Office of the Provincial Auditor
500-330 Portage Avenue
Winnipeg, Manitoba R3C 0C4

June 2000

The Honourable Peter M. Liba
Lieutenant Governor of Manitoba
Room 235, Legislative Building
Winnipeg, Manitoba
R3C 0V8

Dear Sir:

I have the honour to submit herewith our June 2000 Report on Value-For-Money Audits to be laid before Members of the Legislative Assembly in accordance with the provisions of Section 13 of the Provincial Auditor's Act.

Respectfully submitted,

Jon W. Singleton, CA, CISA

PROVINCIAL AUDITOR

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URBAN SHARED SERVICES CORPORATION

Implementation of Shared Food Services

Winnipeg Regional Health Authority

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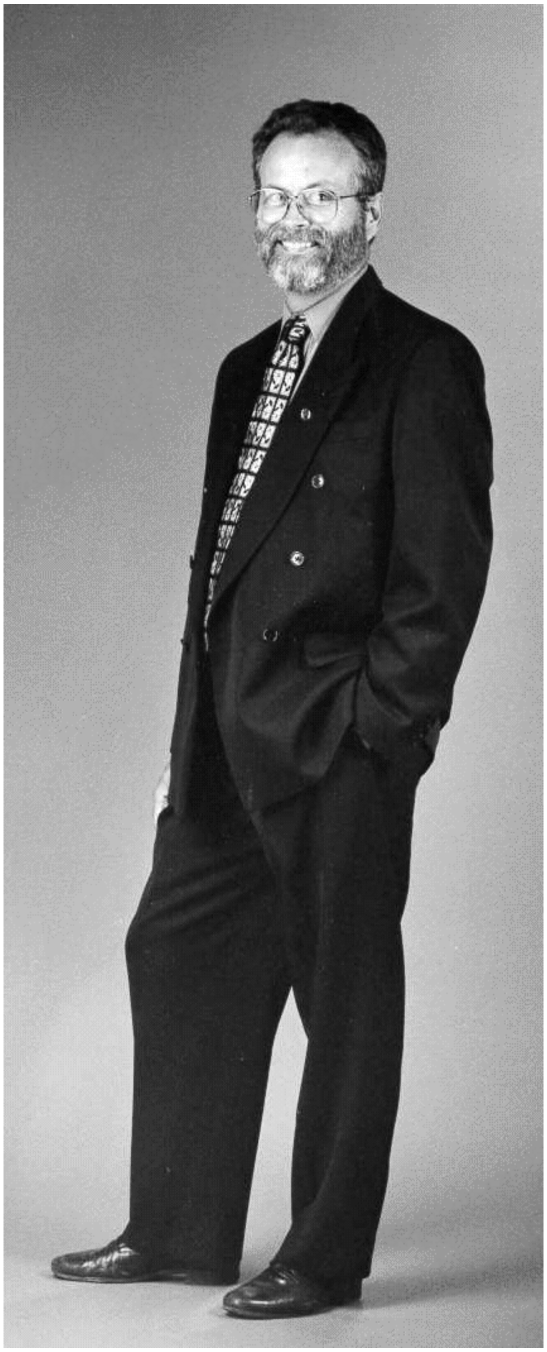


I would like to take this opportunity to put our review of the implementation of centralized hospital food services into context. When we began our review, it was obvious to all that the implementation had not gone well and that changes were required to enable the system to meet its original objectives. As a result, we decided to focus our review on what could be learned from the mistakes made that would be useful to public sector managers. I greatly appreciate the candour and assistance provided to us by all those we interviewed in developing this report. Their insights will be invaluable to anyone involved in large implementation projects.

It is important to acknowledge at the outset that mistakes will always be made in large complex projects such as this. Since the system chosen for Manitoba is one that is not commonly found elsewhere, the risks of error were multiplied. It is, of course, one of the difficulties of working in the public sector that mistakes more readily become subject to media and public scrutiny. This is especially true in such a sensitive area as the provision of food to acute care patients and long-term residents of health care facilities.

Having said that, however, it is clear that there are opportunities to learn from the mistakes made. A key lesson learned is that clearly defined roles and responsibilities that are understood by all parties would have gone a long way to reducing the number and significance of mistakes made. It also became clear that for relationships to work effectively in a complex situation, trust, openness and transparency are essential.

We must also not lose sight of the fact that despite the difficulties encountered, much was accomplished. The efforts made by all those involved with the system to deal with the problems that arose were impressive. Today the system is reasonably stable. Realistic plans are being developed that have a reasonable chance of seeing the whole system implemented, even if at a somewhat higher cost than originally envisaged.

Jon W. Singleton, CA, CISA

Report Overview

HISTORY

The Urban Shared Services Corporation (USSC) was created by nine Winnipeg based health care facilities to deliver shared services.

In 1994 USSC was incorporated under the Manitoba Corporations Act and in 1996 was registered as a health care facility under the Manitoba Health Services Insurance Act. Effective April 1, 2000 USSC became a division of the Winnipeg Regional Health Authority.

Currently, USSC has two lines of business, namely:

- contracting, purchasing, warehousing and distribution, and
- food services.

In September 1997, USSC signed a five year contract with Aramark Canada Ltd. (Aramark) to manage the Shared Food Services Regional Distribution Unit (RDU); the production plant. RDU staff purchase food and supplies, prepare food trays and deliver the food to the facilities. This service began in September 1998 and is currently being provided to seven of the nine original facilities plus three new long-term care facilities.

REASON FOR THE REVIEW

We conducted this review in response to concerns raised by various individuals and groups about the development and implementation of the shared food services component of the Urban Shared Services Corporation.

REVIEW PURPOSE, SCOPE AND APPROACH

We conducted a review rather than an audit. Our aim was to gain an understanding of the events that unfolded and to seek out various perspectives on the causes and consequences of key events, issues or problems. From this information we endeavored to identify what worked well, what could have been done that wasn't, and what should be avoided in future undertakings of a similar nature.

We structured our review to answer the following two questions:

1. **WERE KEY ELEMENTS IN THE DEVELOPMENT AND IMPLEMENTATION OF SHARED FOOD SERVICES APPROPRIATELY MANAGED?**
2. **WAS A FAIR PROCESS FOLLOWED IN AWARDING THE CONTRACT FOR THE RETHERMALIZATION EQUIPMENT?**

We did not review the selection process for the shared food services contract.

Our review was conducted between May 1999 and March 2000.

Our examination was conducted in accordance with the standards for assurance engagements recommended by the Canadian Institute of Chartered Accountants.

IMPORTANT CONSIDERATIONS

In assessing the quality of decisions made and the accomplishments of USSC regarding the implementation of shared food services, it is important to understand that this new initiative is of a magnitude not tried anywhere else. The potential to underestimate the complexity of the project was great. An independent consultant recently hired by USSC and Aramark described the initiative as follows:

> *"...the concept of a major program to centralize foodservice for so many hospitals and to introduce a delivered meal service using primarily out-sourced products was both bold and imaginative....the scale of this operation and the introduction of centralized ware washing took it to new levels within the health care arena."*

In designing and implementing the initiative, management and the board needed to make many assumptions. Some trial and error was inevitable as there was virtually no past experience to fall back on. It must be recognized that some mistakes are a normal output of any major initiative. It would be unrealistic to expect otherwise.

The shared food service initiative was being designed and conceived at a time when several significant health care initiatives were underway, in particular:

- the establishment of regional health authorities,
- the pressure to contain or reduce costs, and
- greater emphasis on home based care, and related bed closures.

As a result, the impact of regional health authorities on hospital operations was not known and future service levels for shared food services were unclear.

CRITICAL SUCCESS FACTORS

In conducting our review we identified what we believe are six critical success factors. By critical success factors we mean elements that were so significant to the success of the initiative that they either had to be in place prior to rolling services out to the facilities or that the risks associated with not having these elements in place had to be very carefully managed so as to minimize their impact. In our view, the critical success factors were:

- An appropriately commissioned RDU designed to meet functional requirements.
- Built-in redundancies of critical systems at the RDU to ensure continuous and safe operation.
- The appropriate implementation of The CBORD Group, Inc. (CBORD) database system (an automated system for purchasing, tracking and producing food requirements and generating patient specific tray tickets for tray assembly).
- System-wide acceptance by the relevant stakeholders of the menu and diet compendium.
- Building on successful facility implementations, that is learning from successes and mistakes and applying that knowledge.
- Stakeholders that understand and support the shared food service initiative.

As noted in many of our findings below, certain of these factors were either not in place, or the risks not sufficiently managed to ensure an uneventful and successful implementation.

CONCLUSIONS AND KEY FINDINGS

1. WERE KEY ELEMENTS IN THE DEVELOPMENT AND IMPLEMENTATION OF SHARED FOOD SERVICES APPROPRIATELY MANAGED?

We concluded that while the development and implementation of shared food services was being managed in a difficult and challenging environment, certain decisions were made, despite advice to the contrary, which likely contributed to the troubles of the Corporation rather than mitigate the risks.

These decisions include:

- Proceeding to the RFP stage for shared food services without first developing a solid agreement among the participating facilities on a standard menu and diet compendium.
- Signing an agreement with Aramark that did not include a provision for price guarantees.
- Moving to 100% outsourcing of food, without first determining the cost/benefit of this strategy. We noted certain facilities had recently renovated kitchens that could be utilized for in-house food production.
- Compressing timelines in commissioning the RDU and in bringing facilities onto the food system despite advice received and concerns expressed by stakeholders.
- Commissioning the RDU and commencing production prior to it being 100% complete.
- Certain cost-cutting or containment measures.

