frameworks cannot of themselves provide fully exhaustive solution sets (Edvinsson and Malone, 1997). Typically, IC reporting frameworks have been analysed through the lens of private sector organisations seeking to add additional economic or market value and further their competitive position in comparison to their peers (Ricceri, 2008). However, as is argued below, many of the measurement techniques recommended for use have a strong market oriented flavour not germane to NFP applications; this does not render the concept of IC or the importance of IC reporting frameworks less valuable for NFP settings. On the contrary, precisely because of the lack of focus on this important area within the NFP sector, it is possible that the gains to be made as a result of a focus on managers and

reporting IC in terms of understanding organisational performance, transparency and accountability are even more significant in NFP settings.

The aim of this paper is twofold. First, to explore the application of IC to the NFP sector. Second, to examine in depth IC reporting within a 'best practice' NFP to identify changes over time and also the use of various reporting media.

In this paper The Australian Red Cross Blood Service (ARCBS) annual and intellectual capital reports (ICR) are compared. The case study organisation is an Australian not-for-profit organisation and the case study took place over three years. The general findings are as follows. First, the study finds that ARCBS ICR give equal emphasis to all three IC dimensions (internal, external and human capital), whereas its annual reports (AR) have a greater focus on internal and external capital with less focus on human capital. Second, the frequency with which certain internal, external and human capital attributes occur in ARCBS reports can be explained by macro, meso and micro factors, which affect the organisation and influence the information it provides to its stakeholders. Third, ARCBS AR are designed to address the concerns of multiple stakeholder groups, whereas its ICR are targeted more towards specific audiences.

The paper is divided into five sections. Section two provides an introduction to the history of ICR in the Australian Red Cross Blood Service (ARCBS), the context within which this reporting activity occurs and the rationale for it. Section three details the content analysis method employed in this study and draws comparisons between ARCBS annual and 'innovation' reports on the basis of content analysis

findings. Section four explores the significance of these findings, and section five makes recommendations for the improvement of ICR practice within the ARCBS.

2. Literature Review

There is not one generally accepted definition of IC, but Stewart's (1997) definition is often used:

‘...the sum of everything everybody in a company knows that gives it a competitive edge... Intellectual Capital is intellectual material, knowledge, experience, intellectual property, information...that can be put to use to create wealth.’

The focus of the definition is not just the sum of defined components, but rather the way that the components interact and work to create value for stakeholders. The European Union sponsored program called the Meritum Project (2002), identified that IC is comprised of a ‘... combination of human, organisational and relational resources’, and an illustration of their definition and examples are provided in Table 1.

Table 1: The Components of IC

	Definition	Examples
Human Capital	The knowledge that employees take with them when they leave the firm. It includes the knowledge, skills, experiences and abilities of people.	Innovation capacity Creativity Know-how and previous experience Teamwork capacity Loyalty Internal communication
Structural Capital	The knowledge that stays within the firm at the end of the working day. It comprises organisational routines, procedures, systems, cultures and databases.	Organisational flexibility Innovation capacity Organisational culture Documentation services Knowledge centres Use of information technologies

Relational Capital	All resources linked to the external relationships of the firm. It comprises the part of human and structural capital involved with the company's relations with stakeholders (investors, creditors, customers, suppliers, etc.) plus the perceptions that they hold about the company.	Image Alliances Customer loyalty Customer satisfaction Supplier links Commercial power Dealing with financial institutions.
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Source: (Meritum Project, 2002: Box1)

IC management, measurement and reporting serve particular purposes. But it is the overall picture that comprises a tapestry or story about organisational use of knowledge resources and its effectiveness in managing those resources. A tapestry is an apt metaphor; it is spun cloth that is woven to reveal an image or pattern. Up close, it may appear irrelevant, but in perspective a full picture is revealed. Mechanisms of management, measurement and the processes of reporting of these provide an insight into an organisation achieving goals.

IC *management* refers to the function of sustaining value through the management of resources. Mouritsen (2004, pp. 261, 265) says 'intellectual capital management is a process of value creation', where linkages between disparate elements of action are made. It is this interdependence which is key and reinforces a *resource-based* view about organisational value creation, which advocates that 'organisational resources or assets are bundled together and are interdependent' (Marr *et al.*, 2004, pp. 312). It means attending to people, systems and processes.

IC measurement pertains to the establishment of metrics and measurement of an organisation's knowledge resources over time. Measures are indicators of knowledge

management initiatives. Measurement enables checks and balances to be made about management strategy (Mouritsen *et al.*, 2001a; Chen *et al.*, 2004, p.196). Measurements inform on decisions about resource allocation and provide discipline in focusing on strategic intent. Measurement focuses on what reporting mechanisms can best be constructed that enable non-financial, qualitative items of intellectual capital to be measured alongside traditional, quantifiable, financial data (Petty and Guthrie, 2000; p.157).

ICR are mechanisms to make visible to external stakeholders the actions taken by an organisation in the management of resources. Traditional methods of expressing value are inadequate given the rapid pace of change in a knowledge-based environment (Petty and Guthrie 2000, p.159). Mouritsen (2004, p. 259) argues that an IC statement is one mechanism that makes intellectual capital *real* for the firm because it summarises efforts to develop and use knowledge resources, by reporting on the mechanisms put in place to make knowledge manageable and by informing how the resources of the organisation are composed and bundled together in order to create value.

The disclosure of IC information to both internal and external stakeholders is generally seen as an important tool in the development of an organisation's decision-making processes and as an enabler to judge the effectiveness of their IC management practices (Van der Meer-Kooistra and Zijlstra, 2001).

In more detail, researchers in the field of ICR have been interested in the substance of the disclosure that emanates from company AR (Guthrie *et al.*, 2004). This is because

the AR has become a focal point in external IC disclosure as evidenced by the proliferation of frameworks that use the annual report as an appropriate vehicle for the public disclosure of IC (Edvinsson, 1997; MERITUM Project, 2002; Mouritsen *et al.*, 2003). The use of content analysis has been a popular method of determining the extent of IC reporting found in company reports (Guthrie *et al.*, 2004).

An early example of the use of content analysis in the IC literature is found in Guthrie and Petty (2000) who conducted an empirical examination of Australian annual reporting practices to examine the extent of IC reporting practices. This study was based upon a content analysis of the annual reports of the top 20 listed Australian companies by way of market capitalisation. The reports were examined for different attributes of IC and Table 2 gives details of these attributes.

Table 2: IC Reporting Attributes for Australia

Internal Capital	External Capital	Human Capital
Patents	Brands	Know how
Copyrights	Customers	Education
Trademarks	Customer loyalty	Vocational qualification
Infrastructure assets	Company names	Work-related knowledge
Management philosophy	Distribution channels	Work-related competencies
Corporate culture	Business collaborations	Entrepreneurial spirit
Management processes	Licensing agreements	
Information systems	Favourable contracts	
Financial relations	Franchising agreements	

Source: Guthrie and Petty (2000, p.246)

While the study is limited because it concentrates only on the external reporting of IC, it still serves as a good insight into the proliferation of the measurement, management and reporting of IC amongst major Australian businesses.

Examples of countries that have been studied in addition to Australia are Canada (Bontis, 2003), Hong Kong (Guthrie et al., 2006), Ireland (Brennan, 2001), Italy (Bozzolan *et al.*, 2003), South Africa (April *et al.*, 2003), Sri Lanka (Abeysekera and Guthrie, 2005), Sweden (Olsson, 2001) and The Netherlands, Germany and France (Vergauwen and van Alem, 2005). Each of these studies were conducted in different cultural settings and thus the cultural context behind the measurement and reporting of IC was often ignored, with the notable exception of Vergauwen and van Alem (2005).