Our key findings include:

- During the development process, USSC spent considerable amounts of money engaging expert consultants to help set initial direction. We are concerned that some very reasoned advice from these consultants was not sufficiently followed. Actual events, in our view, have shown the value of the advice provided.
- The 1995 Pricewaterhouse/Marrick Watts (PW/MW) Business Plan set the initial direction for the initiative. This direction was reflected in the 1996 KPMG Request for Proposal. We noted that the 1996 Aramark Business Plan was substantially consistent with the direction provided in the RFP. The 1997 Aramark Food Services Agreement, however, deviates substantially from the direction provided in the 1996 Aramark Business plan. We acknowledge, however, that an initiative as large, complex and unprecedented as this one is, will undergo directional and structural changes as issues are studied, debated and varying perspectives considered.

  We noted that USSC's RFP sought a "partner" in the food services area and practical solutions to the general direction provided. Nonetheless, the proposal that was eventually accepted bore little resemblance to the initiative as it was ultimately delivered. While changes to program elements were generally presented to the Board, we are concerned that more detailed assessments of the impacts of proposed changes were not conducted. Such assessments would help ensure the appropriateness of the change and that the impact on implementation and on other program areas was adequately considered and planned for. In particular, we noted the following:

- *There was a lack of clarity regarding the respective roles and responsibilities of USSC and Aramark.*
- *Significant amendments were made to the proposed menu and diet compendium once food service began at the facilities. In our view, there was ample opportunity prior to implementation for the clinical dieticians, Aramark and USSC to work more effectively together to resolve menu and diet compendium concerns.*
- *More bulk food service was required than originally anticipated.*
- *The 1996 Aramark Business Plan called for the in-house production of 20% of the systems food requirements using the existing kitchen facilities at the Deer Lodge Centre. Early in the contract negotiation process, however, USSC decided to outsource 100% of food requirements.*
- *Staffing was based on seniority rather than job qualifications.*
- *Price guarantees were not included in the food service agreement.*
- *Provision of non-patient food service by Aramark was made optional by USSC.*

The above noted changes to the program areas had two significant impacts on the planned performance levels of shared food services. Firstly, the changes contributed to reduced capacity at the RDU, from a planned level of 10,000 meals per day to a maximum production level of 6,800 meals per day. Secondly, the changes significantly increased food and labour costs per meal.

- The RDU was built to meet the original functional requirements as described in the 1996 Aramark Business Plan. While Aramark was required to sign off regarding the suitability of building design from a workflow perspective only. They did so on January 19, 1998. Aramark was also required to sign off on the suitability of equipment specifications. This sign-off has not yet occurred. Aramark officials indicated that they had no disagreement with the equipment manufacturers listed by USSC but that they were not provided with the equipment specifications until some of the equipment was already in place. Aramark officials advised that they had identified a number of concerns regarding the equipment but acknowledged that, in many cases, they would not be able to determine if there was a major deficiency at the RDU until it was up and in production.

- The need for a more cautious approach when implementing facilities. We identified two concerns with the implementation process as follows:

  - *aggressive timelines that resulted in a very difficult implementation process, and*
  - *the need for more communication and training at facilities.*

  The CEO believed that it was imperative to have all facilities on the system prior to the scheduled date of the first mortgage payment. To accomplish this objective, USSC insisted on shortening some critical implementation timeframes considered by many stakeholders to already be aggressive. In our view, this approach generated significantly greater risk of system failure and added to the complexity of the process. While we can understand why the CEO would be motivated by the optics of this scenario and the financial implications to the system overall, we nonetheless question the wisdom of linking full implementation to the date of the initial mortgage payment.

- Numerous sources advised us that many of the problems experienced to date are the result of, or were exacerbated by, the lack of buy-in by some facility staff in the shared food service concept. These problems would indicate to us that considerably more communication and education was required before initiating services.
- While reports were provided to the Board on a regular basis by the CEO, there were mixed views among the board members as to how well they were informed. Certain Board members were not satisfied with the quality of the information provided and were concerned that the CEO worked closely with the Executive Committee of the Board to the exclusion of other Board members.
- When sitting on the USSC Board, facility CEOs had dual roles. Firstly, to ensure the best interests of USSC were served and, secondly, as customers, in pursuing the best interests of their respective facilities. To ensure an effective Board is in place and that appropriate decisions are made, these two roles need to be adequately balanced. Our discussions with Board members revealed different perspectives on members' abilities to maintain this balance.
- Cost motivated decisions increased operating risks. Certain stakeholders believe that the risks associated with certain decisions outweighed the benefits of the cost savings. These decisions include the speed up of implementation, limiting direct staff to assist the CEO, opting for the "milk-run" delivery model, and constructing the RDU without certain important redundancies.

2. WAS A FAIR PROCESS FOLLOWED IN AWARDING THE CONTRACT FOR THE RETHERMALIZATION EQUIPMENT?

We concluded that a fair process was followed in awarding the rethermalization equipment contract.

Our key findings are:

- Evaluation criteria were determined and agreed upon by the evaluation committee members before the RFP was issued.
- All potential suppliers were advised of the contract opportunity at the same time.
- Financial bids were not opened until after the equipment of both vendors was evaluated against technical evaluation criteria.
- The recommendation of the committee was consistent with the results of the evaluation process.

KEY LESSONS LEARNED

Our detailed report includes 18 lessons learned. We believe the key lessons learned are:

- Ensure all key elements of a shared service arrangement are clearly defined before proceeding.
- Defining and understanding the roles, responsibilities and accountabilities of all parties contributes to efficient and effective operations.
- Identify critical success factors early in a project's development process to guide decision-making and risk management.

- Involving key stakeholders in developing solutions to problems is paramount to the success of a shared services initiative.
- The desire to implement should be tempered by the need to ensure the organization is sufficiently prepared to make the transition.
- Encourage all activities that will contribute to increased buy-in by all levels of staff.
- Develop an aggressive communication plan and double it.
- Board members should always challenge the information provided by the CEO to ensure they obtain a complete understanding.
- Ensure the benefits of any cost cutting measures outweigh the associated risks.

Introduction

We conducted this review in response to concerns raised by various individuals and groups about the development and implementation of the shared food services component of the Urban Shared Services Corporation.

WHAT ARE SHARED SERVICES

Shared services is a business strategy for reducing costs and improving the quality of internal service functions. As organizations are faced with increasing competition for resources and a need to reduce operating costs, internal service functions are coming under intense scrutiny and are being required to demonstrate their value within the overall business strategy. Adopting a shared services approach or model is about creating an internal marketplace for these internal service functions and operating each as if it were a business.

Historically, internal service functions have moved between centralization and decentralization, and more recently, outsourcing to reduce costs, increase internal effectiveness, and improve accountability. Shared services is fundamentally different from centralization, decentralization or outsourcing although it does incorporate some of the characteristics of these trends. Shared services requires a significant shift in corporate culture and accountability; internal service functions must operate as a business.

Lately shared services has gained acceptance as a viable alternative by public sector agencies and organizations that envisage this strategy as a solution to reduce funding problems. However, shared services is not an easy strategy to implement successfully. It requires strong and visionary leadership, not only in making the initial decision but also throughout the process of implementation. In cases where public agencies or institutions are deciding to form an independent shared service organization, the leaders of each agency must all fully commit to pursue the model as a business strategy. There needs to be a clear conviction that greater efficiencies will be achieved and that the effectiveness of internal service groups will be increased.

About the Urban Shared Services Corporation

HISTORY

The Urban Shared Services Corporation (USSC) was created by nine Winnipeg based health care facilities to deliver shared services. The nine facilities are:

St. Boniface General Hospital

The Health Sciences Centre

Concordia Hospital

Deer Lodge Centre

Misercordia General Hospital

Riverview Health Centre

The Salvation Army Grace General Hospital

Seven Oaks General Hospital

Victoria General Hospital

In 1994 USSC was incorporated under the Manitoba Corporations Act and in 1996 was registered as a health care facility under the Manitoba Health Services Insurance Act. Effective April 1, 2000, in accordance with a transfer agreement, USSC became a division of the Winnipeg Regional Health Authority (WRHA). During its tenure, USSC's board was not government appointed, but rather was comprised of the Chief Executive Officers (CEO) from each of the nine Winnipeg facilities and five members appointed by the facility CEOs from the community at large. In addition, a WRHA representative and USSC's CEO sat as non-voting members.

USSC's original mission statement was as follows:

> *"USSC 's mission is to provide flexible and responsible services to its customer facilities in an effective and cost efficient manner".*

PROGRAM ORGANIZATION AND SERVICES PROVIDED

The Board established numerous committees, sub-committees and work groups consisting of members of the Board and representatives from each of the facilities to work on the development and implementation of shared services.

Since its inception, USSC has had a General Manager (March 1994 To March 1997), a CEO (March 10, 1997 to July 1999), an interim CEO (July 1999 to December 1999), and another interim CEO (January 1, 2000 to the present).

In 1995 USSC entered into a Master Agreement with the nine facilities. Under this Agreement USSC agreed to provide the following services:

- **Contracting, Purchasing, Warehousing and Distribution**

  USSC negotiated contracts on behalf of the nine facilities. The facilities would pay suppliers directly. USSC began this service March 1996.

- **Shared Food Service**

  In October 1997, USSC signed a five year contract with Aramark Canada Ltd. (Aramark) to manage the Shared Food Services Regional Distribution Unit (RDU); the food production and tray assembly plant. RDU staff purchase food and supplies, prepare food trays and deliver the food to the facilities. This service began in September 1998 and is currently being provided to seven of the nine original facilities plus three new long-term care facilities (Calvary Place, Misericordia Place, Concordia Place). This represents approximately 6,800 meals a day. Of the original nine facilities, St. Boniface General Hospital and Health Sciences Centre are not yet receiving the food service. These two facilities require in total approximately 3,500 meals a day.