In contrast with the private sector orientation of the previous studies, there have been a few public sector IC reporting studies. For instance, Collier (2001) examined IC utilisation and external reporting in the public sector in an examination of the UK Police Service. Collier (2001) links the IC reporting to discussions of its utilisation across a variety of media. These include formal police reports where IC was represented only implicitly through descriptions of human resource and technology initiatives, such as cost repairs including IC information such as training expenditure, and performance reporting where the benefits of IC were difficult to assess.

However, an area that has not attracted ICR studies is the NFP sector. This is surprising considering the importance of IC in service provision and illustrations of NFP organisations intangibles value drivers (e.g. ARCBS, see, Fletcher *et al.*, 2003).

3. Research Method

3.1 Case Study Organisation

The case study organisation is the Australian Red Cross Blood Service (ARCBS), a non-profit division of the Australian Red Cross, with a key responsibility for research, planning and the provision of blood products to the Australian population. The organisation has a broad range of stakeholders, including federal and state health authorities, clinicians, and patient and donor groups. The need to address the concerns and interests of the ARCBS's multiple stakeholder groups, as will be indicated below, is a significant driver in the production of AR and ICR.

The ARCBS is one of the few not-for-profit organisations producing ICR in Australia. Its first ICR was produced in 2000 and they have reported annually since then. This paper will compare the AR and ICR produced between 2002 and 2005.

In our earlier paper (Fletcher, *et al.*, 2003), our stakeholder analysis aimed to identify the essential elements likely to build value and contribute to performance. We undertook a major stakeholder analysis (with a sample of about 90 individuals and organisations) on perceptions of how value is realised in intellectual capital, as well as the applicability of third sector IC more generally. In this paper, we outline the shift in appreciation and use of intellectual capital in the ARCBS over time.

As a pre-eminent third sector organisation, the ARCBS is responsible for the provision of blood products throughout Australia. Change within the blood industry has been considerable. It has been influenced by developments both at the international (macro) and domestic (micro) levels. Macro level influences include micro-economic new public management (NPM) reforms to policy and regulatory effectiveness concerns. Micro level influences include risk management, pricing mechanisms, research flow-on, and so forth. Our earlier study was important in identifying stakeholders and perceptions imperative to ARCBS strategy. It clearly indicated a primary concern for sufficient and safe supply of blood, a secondary concern for the public stakeholder/public confidence, and a third concern for internal operations. In essence, this illustrates that the human, intellectual and social capital were deemed as less important by stakeholders (for example, see, Figure 1). The current study began with the measurement and reporting of intellectual capital with external reports. It was significant as well because studies in the NFP sector in Australia remain meagre.