- **Laundry Services**

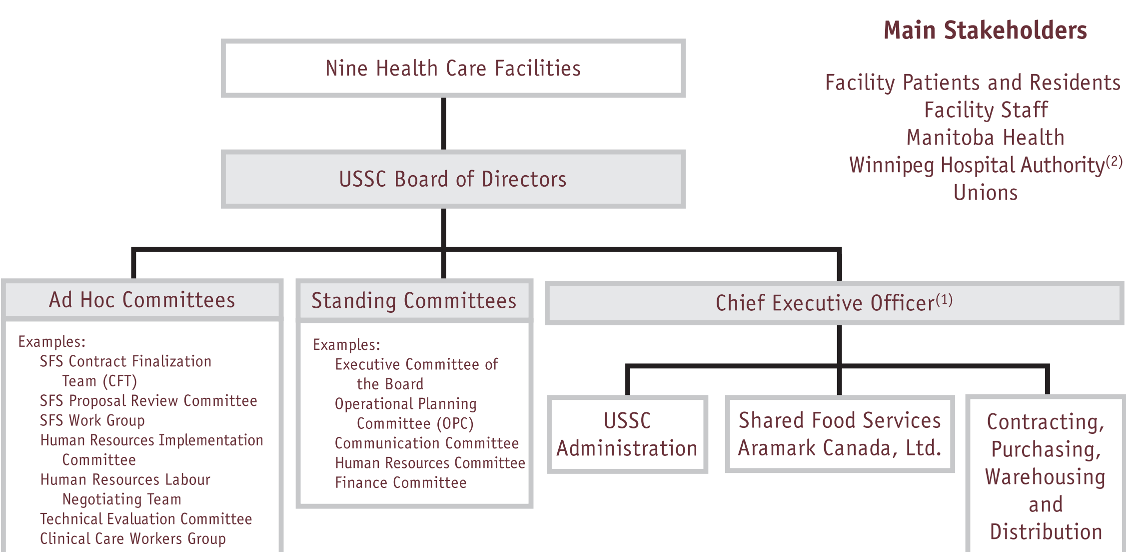
  Implementation of this service has been delayed pending the full and successful implementation of shared food services.

- **Biomedical Waste Disposal Services**

  This service is no longer a requirement of USSC.

FIGURE 1

USSC Structure
as at March 31, 2000

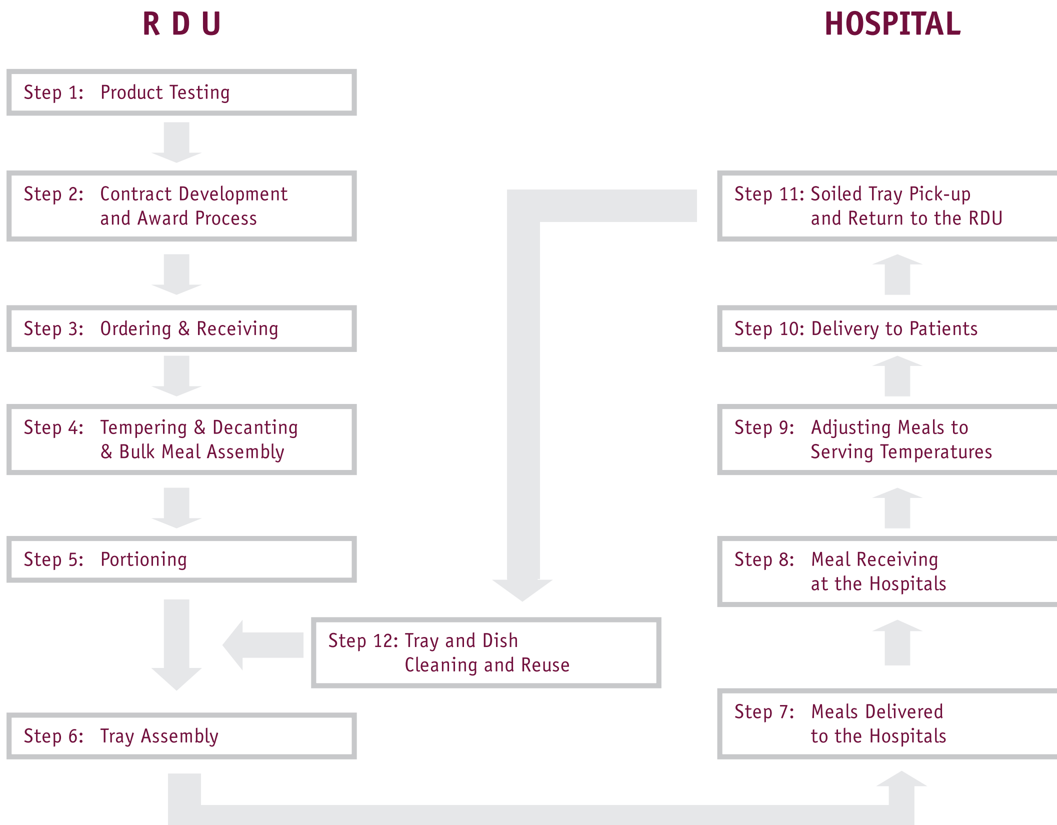


KEY:
(1) Chief Executive Officer was an ex-officio member of committees and the Board
(2) Effective December 1, 1999 the Winnipeg Hospital Authority was renamed the Winnipeg Regional Health Authority

Production and Distribution Process

Figure 2 outlines the main steps in the Shared Food Services production and distribution process.

FIGURE 2



Source: Urban Shared Services Corporation

Overview of Key Statistics

FIGURE 3

Total Operating Costs for the Year Ended March 31, 1999

	Total Costs	*Other Services*	*Shared Food Services*
Supplies - food and disposables	$ 3,047,000	$ 305,000	$ 2,742,000
Personnel	3,057,000	1,036,000	2,021,000
Management fees	639,000		639,000
Transportation services	331,000		331,000
Other costs	2,650,000	1,434,000	1,216,000
Debt costs	1,010,000	2,000	1,008,000
Total costs	***$ 10,734,000***	***$ 2,777,000***	***$ 7,957,000***
Percentage	100.0	25.9	74.1

Sources: March 31, 1999 USSC Financial Statements
Aramark Financial Analysis presented to the Board on May 17, 1999 (unaudited)

FIGURE 4

Meal Cost Analysis
for the Year Ended March 31, 1999

	Budgeted Amounts	*Actual Amounts*	*Increase (Decrease)*	*Percent Change*
Costs per meal:				
Food	$ 1.67	$ 2.75	$ 1.08	64.7
Labour	0.84	2.03	1.19	141.7
Other	1.24	2.20	0.96	77.3
Debt	0.50	1.01	0.51	102.0
Total cost per meal	***$ 4.25***	***$ 7.99***	***$ 3.74***	***88.0***
Number of meals	1,506,000	996,000	(510,000)	(33.9)
Total Meal Costs	***$ 6,395,000***	***$ 7,957,000***	***$ 1,562,000***	***24.4***

Sources: March 31, 1999 USSC Financial Statements
Aramark Financial Analysis presented to the Board on May 17, 1999 (unaudited)

The number of USSC staff at March 31, 1999 was as follows:

Full-time staff	19
Secondments	1
Full, part-time and casual staff at RDU	146

FIGURE 5

USSC EVENT TIMELINES

	1996	1997												1998												1999						
	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J
KEY DOCUMENTS																																
1996 Aramark Business Plan																																
- selected as the preferred bidder	19																															
1997 Aramark Food Services Agreement																																
- negotiation to Board approval							16																									
- signed by Aramark							23																									
- signed by USSC										9																						
1997 Newco Development Contract																																
- Board approval							16																									
- effective date										10																						
KEY EVENTS																																
CEO's term of employment				10																												16
Final meeting of Contract Finalization Team					17																											
Decision to move from 80% to 100% outsourcing of food			X																													
Decision to increase bulk food to DLC													X																			
Build Regional Distribution Unit (RDU)										21											27											
Implementation of 7 facilities																																
- Concordia Hospital																						10										
- Riverview Health Centre																						17										
- Misericordia General Hospital																						24										
- Victoria General Hospital																							1									
- Deer Lodge Centre																							8									
- Seven Oaks General Hospital																								26								
- Salvation Army Grace General Hospital																										21						
DIET COMPENDIUM DEVELOPMENT																																
First meeting of Aramark and CCWG to discuss diet compendium														29																		
Initial deadline for submission of compendium concerns - no input received															13																	
2nd deadline for submission of issues															17																	
Aramark advises USSC Board that standardization of menu types has been finalized																16																
CCWG meets bi-weekly to continue work on diet compendium																																
CCWG met with WHA to discuss their concerns re clinical needs																							30									
Diet compendium completed																											8					
CCWG meets weekly with Aramark and USSC to address their concerns																																
Clinical Liaison Position created by WHA to address clinical issues																											22					
CCWG meets bi-weekly with Aramark and USSC to continue efforts at resolving concerns																																

Key:

X	We could not determine the specific date
CEO	Chief Executive Officer
DLC	Deer Lodge Centre
CCWG	Clinical Care Workers Group
SFS	Shared Food Service
WHA	Winnipeg Hospital Authority

Purpose, Scope and Approach

We conducted a review rather than an audit. Our aim was to gain an understanding of the events that unfolded and to seek out various perspectives on the causes and consequences of key events, issues or problems. From this information we endeavored to identify what worked well, what could have been done that wasn't, and what should be avoided in future undertakings of a similar nature.

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Important Considerations

In assessing the quality of decisions made and the accomplishments of USSC regarding the implementation of shared food services, it is important to understand that this new initiative is of a magnitude not tried anywhere else. The potential to underestimate the complexity of the project was great. An independent consultant recently hired by USSC and Aramark described the initiative as follows:

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In designing and implementing the initiative, management and the Board needed to make many assumptions. Some trial and error was inevitable, as there was virtually no past experience to fall back on. It must be recognized that some mistakes are a normal output of any major initiative. It would be unrealistic to expect otherwise.

The shared food service initiative was being designed and conceived at a time when several significant health care initiatives were underway, in particular:

- the establishment of regional health authorities,
- the pressure to contain or reduce costs, and
- greater emphasis on home based care and related bed closures.

As a result, the impact of regional health authorities on hospital operations was not known and future service levels for shared food services were unclear.

Another significant hurdle that USSC needed to manage was the expectations of nine different facilities with distinct cultures; each accustomed to working independently of each other.

The human tendency to resist change can have a significant impact on the success of implementation if not carefully managed. Current literature suggests that this is particularly intense when implementing shared services. We were advised that the decision to, in effect, outsource food services was made despite the concerted and successful effort by the food service departments in some of the participating facilities to improve efficiencies and reduce costs. In addition, in January 1996 the facility food service directors jointly, and in conjunction with the clinical dieticians, developed a shared food service plan that saw shared food services delivered by existing food service personnel. As a result, the decision to proceed with a private sector service provider may have had a negative impact on the level of buy-in by food services personnel.

Level Of Projected Savings Warranted Caution

Projected annual savings were identified in patient food and non-patient food services. Estimated one-time savings were also identified regarding capital cost avoidance.

The 1996 Aramark Business Plan projected total annual savings in year 1, excluding debt servicing, of $5.8 million. This figure rose to $6.3 million in year 5.

In patient food services an annual saving of $3.3 million, excluding debt servicing, was projected in year 1. This figure rose to $3.6 million in year 5.

In non-patient food services an annual saving of $2.5 million was projected in year 1. This figure rose to $2.7 million in year 5. These savings were projected on the assumption that Aramark would manage cafeterias in all nine facilities. The government is achieving this saving by reducing the funding of the facilities by $2.5 million even though only three facilities decided to let Aramark manage their cafeterias. The nine facilities have had to introduce other measures to make up for the withdrawal of funding. We were advised by the three facilities using Aramark for the supply of non-patient food services, that Aramark had not yet achieved their stated budgeted savings. Aramark officials advised that in large part this is due to facility requests that Aramark not aggressively increase their retail prices.

The other component in projected cost savings was $7.8 million in one time capital cost avoidance. This saving is the difference between the cost of renovations that would have been necessary to upgrade existing facilities and the cost to build and equip the RDU and retrofit the facilities to handle the rethermalization carts. We note that the capital cost estimates for both scenarios were not based on firm engineering studies and, as such, were considered by many officials as uncertain and, with respect to the former, likely underestimated.

Given the relatively uncertain capital cost avoidance figures and projected annual savings in patient food service of only 1.6%, USSC had a relatively small margin for error. We believe that proceeding slowly and with caution was warranted. As noted in many of our findings below, USSC proceeded at a pace that did not ensure known risks could be adequately mitigated.

LESSON LEARNED

Ensure risks are identified and managed.

The projected cost savings were based on all nine facilities being on the system. USSC estimates that without St. Boniface General Hospital and Health Sciences Centre on the system, the projected annual savings will not be realized. With respect to capital cost avoidance, we note that revised estimates (dated February 2000) to complete the project, show total capital costs of $29.1 million. This is $10.9 million more than estimated in the 1996 Aramark Business Plan. As a result, the estimated capital cost savings will not be realized because the estimated shared food service capital costs are now $3.0 million more than the estimated capital costs to upgrade existing standalone kitchen facilities.

Critical Success Factors

In conducting our review we identified what we believe are six critical success factors. By critical success factors we mean elements that were so significant to the success of the initiative that they either had to be in place prior to rolling services out to the facilities, or that the risks associated with not having these elements in place had to be very carefully managed so as to minimize their impact. In our view, the critical success factors were:

- An appropriately commissioned RDU designed to meet functional requirements.
- Built-in redundancies of critical systems at the RDU to ensure continuous and safe operation.
- The appropriate implementation of the CBORD database system (an automated system for purchasing, tracking and producing food requirements and generating patient specific tray tickets for tray assembly).
- System-wide acceptance by the relevant stakeholders of the menu and diet compendium.
- Building on successful facility implementations, that is learning from successes and mistakes and applying that knowledge.
- Stakeholders that understand and support the shared food service initiative.

LESSON LEARNED

Identify critical success factors early in a project's development process to guide decision-making and risk management.

As noted in many of our findings below, certain of these factors were either not in place, or the risks not sufficiently managed to ensure an uneventful and successful implementation.

Conclusions, Findings and Lessons Learned

1. WERE KEY ELEMENTS IN THE DEVELOPMENT AND IMPLEMENTATION OF SHARED FOOD SERVICES APPROPRIATELY MANAGED?

What We Concluded

We concluded that while the development and implementation of shared food services was being managed in a difficult and challenging environment, certain decisions were made, despite advice to the contrary, which likely contributed to the troubles of the Corporation rather than mitigate the risks. These decisions include:

- Proceeding to the RFP stage for shared food services without first developing a solid agreement among the participating facilities on a standard menu and diet compendium.
- Signing an agreement with Aramark that did not include a provision for price guarantees.
- Moving to 100% outsourcing of food, without first determining the cost/benefit of this strategy. We noted certain facilities had recently renovated kitchens that could be utilized for in-house food production.
- Compressing timelines in commissioning the RDU and in bringing facilities onto the food system despite advice received and concerns expressed by stakeholders.
- Commissioning the RDU and commencing production prior to it being 100% complete.
- Certain cost-cutting or containment measures.

We reached this conclusion by examining the following criteria:

- Significant proposed changes to the direction or structure of the initiative should be thoroughly evaluated.
- There should be clear functional requirements for the development of the RDU to ensure the facility will handle current and forecasted facility service levels.
- The implementation process for commissioning the RDU and for bringing facilities onto the shared food system should use sound project management practices.
- There should be an appropriate decision making infrastructure.

What We Found

The Need For More Rigorous Evaluation Of Significant Proposed Changes To The Direction Or Structure Of Shared Food Services

When designing and implementing a major initiative, it is reasonable to expect that the initiative will undergo a number of changes; that it will evolve as specific events and information emerge. However, the evolution should be carefully managed. When a change is contemplated an organization should identify and understand the key factors that will enable the change. Further, the organization should assess the reasonableness or likelihood of these factors occurring and understand the impact of the proposed changes on the implementation process and on the functionality of the initiative. It is also important that an organization understand the impact of the proposed changes on its stakeholders, that they resolve the key concerns identified and that they communicate final decisions to their affected stakeholders.

It is important that proposed changes undergo a rigorous evaluation process in order to understand their effect on the goals and objectives of the initiative and to make informed decisions.

With respect to the shared food services delivered by USSC, the evolution of significant directional and structural elements is reflected through six key documents as follows:

- **1995 Pricewaterhouse/Marrick Watts (PW/MW) Business Plan**
  - prepared for Government and adopted by USSC on June 22, 1995 as the foundation for developing a shared food service
- **1996 KPMG Request for Proposal (RFP)**
  - approved by the USSC Board on June 27, 1996
- **1996 Aramark Business Plan**
  - accepted by the USSC Board on December 19, 1996 as the basis for negotiating an agreement on shared food service
- **1997 Aramark Food Services Agreement**
  - dated October 1, 1997
- **Development Contract with 3687652 Manitoba Ltd. (Newco)**
  - dated September 10, 1997
- **Credit Agreement between USSC and Newcourt Capital Inc.**
  - dated November 28, 1997

The 1995 PW/MW Business Plan set the initial direction for the initiative. This direction was reflected in the 1996 KPMG Request for Proposal. We noted that the 1996 Aramark Business Plan was substantially consistent with the direction provided in the RFP. The 1997 Aramark Food Services Agreement and actual program elements, however, deviate from the direction provided in the 1996 Aramark Business plan. We acknowledge, however, that an initiative as large, complex and unprecedented as this one is, will undergo directional and structural changes as issues are studied, debated and varying perspectives considered.

We noted that during the development process, USSC incurred costs of approximately $266,000 engaging expert consultants to help set initial direction. We are concerned that some very reasoned advice from these consultants was not sufficiently followed.

We also noted that USSC's RFP sought a "partner" in shared food services and practical solutions to the general direction provided. Nonetheless, the initiative as it was ultimately delivered was substantially different from the accepted proposal. We are concerned that decisions regarding the proposed changes to the accepted proposal were not based on sufficiently detailed assessments of the impacts of the proposed changes on implementation and functionality.

We discuss these two concerns in greater detail below.

Expert Advice Should Have Been Followed

The 1995 PW/MW Business Plan provided advice in four key areas.

Firstly, they advised that an agreement with the private sector service provider

> *"...would have to be developed carefully in order to ensure the desired quality and service results".*

Secondly, they advised that full implementation of the shared food initiative be phased in over an extended period of time. Specifically, that

> *"the Central Facility be commissioned over one month to ensure readiness and that the facilities be brought on line one per month over nine months, commencing after the RDU is commissioned".*

Thirdly, they cautioned against proceeding without a standard menu and diet compendium. They state,

> *"As a first step, starting from a point where each institution operates its own food services, there is the need for each institution to move down the 'shared' path and begin with development of:*
>
> - *Common core menus;*
> - *Nutritional care protocols and;*
> - *Operating policies and procedures".*

Finally, they advised that facilities be clustered by care type to facilitate centralized meal assembly and distribution functions. For example, one assembly and distribution centre would be developed for acute care and one for long-term care. The acute care facility would have kitchen facilities to prepare food that could not be obtained through outsourcing. This was felt to be the best approach in maintaining quality of service delivery and responsiveness.

In addition, KPMG, in making their recommendation for the preferred shared food service provider, cautioned USSC not to go forward without price guarantees.

LESSON LEARNED

The advice of paid experts should be challenged and evaluated, but in the absence of compelling reasons not to do so, should be followed.