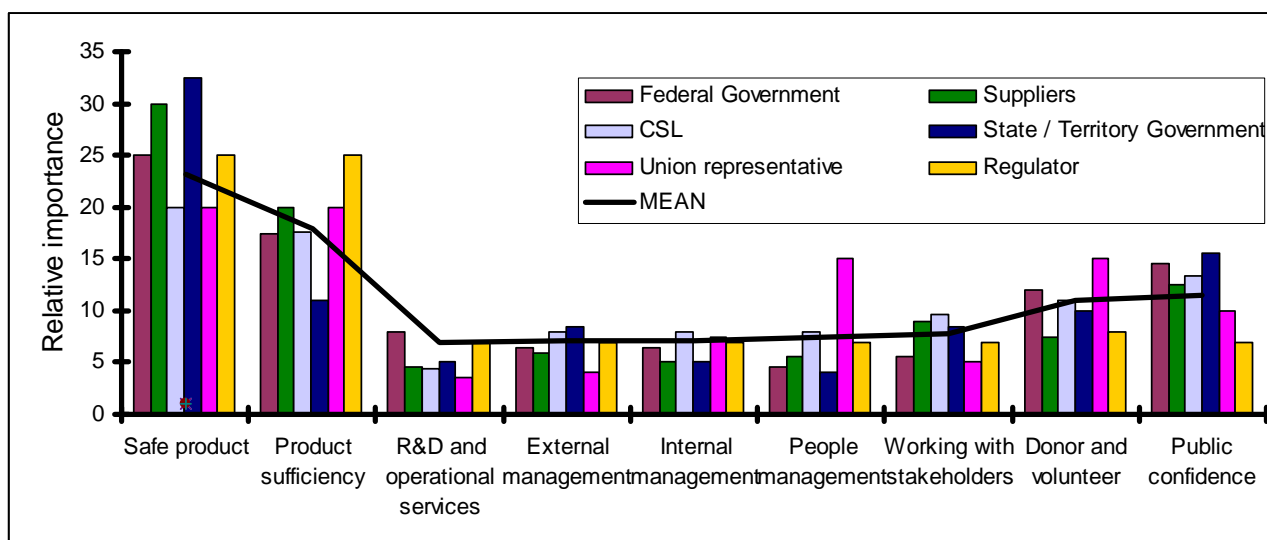


Figure 1: KPAs via First Half of Stakeholder Groups

3.2 Content Analysis Method

A content analysis of ARCBS AR and ICR between 2002 and 2005 was conducted.

This counted the frequency with which different IC attributes occur in these reports.

This study examined the disclosure of IC information using content analysis. It considered only the quantum of information disclosure, not the type of disclosure by examining the form of the disclosure (that is monetary, non-monetary and declarative). To undertake content analysis, the IC items collected from the ARCBS reports were coded. Each occurrence of an item was coded by the type of media the item appeared in, that is, either the AR or the ICR, the number of incidences and the frequency of occurrences calculated. The ICR framework proposed by Sveiby (1997, pp. 8-11) and later modified and used by Guthrie and Petty (2000), Guthrie et al. (2004, p. 286), and Guthrie, Petty and Ricceri (2006) was modified and adopted as the Not For Profit Disclosure Instrument for this study. The framework is provided in Table 3. The framework is composed of three main dimensions: internal capital, external capital and human capital. It has 32 elements.

Table 3: NFP ICR Framework

Internal Capital	External Capital	Human Capital
1. Management philosophy / Culture 2. Organisational structure 3. Management processes 4. Policies and procedures 5. Information systems / Technology 6. Intellectual property 7. R & D 8. Quality of services / Products	9. Organisation name / Brands 10. Alliances & partnerships 11. Licensing / Franchising 12. Distribution channels 13. Favourable contracts 14. Community 15. Customer 16. Supplier 17. Consultants 18. Financial relations	19. Education 20. Training 21. Learning & development 22. Innovation 23. Employee no. / Demographics 24. Work-related competencies 25. EEO / Diversity 26. Involvement in community 27. Industrial relations 28. Employee thanked 29. Compensation / Remuneration 30. Career planning / Development 31. Senior executive performance & results 32. Knowledge / Competency

Internal capital includes the systems, policies, culture and other ‘organisational capabilities’ developed to create value. External capital covers the connections that people outside the organisation have with it, and human capital includes the know-how, capabilities, skills and expertise of the employees. This definition is compatible with a number of other schemes in the ICR literature, which variously describe external (customer-related) capital, internal (structural) capital and human capital (Roos et al., 1997; Stewart, 1997; Sveiby, 1997). Hence, an approach consistent with the broader literature was adopted in this study.

Key words were selected to indicate these attributes and content analysis was performed in all six documents.

4. Why they report IC?

The following briefly summarises our findings concerning why the ARCBS produced ICR and included information in their AR.