We note that USSC did not follow much of this advice. Subsequent events, in our view, have shown the value of the advice provided. The balance of this report provides more detail regarding the consequences of not sufficiently heeding the advice that was received relatively early in the process.

Detailed Reviews Or Assessments Of Proposed Changes To The Accepted Proposal Should Have Been Conducted

Aramark officials informed us that they entered contract negotiations believing that all the major initiatives in their proposal (1996 Aramark Business Plan) were a "go". Two meetings were held with the Board in which Aramark presented and discussed their proposal.

In January 1997, the Board created the Contract Finalization Team (CFT) to manage the contract negotiation process. The team was comprised of one Board member, one senior facility executive, USSC's General Manager and USSC's lawyer. Negotiations with Aramark began immediately and were based on the 1996 Aramark Business Plan. The Board authorized the CFT to call in experts as considered necessary to obtain required information. In March of 1997, a CEO was hired. He immediately took charge of contract negotiations.

LESSON LEARNED

Ensure all key elements of a shared services arrangement are clearly defined before proceeding.

We noted that through contract negotiations and also during start-up preparations, many program elements in the 1996 Aramark Business Plan were removed or substantially amended by USSC. USSC management and certain Board members advised us that the focus was on getting the program going and to resolve issues as they arose.

LESSON LEARNED

Caution should be exercised when contract negotiations significantly influence program direction or structure.

While changes to program elements were generally presented to the Board, we believe there was a need to more fully consider the impact of these changes on shared food services before deciding how to proceed. We acknowledge, however, that USSC did not have the staff resources dedicated to shared food services to facilitate the conduct of such analyses. Elements that were substantially altered include:

- roles and responsibilities of USSC and Aramark,
- the proposed menu and diet compendium, and
- the degree of bulk food service required.

Elements that were removed include:

- the in-house preparation of food not readily outsourced at a reasonable cost,
- staffing based on job qualifications,
- the provision of price guarantees, and
- the provision of non-patient food services.

Each of these elements is discussed below. We describe the change and its impact on either the implementation or functionality of the initiative.

Lack of Clarity Regarding the Respective Roles and Responsibilities of USSC and Aramark

The 1996 Aramark Business Plan proposed a full service package that brought together other parties as part of Aramark's team to develop, finance and deliver shared food services. Under this proposal, Aramark would have been solely responsible and accountable to USSC for delivery of shared food services and USSC's role would centre on contract management. This structure was substantially amended. In essence, USSC assumed ownership of the assets, entered into contracts with the developer and the other service providers originally on Aramark's team, arranged financing and hired Aramark to provide "*consulting expert and management services*" regarding the implementation and delivery of food services

We were advised that the structure was amended to protect the interests of USSC in the event it wished to sever its relationship with any of its service providers. This appears to be a rational and prudent approach.

In drafting the Food Services Agreement with Aramark, the approach taken was to develop a general infrastructure and to defer determining the details of the working relationship until required by the general course of events. While this strategy was effective in helping the initiative move forward, it left unanswered several questions regarding the roles, responsibilities and accountabilities of each party.

We note that USSC and Aramark officials have agreed that the lack of specificity regarding the roles, responsibilities and accountabilities of USSC, Aramark and the facilities from the outset of implementation likely compromised the effectiveness of the implementation effort and food services in general. Officials referred to instances of uncertainty, confusion, duplication, inefficiencies and delays. During the first half of 1999, significant attempts were made by USSC and Aramark to clarify respective roles, responsibilities and accountabilities.

LESSON LEARNED

Defining and understanding the roles, responsibilities and accountabilities of all parties contributes to efficient and effective operations.

We note that legal counsel for USSC was involved in reviewing the draft agreement until mid-way through the negotiation process. The final version of the agreement, however, was different in a number of areas from the version last reviewed by USSC's legal counsel. In our view, a legal review of this document, prior to signing, would be more prudent.

Contract Devoid of Performance Measures

We noted that the Agreement with Aramark did not set specific performance measures but specified that a Quality Control Advisory Committee would be established. The main purpose of the Committee was to establish performance benchmarks for the provision of food services. However, this committee was never created by USSC. Rather, the mandate of this committee was segmented and assigned to a number of other existing committees. We note that performance benchmarks have not yet been prepared.

Amendments To The Proposed Menu And Diet Compendium

LESSON LEARNED

Involving key stakeholders in developing solutions to problems is paramount to the success of a shared services initiative.

A standard diet compendium was not fully developed and agreed upon by the nine facilities prior to USSC issuing the RFP. A diet compendium is a list of diets and their definitions. It is the initial step from which prescriptive diet menus are developed. In the absence of a regional diet compendium, the RFP included information regarding the nine facility menus, diet categories and tray availability lists. Bidders were asked to propose a solution that met the facilities diet needs. The menu designed by Aramark and reflected in their 1996 Business Plan provided for a 21-day cycle on a limited selective basis. In their proposal, to help ensure clinical requirements were appropriately addressed, Aramark also recommended that USSC create a Clinical Coordinator position to liaise with clinical dieticians in each facility. This position would report to Aramark and would coordinate and manage recommended changes to nutritional needs and programs. USSC, however, chose not to implement this recommendation.

In 1998 the Clinical Care Work Group (CCWG) was created. It comprised the clinical dieticians from each of the facilities and was chaired by Aramark. This CCWG was mandated to further develop the shared food services diet compendium. At their first meeting on January 29, 1998, a draft of the diet compendium was presented and discussed. In a subsequent memo, Aramark requested written feedback regarding any diets the dieticians did not think were necessary and of any diets which may have been missed. Clinical dieticians advised, however, that the draft compendium presented at this meeting was a very preliminary draft and that considerable development effort was still required.

LESSON LEARNED

Understanding and responding to the needs of your clients is essential to ensure changes to services are considered an improvement.

A follow-up meeting of the CCWG was held on February 17, 1998. We note that the minutes of this meeting indicated that no formal input had been received from the clinical dieticians. The clinical dieticians believed that the timeframe provided by Aramark was not sufficient to allow for the development work that was required and to coordinate and consolidate the views of nine facilities. In addition, they cited the complexities of combining acute and long-term care patient diet needs in one compendium. Dieticians indicated that their concerns regarding the diet compendium were expressed to Aramark. In turn, Aramark advised that these concerns were brought forward to the CEO. Nevertheless, clinical dieticians believed, at this point in time, that their concerns were not fully appreciated. Despite the concerns expressed by the clinical dieticians, the CEO and Aramark believed that the compendium was sufficiently developed to proceed and on March 16, 1998 advised the Board that the diet compendium had been finalized. Nonetheless, the CCWG continued their efforts to complete the development of the diet compendium. We were advised that this work was largely completed by mid-September 1998.

From February 1998 onwards, the work group met bi-weekly with Aramark and USSC and repeatedly raised concerns regarding clinical dietary needs including the diet compendium, the nutritional analysis of food purchased and the building and implementation of the CBORD database. They advised that Aramark repeatedly assured them that these matters were being taken care of. Nevertheless, certain clinical dieticians advised us that they felt largely unheard and believed that USSC and Aramark did not fully appreciate the significance and complexity of clinical dietary requirements. In our view, the clinical dieticians, Aramark and USSC missed an opportunity to work effectively together to resolve menu and diet concerns, and to balance these with cost considerations, prior to implementation. We were advised that there is typically a degree of tension between food directors who are cost oriented and clinical dieticians who are focused on the nutritional needs of their clients. In our view, shared services multiplied this inherent challenge nine times over and, therefore, necessitated special attention by both USSC and Aramark.

When the shared food service commenced, clinical dieticians at the facilities expressed significant concerns regarding the available diet types and menu selections. In an effort to accommodate facility needs, many menu items and products were changed and 37 items (27%) were added to the trayline availability list. For example, one facility included four different types of milk in its diets. To meet this facility's needs, the product list was expanded to include four different kinds of milk. An Aramark prepared variance analysis that was presented to the Board on May 17, 1999 indicated that menu changes accounted for an average increase in food costs per tray of $.43 for 1998/99 when compared to the 1998/99 budget figures (Figure 6). This represents approximately 40% ($431,000) of the food cost variance for 1998/99.

In addition, the growth in the trayline availability list significantly increased the complexity of tray preparation. As a result, the amount of time needed to prepare a tray increased. This contributed to the reduced capacity of the RDU and to the significant budget variances in labour costs per meal in 1998/99 (from $.84 per meal to $2.03) as shown in Figure 4.

On October 30, 1998, clinical dieticians expressed significant concerns to USSC, Aramark and the WRHA. These concerns included problems with the CBORD database, lack of staff support and the inadequacy of the diet compendium in use. In response, a full-time Clinical Coordinator position was created by the WRHA, in February 1999, to begin the process of addressing the concerns.

As noted above, an area of considerable concern to the clinical dieticians was the quality of the CBORD database. The entire food system is dependent on this complex database that contains detailed food ingredient listings for every product purchased as well as other critical information related to diets and clinical needs. We were advised of two factors that significantly impacted the reliability of the database. First, although both USSC and Aramark recognized the importance of the database, food service was implemented in facilities without the database being sufficiently tested to ensure that meal tickets generated by the system were appropriate for the patient. Aramark officials explained that the unexpected need to tender all food items resulted in delays in inputting food ingredients into the database. As a result, data entry was not completed until one week before the start of food service and therefore left very little time for testing. We note that the initial plan called for several weeks of testing. Secondly, we were advised that clerks rather than clinical dieticians interpreted food ingredient information and made clinical decisions which were entered into the database. We were advised that assessment and interpretation of ingredient information by qualified clinical dieticians was essential given the complexity of food composition and terminology used within the food industry. As a result of these two factors, we were advised that the database contained numerous errors when the system went live. The database errors resulted in food trays, that at times, contained inappropriate food items for the patient. In the opinion of some clinical dieticians, these errors could have compromised patient care.

As at the date of this report, significant effort was being expended to correct errors and improve the reliability of the database.

FIGURE 6

Urban Shared Services Corporation
Analysis of Food Cost Changes

Aramark 1998/99 Budget to 1998/99 Actual
(Amounts presented in this schedule were not audited by the Office of the Provincial Auditor)

	Total Food Costs	Food Cost Per Meal	% of Increase
Budgeted food cost for 1,506,000 meals	***$ 2,512,000***	***$ 1.67***	
Includes $0.09 food cost increase per meal resulting from 100% outsourcing of food items (3.6% of the $1.67). Total for 996,000 meals is $90,000.			
Less: Volume variance - Budgeted volume of 1,506,000 not realized. Actual number of meals served was 996,000	(852,000)		
Budgeted food cost for 996,000 meals	***$ 1,660,000***	***$ 1.67***	
Food cost increases from budgeted amounts			
1. Lower volumes than originally planned:			
Not realizing food cost decreases due to volume	$ 200,000	$ 0.20	18.5
Additional food cost increases not anticipated	121,000	0.12	11.1
	$ 321,000	$ 0.32	29.6
2. Changes from original budget including:			
Changes from standard meal tray including extra portions	$ 50,000	$ 0.05	4.6
Increased menu selection options (desserts, salads, soups, milks)	50,000	0.05	4.6
Increased diet mix requests	171,000	0.17	15.7
Increased use of thickened fluids	70,000	0.07	6.5
New occupational therapy items (ward stock/nourishments)	30,000	0.03	2.8
Increased use of supplements	60,000	0.06	5.6
	$ 431,000	$ 0.43	39.8
3. Deer Lodge Centre going from trayed to bulk (extra portions)	$ 150,000	$ 0.15	13.9
4. Other costs:			
Annualized budget conversion error	$ 110,000	$ 0.11	10.2
Forecasting and overproduction issues at RDU at start-up	70,000	0.07	6.5
	$ 180,000	$ 0.18	16.7
Total food cost increase	***$ 1,082,000***	***$ 1.08***	***100.0***
Total actual food cost for 996,000 meals	***$ 2,742,000***	***$ 2.75***	

Source: Aramark Financial Analysis presented to the Board on May 17, 1999 (unaudited)

More Bulk Food Service Required Than Anticipated

In December 1997 Deer Lodge Centre management determined that bulk service would be required for 50% of their patients. The 1996 Aramark Business Plan anticipated bulk service for only 8% of Deer Lodge Centre's meal requirements.

This move to bulk service allowed staff and residents more flexibility in serving portions and choices. Even though the food is the same as that served on trays, it is sent to the facility in large containers and individually portioned out on unit wards. This allows for a more home-style service where residents can have more or less of a food item depending on preferences and appetites.

In the 1996 Aramark Business Plan, bulk service accounted for 5% of meals to be served by USSC. However, the change by Deer Lodge Centre increased system-wide bulk service demand to approximately 10% of meals served.

The RDU was not designed to accommodate this volume of bulk service. The service is currently being provided from the salad preparation room, which we were advised is not large enough to allow for efficient workflows.

An Aramark prepared variance analysis that was presented to the Board on May 17, 1999 indicated that the increase in bulk service accounted for an average increase in food costs per tray of $.15 for 1998/99 when compared to the 1998/99 budget figures (Figure 6). This represents approximately 14% ($150,000) of the food cost variance for 1998/99. This increased cost occurs because of packaging, serving quantities, additional serving staff and manual time-consuming processes at the RDU.

The Decision Not To Prepare In-House Food That Is Not Readily Outsourced At A Reasonable Cost

For cost and product availability reasons, the 1996 Aramark Business Plan proposed producing approximately 20% of food requirements in-house at the Deer Lodge Centre. The Centre was to produce food not available from commercial suppliers at a reasonable cost. We note that the RDU was designed with the Deer Lodge Centre production in mind and, as a result, a kitchen was not part of the design. Early in contract negotiations, the USSC Contract Finalization Team determined that using the Deer Lodge Centre facilities was not an option and decided that all food requirements would be outsourced even though Aramark officials advised them that this would increase food costs. We were unable to determine the reason for this decision. We note, however, that the RFP identified three facilities, including Deer Lodge Centre, as having kitchen facilities that could be included in the bidders proposal.

LESSON LEARNED

There must be a will to do what is best for the overall "system".

An Aramark prepared variance analysis that was presented to the Board on May 17, 1999 indicated that this change accounted for an average increase in food costs per tray of $.09 for 1998/99 when compared to the 1998/99 budget figures (Figure 6). This represents approximately 10% of the food cost variance for 1998/99.

In our view, consideration of the issues involved in using one of the facility kitchens to supply the RDU should have been explored prior to issuing the RFP. Aramark officials advised that the requirement for 100% outsourcing contributed to the removal of cost guarantees, to higher per tray costs and to less flexibility in pursuing the lowest cost alternatives for required quality.

In addition, Aramark advised that the change to 100% outsourcing of food as opposed to producing 20% of the food at Deer Lodge Centre contributed to the facility implementation problems. Producing some of the food at Deer Lodge Centre, like mashed potatoes, oatmeal, cream of wheat, puddings, Jell-O, etc., would have provided some flexibility in the system and would have allowed USSC to better meet some of the unique food needs of patients and long-term care residents.

We note that a contract was subsequently awarded to Riverview Health Centre to supply USSC with toast and Jell-O, and to Deer Lodge Centre to supply double blanched vegetables.

Staffing Based On Seniority Rather Than Job Qualifications

LESSON LEARNED

The competency and control of human resources can have a significant impact on the efficiency of an operation. Other elements should be planned around these factors.

USSC's desired approach to dealing with the seniority rights of existing personnel and of the union status of supervisory personnel was not detailed in the RFP. Aramark understood, as reflected in the 1996 Aramark Business Plan, that facility staff would have to factor heavily into their staffing plans but assumed that staff could be placed based on the required qualifications for the position, and that supervisors would be Aramark staff. USSC Board members and the CEO were of the view, however, that given the unionized environment, Aramark should have assumed that staffing would be based on seniority.

Consistent with the terms of the union agreements, positions at the RDU were staffed based on seniority rather than required qualifications. In addition, supervisory staff maintained their union status, were employed by USSC and were also staffed based on seniority. As a result, Aramark believed that certain supervisors and staff did not, at least initially, meet the job qualification requirements. Aramark indicated that these items impacted their ability to effectively manage day-to-day operations of the RDU, contributed to their inability to offer price guarantees, and initially, reduced the capacity of the RDU.

Price Guarantees Not Included In The Food Service Agreement

A significant component of the 1996 Aramark Business Plan was the provision of price guarantees. However, during contract negotiations, USSC and Aramark were unable to agree on the specifics of how price guarantees would be formulated. As a result, the Agreement makes no reference to price guarantees. Rather, to protect their respective interests, both parties agreed to a termination clause. Section 11.1 of the Agreement states in part,

> *"Either party may, at any time after ninety (90) days from the Start Date, terminate this Agreement effective as of the end of any Aramark Accounting Period, by giving to the other party not less than one hundred and twenty (120) days written notice of intention to terminate as of the date specified in such written notice".*

In order for Aramark to be in a position to commit to price guarantees, USSC needed to commit to human resource reductions and provide a guaranteed tray volume. USSC officials advised that they did not believe the Corporation was in a position, at that time, to make such commitments. Other elements that contributed to Aramark's inability to offer price guarantees included the impact of seniority rights on the collective capability of the USSC workforce and the decision to outsource 100% of the food requirements. Each of these elements could have a significant but unpredictable impact on costs. The CEO believed that it may have been premature to seek price guarantees at the initial stage of shared food services because of the unprecedented size (scope) of the initiative and the lack of a successful model upon which to base performance benchmarks. He believed it would be more realistic to seek price guarantees in year 2 or 3 of the contract. We note, however, that the contract does not include a provision to pursue price guarantees within the term of the Agreement.

We note that USSC did not heed the advice it received from a consulting firm involved in the selection process. The consultant warned that unless all costs became fully fixed, the risk profile would be great and recommended that a contract not be signed unless all costs were fixed.

LESSON LEARNED

There should be clear agreement up-front of what services will form part of the shared services concept. All institutions should buy-in or be very clear that they are not participating in certain areas.

Provision Of Non-Patient Food Service By Aramark Made Optional

The provision of non-patient food was a significant component of the RFP and the 1996 Aramark Business Plan. Non-patient food accounted for 43% of the estimated annual cost savings generated by the shared food services initiative. However, in the Food Services Agreement, non-patient food service provided by Aramark is at the option of the facilities. We were advised that this decision was made because certain facilities disagreed with Aramark's profit and loss calculations. These calculations, which were based on standard market formulas, interviews with facility staff and review of facility data, indicated that non-patient food service at each of the facilities was being subsidized by the government. Facility CEOs, on the other hand, argued that non-patient food services generated a positive cash flow for their facility. We note, however, that several sources commented on the limited ability of most facilities to accurately allocate food service costs between patient and non-patient services.

We note that only three of nine facilities are currently using Aramark to provide this service. The other facilities continue to deliver the service in-house.

In our view, retaining components of food service is indicative of a degree of resistance by facility leadership to the overall shared food service initiative.

RDU Built To Meet Original Functional Requirements

Our review procedures indicate that the RDU was built to meet the original functional requirements as described in the 1996 Aramark Business Plan. These requirements were determined based on a survey conducted at the nine facilities and included a 21-day non-selective menu, the ability to accommodate specified staffing patterns and approximately 10,000 meals per day.