The ARCBS's first ICR emerged from a perceived need within the organisation to publicise its publicly funded research work. Although this information was previously incorporated in AR¹, a different audience with different communication needs was identified for this information, and a distinct ICR was developed. The AR is more general and intended for a broader audience. The ICR is aimed at two more specific audiences – the agencies which fund their research and development (R & D) activities (the Australia Research Council and the National Health and Medical Research Council) and external collaborators (both potential and current). The ICR is intended as a companion piece to the annual report, although it can be read independently. It operates essentially as an externally focused research 'brochure' that summarises the year's IC activities.

The ARCBS looked to other international blood service suppliers in their formulation of ICR, including the English, American and Canadian Blood Services. No specific reporting criteria were followed, other than the communication criteria of the ARCBS. The format of the report is essentially determined by the staff responsible for

¹ Interviews were conducted with a number of key ARBCS staff during 2006.

it. Although the report is not audited, it is perceived internally to be a valuable and effective document.

An understanding of the contextual factors impacting the ARCBS over the period during which these reports were developed informs the interpretation of the content analysis findings (see, Fletcher et al., 2003). Table 4 maps contextual factors into three categories operating at the macro, meso and micro levels.

Table 4: Factors influencing ARCBS annual and ICR content

Macro (international)	<ul style="list-style-type: none">• International public health issues such as Variant-CJD; Hepatitis B and C; HIV-AIDS, etc;• Need to keep abreast of international expertise and ensure best practice at ARCBS.
Meso (external)	<ul style="list-style-type: none">• Relationships with private medical bodies such as CSL laboratories;• Highly regulated operating environment through bodies such as the Therapeutic Goods Administration;• Establishment of a new centralised funding and regulatory body - the National Blood Authority (NBA);• Establishment of common standards and procedures – the National Blood Management System (NBMS).
Micro (internal)	<ul style="list-style-type: none">• Challenges associated with the assurance of a safe and sufficient blood supply to the Australian community;• Restructure associated with federation of eight semi-autonomous state and territory blood supply bodies.

The significance of these contextual factors is evidenced in ARCBS report content over the period and will be explored in further detail in section five.

Our original study explored the value dimensions of the ARCBS from an external stakeholder perspective (Guthrie et al., 2002; Fletcher et al., 2003). Eleven different stakeholder groups were surveyed and there was broad agreement on the four most highly valued key performance areas: safe product; product sufficiency; donor and volunteer management; and public confidence (see, Figure 1 above). Content analysis

findings reveal that these areas are frequently covered in both annual and IC reports. This will be explored further in section five.

IC is reported through ARCBS AR and ICR. Initial and cursory observations indicate that the audience for the former contains a broader range of stakeholders than the latter as it touches on many aspects of ARCBS operations and performance. ARCBS ICR are targeted towards a specific audience and focus heavily on 'innovation' or R & D activities:

The Innovation Report is designed and presented to give our stakeholders, with full disclosure, a clear account of the world class research and future organisational capability being developed in the Knowledge and Innovation (K&I) portfolio (ARCBS 2004, p.3).

The critical significance of innovation to the achievement of ARCBS strategic goals is further justification for the existence of a distinct innovation report:

Innovation is essential to the success of our blood service ... Through cutting edge scientific and medical research, we are growing organisational capability and seeding the foundation of a technologically driven future (ARCBS, 2005, p.1).

5. How the ARCBS report their IC?

This section will present the findings via several themes including the different emphasis on categories, across all reports, so within internal, external and human capital categories, and finally within attributes.

The first theme is the difference in emphasis between internal, external and human capital in ARCBS AR and ICR (see, Table 5). Table 5 reveals that there is greater balance in the information provided across the three elements of IC in the ARCBS's ICR than in its AR.

Table 5: Total difference in emphasis between reports

	AR	ICR
Internal Capital	43%	37%
External Capital	40%	33%
Human Capital	17%	30%

The most reported category in both sets of reports was internal capital with 43% for the set of AR and 37% for the set of ICR. As will be indicated later in detail this was mainly made up of the elements policy and procedures, quality, R & D and information technology. The second category was external capital with 40% of the total disclosures in the AR and 33% of total disclosures in the ICR.

Human capital is not emphasised to the same extent as the internal and external capital in the ARCBS AR. There was a higher incidence of human capital attributes such as 'education', 'innovation' and 'knowledge and competency' in the reports. This could be due to the nature of the professional class of the audience for IC reports, such as clinicians and medical researchers. Similarly, research funding bodies and collaborators are more concerned with matters such as staff qualifications, publications and innovative research than a broader audience.

For example, the 2003/2004 ICR recognises the importance of human capital:

People make the difference, not systems. The ARCBS investigators who are compelled to know why, make this Innovation Report possible (ARCBS, 2004, p.5).

This suggests that the contribution of competent staff to the achievement of organisational objectives is not only recognised, but highly valued. Similarly, the reputation of ARCBS for safety and sufficiency issues due to its skilled staff is reinforced:

ARCBS provides one of the safest blood services in the world and a key reason for this is the capability and know-how of people comitted to providing excellence through purposeful inquiry (ARCBS, 2003, p.2).

The second theme relates to the different emphasis given to the range of internal capital attributes in the AR and ICR (see, Table 6). Policies and procedures and quality issues are the top two attributes occurring in AR, whereas R & D is the most frequently mentioned attribute in ICR. Quality, IT and policy and procedure issues follow with lower levels of incidence. However, R & D in the ICR stands out.

Table 6: Main Internal capital attributes

	AR	ICR
Internal Capital		
Policies / procedures	21%	4%
Quality	18%	9%
R & D	16%	62%
IT	10%	8%

There are several factors that could explain these observations, including the stated mission of the ARCBS and other organisational factors. The frequent incidence of quality attributes in ARCBS AR relates to the stated mission of the organisation, which is the assurance of a sufficient and safe blood supply to the Australian community.

Organisational factors explain the incidence of policy and procedure attributes. The ARCBS (2000, p.3) describes itself as:

a public sector organisation specialising in transfusion medicine and transfusion science, which provides a unique link between the community of blood donors and patients in the health care system requiring blood products and associated services.

Since its foundation in 1996, the ARCBS has undergone significant organisational changes. This has involved the federation of eight semi-autonomous bodies into the national system that currently exists. The National Blood Authority (NBA) and a National Blood Management System (NBMS) have been established, which has led to nation-wide process integration according to common standards for blood supply. These factors forced a focus on putting standardised, centralised policies and procedures in place to support and ensure best practice in the national restructure of the ARCBS. The high incidence of policy and procedure attributes is also a reflection of the ARCBS's focus on quality and supply issues – effective management processes are a means to achieve sufficient and safe blood supply.

In contrast, ARCBS ICR focus on R & D issues in their coverage of internal capital. The ARCBS has a long history of undertaking R & D initiatives. The organisation views its R & D program as its:

inter-generational responsibility to maintain and retain an effective research and development capability for future needs (ARCBS, 2002, p.2).

Through R & D, the ARCBS aims to ensure its readiness to respond to emerging challenges and to address its duty to the Australian public as the national provider of a sufficient and safe blood supply:

The ARCBS Research and Development Portfolio supports critical intelligence gathering, which underpins the current and future safety of the blood service for all Australians (ARCBS, 2003, p.2).

The incidence of IT attributes relates to the management of information through IT systems. Data migration to a unified system was a challenge emerging from the organisational restructure with many significant projects undertaken to integrate national systems and processes.

There are also differences in how external capital issues are communicated between ARCBS AR and ICR (see, Table 7). While supply issues feature most frequently in both, customer relations are the second most frequent attribute in ICR and financial relations are the second most important feature in AR.

Table 7: External capital attributes

	AR	ICR
External Capital		
Supply	54%	51%
Financial relations	15%	7%
Community relations	10%	6%
Customer relations	7%	25%

The occurrence of supply issues in both types of report reflects the overriding significance of blood supply issues to the organisation. This is expressed in its mission statement, which is:

To share life's best gift by the provision of quality blood products, tissues and related services for the benefit of the community (ARCBS, 2005, p.1).