FIGURE 7

3687652 Manitoba Ltd. (Newco)

Main responsibilities included:

- design and development of the RDU and the facilities
- appointment of the project manager
- overseeing the construction and renovations of the RDU and the facilities
- providing advice to USSC on the ongoing management of the RDU
- assisting USSC, as requested by USSC, in completing the project financing
- entering into an agreement with a project manager to manage and monitor construction of the RDU and the renovations to the facilities
- submitting to USSC, on a monthly basis, progress billings prepared by the project manager
- ensuring payment is made to all subcontractors and suppliers to the RDU and the facilities
- entering into a fixed price contract with the contractor for construction of the RDU and renovations to the facilities

USSC contracted with 3687652 Manitoba Ltd. (Newco) to act as RDU and facility renovation developer. While Newco was responsible for developing the detailed RDU specifications from the functional requirements, Aramark was required to sign-off regarding the suitability of building design from a workflow perspective only. This sign-off occurred in January 1998.

However, Aramark was also required to sign-off on the suitability of equipment specifications. This sign-off has not yet occurred. Aramark officials indicated that they had no disagreement with the equipment manufacturers listed by USSC, but that they were not provided with the equipment specifications until some of the equipment was already in place. At that point, it was too late for certain changes to be processed and still ensure the commissioning of the RDU when required. Aramark officials advised that they had identified a number of concerns regarding the equipment but acknowledged that, in many cases, they would not be able to determine if there was a major deficiency at the RDU until it was up and in production. Aramark officials indicate that equipment breakdowns are frequent but note that it is difficult to determine whether these breakdowns are the result of incorrect specifications at the time of construction. We were informed that numerous problems were encountered with the dishwashing room and the tray assembly lines. These problems included equipment, design, and safety issues. The CEO indicated that, given the magnitude of the project and the lack of a similar model elsewhere, ensuring the adequacy of building and equipment specifications was something that they would need to work on based on their ongoing experiences.

Because considerable changes have been made to the vision of shared food service as expressed in the plan, the RDU has not lived up to expectations. We note that the RDU was designed, under expected conditions, to deliver approximately 10,000 meals per day. However, at full production it could only produce 6,800 meals per day while staffed at 110% of planned levels.

Several factors that impacted the capacity and capability of the RDU have already been discussed. These are:

- the increase in bulk service from 5% to 10% of meals prepared,
- the impact of substantial increases in food selections when preparing trays, and
- the impact of staff that do not meet basic qualification requirements.

In addition, RDU requirements were developed at a time when health care reform placed considerable emphasis on home based care and consequently many beds were closed. However, since building the RDU, approximately 600 beds have been added to the health care system.

In February 1999, Aramark informed the Board that production capacity was not sufficient to bring the remaining two facilities on line. As a result, in March 1999, USSC and Aramark engaged food service consultants to review the ability of the RDU to handle the projected volume of 12,000 meals per day. The consultants made a number of recommendations that were incorporated in a four-part action plan.

The action plan addresses:

- the addition of selected necessary redundant systems,
- redesign of the dishwashing room to improve efficiency, increase capacity and address safety issues, and
- replacement of current straight tray lines with three circular tray lines to improve efficiency and increase capacity.

We note that the increase in food items brought into question the suitability of the tray line design and related equipment. The consultant's report notes,

> *"Whether the equipment supplied was suited to its original purpose is debatable. Straight-line conveyors work well in European hospitals and in airline assembly units where menus are less complex. In North America, where hospitals traditionally require a wider range of diets, the circular tray line has been proven to be more efficient".*

The Board approved the four-part action plan on November 1, 1999. The total cost of the plan is estimated at $3,229,000.

On November 18, 1999 the New Democratic Party Transition Team approved the first three phases of the plan. These three phases have an estimated cost of $2,019,000 and include the redundancy and safety improvements as well as the three circular tray lines. Once completed, these improvements will increase RDU capacity to approximately 10,000 meals per day.

The fourth phase of the action plan includes increasing the floor space at the RDU in order to increase capacity by 2,000 meals per day. The fourth phase has an estimated cost of $1,210,000 but has not yet been recommended by the Working Group appointed by the Government in January 2000 to review shared food services options.

Officials believe that upon completion of this plan, USSC would be able to include the St. Boniface General Hospital and the Health Sciences Centre on the shared food service, as originally planned.

The consultant concluded that,

> *"…the problems associated with tray assembly and warewashing are…significant…. Both areas are flawed and will not perform as expected. There is no simple explanation to these problems. A combination of a lack of base information, changes in demand and, to a degree, venturing into the unknown have combined to bring about the current situation".*

The Need For A More Cautious Approach When Implementing Facilities

A key element in ensuring the successful implementation of a major project or initiative is the development and use of an appropriately detailed implementation plan. Such a plan would link resources, tasks and milestones. In addition, an effective implementation plan would consider the needs of the human resources impacted by the initiative by ensuring appropriate communication and training strategies are in place.

We noted that considerable effort was devoted toward preparing for the implementation of the shared food service. In particular, we noted that on March 1, 1995 the Board created the Operational Planning Committee (OPC). The OPC was comprised of one high level representative from each of the nine facilities and USSC's CEO. One of OPC's key tasks was to assist with the implementation process from both a system-wide and site specific basis. In our view, this was a good way of involving key people from each facility and ensuring their concerns would be heard.

FIGURE 8

OPERATIONAL PLANNING COMMITTEE

System-wide responsibilities included:

- assisting with implementation of initiatives
- determining resolution of operational issues
- reviewing action plans/monitoring progress of development of business plans
- implementation of initiatives to site specific activities

Site specific responsibilities included:

- co-ordinating resources within facilities
- providing timely responses to initiative development and implementation
- managing the operational relationship between facility and USSC
- co-ordinating implementation of system-wide Business Unit activity within their facility, including:
  - ensuring appropriate communication
  - updating facility policy/procedures to complement system-wide initiatives

We identified two concerns with the implementation process as follows:

- aggressive timelines that resulted in a very difficult implementation process, and
- the need for more communication and training at facilities.

Aggressive Timelines Resulted In A Very Difficult Implementation Process

The implementation timetable included in the 1996 Aramark Business Plan was not achievable because of delays in getting the Aramark Agreement finalized and signed. Aramark was selected as preferred bidder in December 1996. However, the Aramark Food Service Agreement was not signed by USSC until September 9, 1997; more than eight months later. The business plan assumed that an agreement could be reached by the end of February 1997.

To accommodate this delay, a shared food service project plan was prepared by Aramark and provided to the Board on January 20, 1998. By April 6, 1998, detailed system-wide plans and detailed individual facility implementation plans were prepared.

LESSON LEARNED

The desire to implement should be tempered by the need to ensure the organization is sufficiently prepared to make the transition.

However, the CEO believed that it was important to have all facilities on the system prior to the scheduled date of the first mortgage payment. To accomplish this objective, USSC insisted on shortening some critical implementation timeframes considered by many stakeholders to already be aggressive. This is discussed in more detail below. A revised trayed meal implementation timeline was prepared on May 7, 1998 and presented to the Board by the CEO on May 26, 1998. In our view, this approach generated significantly greater risk of system failure and added to the complexity of the process. While we can understand why the CEO would be motivated by the optics of this scenario and the financial implications to the system overall, we nonetheless question the wisdom of linking full implementation to the date of the initial mortgage payment. We note that St. Boniface General Hospital and Health Sciences Centre still are not on line, are making their mortgage payments and are receiving equivalent funding from the WRHA. In our view, a properly functioning RDU and an implementation schedule that allowed for learning, adjustment and monitoring to take place, should have been the priority.

Implementation occurred in two stages. Firstly to commission the RDU, and secondly to bring facilities onto the shared food system.

RDU Commissioning

Both the 1996 Aramark Business Plan and the April 1998 Aramark Implementation Planning document provided five weeks from completion of the RDU to commencement of meal delivery at the facilities. The revised implementation plan, dated May 6, 1998 shortened the timeframe to two weeks (August 27 to September 10, 1998). This reduced the time available to test the food service equipment, enter and test the data on the CBORD (as discussed earlier), and assess the readiness of facilities to commence with food delivery.

In addition, this shortened timeframe meant that the RDU needed to be commissioned before construction was completed. Most significantly, at the start of production on September 10, 1998, the RDU's dishwashing room was not complete. We were advised that during the first few months of shared food services only one of three dishwashers was operational. Because this machine could not handle the volume of dishes generated, dishes were periodically being washed by hand. In addition, because staff could not keep up as volume increased, staff took dishes from stock (earmarked for other facilities) on hand while the used dishes were being washed. The inability to wash the number of dishes required was a factor in stopping the implementation process.

Implementing Facilities Onto The Shared Food System

The April 1998 implementation plan increased the speed of implementing facilities onto the system from three facilities per month for three consecutive months, to one facility per week for nine consecutive weeks. In response, certain OPC members raised a number of concerns about the revised implementation plan with the CEO including the aggressiveness of the implementation timelines, the anticipated excessive workloads of the Patient Liaison Officers and the aggressiveness of the delivery schedule.

Aramark officials indicated that numerous discussions were held with the CEO in which they expressed their agreement with the OPC concerns. Aramark further explained that they were not in a position to say “no”. The aggressiveness of the implementation plan, in their view, resulted in a greater degree of “crisis management” than their experience indicates is typical for similar situations.

By contrast, the CEO indicated that everyone agreed the plan was aggressive but doable. In his view, Aramark officials had not done an adequate job of developing an implementation plan that ensured his desired timeframe was achieved. This view was shared by several OPC members.

The first four facilities were implemented as planned. However, we were informed that the patient liaison managers, as a group, asked their senior management (Aramark) to stop implementation after the fourth facility to give USSC an opportunity to resolve the existing problems. These concerns were summarized in a report to USSC’s CEO on October 8, 1998. This report covered the start-up of the RDU and implementation of shared food services to Concordia Hospital (September 10), Riverview Health Centre (September 17) Misericordia General Hospital (September 24), and Victoria General Hospital (October 1). The report outlined implementation activities, problems encountered and actions taken to resolve issues. Aramark acknowledged that there had been some problems and that they were beginning to compound. Problems identified included the incomplete dishwashing room, increased trayline complexities, errors in the CBORD database, power failures at the RDU, downtimes on the wide area network and CBORD, tray errors, and facility specific problems. We note, however, that the report did not recommend stopping or slowing implementation. The CEO indicated that he was not advised that the project was at risk because of these problems. Aramark officials indicated that the situation was challenging but manageable. In addition, however, they advised of considerable pressure by the CEO to proceed with the implementation.