Attracting and retaining donors is a critical supply challenge for the ARCBS and consistently occurs as a key issue in all six documents:

We would like to pay tribute to our dedicated, voluntary donors without whom we could not function. (ARCBS, 2005, p.4).

The priority of supply remains a critical issue for the ARCBS. It was one of the key findings of earlier IC research into ARCBS (Guthrie *et al.*, 2002). Its prominence in the AR and ICR reinforces both the specific vigilance of the ARCBS in this matter as well as the general importance of IC in organisations (private or non-profit) who engage in the public management of health (Steane and Guthrie, 2004).

Customer relations feature often in ARCBS ICR because effective patient care is an important focus of R & D programs:

A key focus of the K&I Portfolio is to work across the organisation to facilitate work that benefits our donors and the patients who receive our products (ARCBS, 2004, p.4).

If donors represent the supply end of the ARCBS spectrum then the hospitals who treat patients in need of blood are its customers. Ensuring effective patient care through blood supply is an important ARCBS priority.

Financial relations are communicated more often in AR due to the nature of ARCBS funding arrangements. The organisation receives some charitable donations through the Red Cross, but the majority of funding comes through the Commonwealth, State and Territory Governments – the key stakeholder audience for its AR. The ARCBS has been negotiating a new funding agreement with the NBA since the latter's inception, which explains the prominence given to financial relations in its AR in recent years.

The occurrence of community relations relates to the priority the ARCBS places on sustaining and building public confidence in its services. Again, this focus remains a key priority since reported findings of earlier research (Guthrie et al., 2002).

Remuneration, competency and education are the three most frequently mentioned human capital attributes in ARCBS AR (see, Table 8). The human capital attributes of most significance in its IC reports are innovation, competency and education. There is a relatively even spread between these attributes, apart from innovation which occurs more frequently in ARCBS ICR.

Table 8: Main human capital attributes

	AR	ICR
Human Capital		
Remuneration	20%	0%
Competency	19%	19%
Education	15%	12%
Innovation	13%	32%

Remuneration of executive staff is a common disclosure in AR; however, the communication of other human capital attributes reveals more about how the ARCBS perceives the value of its staff, in particular.

It is interesting to observe that competency and education feature strongly in both AR and ICR:

(Human Resources) enable ARCBS to safely and efficiently meet its business objectives by providing sufficient staff, with the appropriate qualifications and skills (ARCBS 2005, p.20).

This is an indication of the high regard the ARCBS has for the knowledge and skills of its staff and the importance it perceives in maintaining those assets and communicating their value to ARCBS audiences. Given this, occurrence of staff

development programs is surprisingly low. This could be explained by the ‘virtual’ nature of the organisation and its disparate locations.

The high incidence of innovation in ARCBS ICR can be explained by its association with R & D initiatives. As previously observed, R & D is a key focus of ARCBS ICR and a critical component of the Knowledge and Innovation (K&I) Portfolio. The 2004 K&I strategy was to:

Ensure ARCBS has a balanced national research program, develop and disseminate strategies that provide solutions for industry changes, strengthen future organisational capability and encourage transfer of knowledge (ARCBS, 2005, p.1).

The third theme is the differences within the 32 attributes and the frequency of reporting within and between the two media sources. Table 9 reveals the diversity in reporting practices and the most and least frequent elements disclosed.

Table 9: ICR Results by Media Source

Dimension / Element	Frequency of Disclosures	
	AR	IC Reports
Internal Capital		
Management philosophy / Culture	84	17
Organisational structure	175	11
Management processes	212	34
Policies and procedures	306	20
Information systems / Technology	136	36
Intellectual property	29	12
R & D	228	274
Quality of services / Products	262	41
Sub-Total	1432	445
External Capital		
Company name / Brands	71	3
Alliances & partnerships	62	20

Licensing / Franchising	3	1
Distribution channels	40	8
Favourable contracts	0	0
Community	131	25
Customer	90	101
Supplier	709	205
Consultants	16	6
Financial relations	194	29
Sub-Total	1316	398

Human Capital		
Education	75	53
Training	63	16
Learning & development	16	14
Innovation	65	112
Employee no. / Demographics	3	0
Work-related competencies	25	28
EEO / Diversity	11	20
Involvement in community	44	14
Industrial relations	5	0
Employee thanked	30	22
Compensation / Remuneration	102	0
Career planning / Development	18	0
Senior executive performance & results	0	0
Knowledge / Competency	100	67
Sub-Total	557	346

Total Disclosures	3305	1189
Avg. companies reported per report		

6. Conclusions

This study provided an assessment of ICR practices in one organisation, the ARCBS, a NFP organisation. It included a comparison of results via the AR and the ICR.

It was found that, unlike prior studies on corporate ICR, the amount of ICR is high when examined by a number of elements. Only a few elements were not reported. However, the incidence of reporting IC varied between the two types of reports.

As indicated above there was different patterning in the elements reported and incidence of disclosure over a short period of time (i.e. three years). This highlights

the need for the establishment of a generally accepted framework for ICR to enable credibility, measurability and comparability over time within this one organisation.

Turning to another area of inquiry, the study examines the high incidence of certain elements in the sample. The high incidence of innovation and R & D in ARCBS ICR is a reflection of the overriding importance of the ARCBS research program. While the ICR open with an overview of broader IC activities, they are largely a synopsis of R & D portfolio activities, highlights, publications and collaborations, and have been referred to internally as 'R & D brochures'.

The reports do not trace the process of value creation through R & D, although they do align some R & D projects with the achievement of strategic management challenges, such as the quality of blood supply. Research into a reliable test for malaria, which would prevent the loss of approximately 35,000 red blood cell donations, is an example of this alignment, representing good practice in IC management, measurement and reporting (ICMMR) (Boedker et al, 2005). ARCBS AR generally communicate the application of IC to strategic management challenges in a positive way. In this regard, the ICR is more of a supplementary document and companion piece to the AR, than a stand-alone publication describing the process of value creation through the utilisation of IC resources and KM activities.

These findings illustrate ARCBS as an organisation that has expended considerable focus and effort into developing the framework for effective IC management. Its processes and procedures have been the focus of attention due to its recent restructure and the establishment of the NBA and NBMS. While systems and structures have

been developed, there has been less emphasis placed on the 'people' component of IC.

The correlation between stakeholder concerns and the communication of those concerns in ARCBS reports is evidenced in all six documents. The priority areas identified by Guthrie *et al.* (2002) and Fletcher *et al.* (2003) occur frequently - safe product, product sufficiency, donor and volunteer management, and public confidence. However, public confidence is given less explicit treatment, but rather addressed implicitly by the treatment of the first two issues.

This paper concludes that the ARCBS has already established IC reporting; however, further work is required to progress the ICR from a communication of R & D portfolio initiatives to a broader exploration of the value IC attribute brings to the ARCBS. Such an exploration would also provide opportunities to monitor how IC is currently managed within the organisation and reveal opportunities to maximise the performance of these assets.

ICR guidelines and expertise are required in order for ARCBS to expand on current efforts. To this end, it is recommended that the ARCBS engage with the Society of Knowledge Economics in the development of Australian Extended Performance guidelines (SKE, 2006) to produce an ICR in accordance with these guidelines as they become available.

This study has provided insight into the content of ARCBS ICR. However, further research is required to investigate how IC measurement, management and reporting is

actually embedded in the organisation. This research should adopt an ‘inside-out’ perspective in order to effectively capture the role of managing, measuring and reporting IC in the process of value creation.

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