On October 8, 1998, in accordance with the implementation plan, Deer Lodge Centre was implemented onto the shared food system. As a result, the problems at the RDU were magnified. In particular, trayline volume at the RDU increased by 44% (from 2,790 to 4,015 meals per day). RDU staff indicated that this volume overwhelmed the already stressed dishwashing function. In addition, because the RDU was not designed to accommodate the bulk volume requested by the Centre, Aramark proposed a unique food service described as “tray with a twist”. This service was, in essence, part tray and part bulk, and further complicated production, slowed down the trayline and increased errors both at the facility and the RDU. The “tray with a twist” option was changed to full bulk service shortly after it was introduced. We also note there were conflicting views regarding the Centre’s preparedness to make the transition to shared food services, and Aramark’s preparedness to take on the facility. This resulted in conflicts regarding the management of food services at the Centre.

Following implementation of services at Deer Lodge Centre, further implementation was halted so that USSC and Aramark could analyze the ongoing problems and initiate corrective action.

In our view, after the first four facilities were implemented, USSC and Aramark missed an opportunity to rethink the aggressiveness of the implementation plan before overwhelming the system. Information was available from a number of sources that suggested the effects of problems encountered would likely exceed the organization’s ability to cope if implementation continued.

Implementation began again with Seven Oaks on November 26, 1998 and Grace General Hospital on January 21, 1999. Notably, two months apart. This is more consistent with the advice provided in the 1995 PW/MW Business Plan where it was recommended that only one facility be implemented per month.

More Communication and Training Required At Facilities

For any major system to function properly, all users must be working to ensure its success. However, numerous sources advised us that many of the problems experienced to date were the result of, or were exacerbated by, the lack of buy-in by some facility staff to the shared food service concept. Examples of problems recently encountered are:

LESSON LEARNED

Encourage all activities that will contribute to increased buy-in by all levels of staff.

- Isolation ward staff discarding trays and dishes costing $125 a set, rather than utilizing the disposable tray service.
- Staff making negative comments about the food and the system to patients,
- Poor attendance by staff of certain facilities at training seminars,
- Instances of equipment damage or abuse, and
- Reluctance at some facilities to accept Aramark as facility food service managers.

These problems would indicate to us that considerably more communication and education was required before initiating services.

LESSON LEARNED

Develop an aggressive communication plan and double it.

Aramark officials advised that they developed training plans that they believed adequately considered the high impact of the initiative on dietary and food services staff at facilities and that considered the needs of different ethnic groups and cultural backgrounds. They indicated that their training program included the creation of Patient Liaison Managers to work directly with facilities on implementing the shared food service and included advance training regarding the operation of rethermalization equipment and CBORD.

In practice, however, facility staff told us that USSC and Aramark underestimated the extent of training required for facility staff to be proficient in the operation of CBORD and the rethermalization equipment. In their view, some training was provided too far in advance to be effective, and on-the-job training was limited by the lack of trainers and the aggressive implementation schedule. A support manual for CBORD was of little use to facility staff because it was a technical manual and was not user friendly. In addition, Patient Liaison Manager positions were under-resourced at only three positions for nine facilities. As a result, there was a high level of frustration at facilities, a high number of errors in ordering meals and in correctly rethermalizing food.

The Need To Strengthen The Decision-Making Infrastructure

Decision-making within a shared services environment can be a complex undertaking. The concerns of the participating facilities must be taken into account and balanced with the need to go forward with what is best for the organization as a whole. To accomplish this a mechanism must be in place to appropriately capture the perspectives, concerns and needs of participating facilities as well as other stakeholders. Effective leadership, appropriately resourced, must also be in place to build consensus, ensure consistency in approach and to ensure that decisions are in line with the shared service concept originally agreed to. The quality of decisions made is also dependent on the quality of information available to decision-makers. In this regard, decision-makers should clearly define the information that they require.

The basic model used by USSC to ensure reasoned decisions were made had three components. Firstly, a Board of Directors was created. The CEO of each of the facilities was automatically a Board member. As well, five Board members were appointed by the facility CEOs from the community at large.

Secondly, a CEO was hired to operationalize the direction provided by the Board.

Thirdly, the Board adopted a committee structure to secure the involvement of key staff within each of the facilities and as a means of resourcing the CEO.

We identified four areas of concern as follows:

- better understanding of roles and responsibilities was needed between the CEO and the Board,
- adequacy of information provided to the Board,
- limitation of the committee structure to meet resourcing needs, and
- inherent conflict in Board composition.

Our comments in the sections that follow refer to the CEO that guided the corporation through the final stages of the contract negotiations with Aramark, the construction of the RDU and the implementation of the first seven facilities (March 1997 to June 1999).

Better Understanding of Roles and Responsibilities Was Needed Between the CEO and the Board

A majority of Board members indicated that they believed the CEO's job was clearly delineated with clear lines of responsibility. They indicated that the CEO was responsible for operational decisions. In contrast, the CEO indicated that his authorities and responsibilities were not clearly defined.

LESSON LEARNED

Need to define and communicate the roles and responsibilities of the Board and the CEO.

With respect to the roles of the Board, the CEO believed that Board members were not clear on their role. From his perspective, they had a tendency to micromanage and often made operational decisions rather than set policy.

We noted that Board members had differing perspectives on their role as Board members and noted that their role in operational decision-making changes over time. The Board members from the community at large were clear on their policy setting role. However, facility Board members had differing perspectives regarding the level of operational involvement that was appropriate. Original facility Board members tended to view their roles as more operational in nature, whereas newer facility Board members saw their roles as more policy oriented.

In our view, this lack of clarity between the roles and responsibilities of the Board and the CEO may have contributed to the tensions both parties spoke of, but also illustrates that there was a clear need for more effective communication between the parties.

We note that the Board's relationship with the interim and acting CEOs was reported to be much more effective.

Concern Regarding Adequacy Of Information To The Board

While reports were provided on a regular basis by the CEO to the Board, there are mixed views as to how well the Board was informed. The CEO and the Executive Committee of the Board (EC) believe the Board was well informed. However, certain Board members were not satisfied with the quality of information provided and were concerned that the CEO worked closely with the EC to the exclusion of other Board members. With the departure of this CEO, Board members noted an improvement in the quality of information brought to the Board. We believe that it is incumbent upon the Board to be clear up front on its expectations regarding information.

LESSON LEARNED

Board members should ensure they are provided with the right information to make informed decisions. Board members should always challenge the information provided by the CEO to ensure they obtain a complete understanding.

To illustrate, at substantial completion of contract negotiation with Aramark, we found that the Board was provided with a document which, in essence, summarized the proposed differences to the latest draft agreement and key elements of the 1996 Aramark Business Plan. Previous versions of the draft agreement remained relatively faithful to the 1996 Aramark Business Plan. While the document explained why the changes were recommended, it did not discuss the impact of these changes on program functionality.

Limitation Of Committee Structure To Meet Resourcing Needs

In our discussions with Board members, most made a strong differentiation between the effectiveness of the current committee structure and what was previously in place. We were advised that the committee structure was overhauled in the summer of 1999. Improvements included the use of short-term committees mandated to address a specific issue or purpose and the clarification of the role and composition of the Executive Committee.

To assist USSC management and in an effort to contain the incremental administrative costs of operating USSC, the Board made extensive use of committees comprised of facility personnel. While this was a knowledgeable pool of people, they were limited in the time and effort they could give to USSC.

We would agree that committees are a good way to get input from a large number of stakeholders, but may lengthen the decision-making process. We note that various sources, including Aramark officials, indicated that committees were to be involved before decisions could be made. At times up to 20 different committees had a role to play in overseeing the implementation and management of the shared food services. We were advised that this process, at times, impacted the time required to implement corrective actions.

We were informed that the former CEO was not in favor of the committee structure and that shortly after his arrival marginalized the role of certain committees. For example, the Contract Finalization Team was no longer a key player in negotiations with Aramark. In addition, OPC members believed that their committee was bypassed in preparing for implementation. However, the many responsibilities directly assumed by USSC in delivering the shared food service initiative, as discussed earlier, created the need for USSC to develop an infrastructure to manage shared food services. The CEO requested a chief financial officer and an information technology specialist but these positions were not approved by the Board. We note that the Board was aware of the CEO's reluctance to work with the committees and asked that he increase his efforts to work effectively within the committee structure.

LESSON LEARNED

The CEO should be appropriately resourced.

Inherent Conflict In Board Composition

The nine facility CEOs were on this Board to represent USSC's owners, the facilities. In this role they would likely be most concerned with ensuring the best interests of USSC are served. However, as facility CEOs they are also the direct clients of the services provided by USSC. In this role they would be most interested in pursuing the best interests of their respective facilities. To ensure an effective Board is in place and that appropriate decisions are made, these two roles need to be adequately balanced. Our discussions with Board members revealed different perspectives on members' abilities to maintain this balance.

Board members from the community at large did not have this inherent conflict. As a result, we were advised that they helped focus the entire Board and helped the facility Board members maintain the required balance.

These differing perspectives suggest that a board, facing a situation in which some members may have dual roles, would be well advised to have a specific and focused discussion of the implications of this dual role. The results of these discussions should include a protocol for managing the situation so that neither the effectiveness of the board, or the performance of the organization, are impaired.

In our view, the decisions regarding non-patient food service and the contracting out of food items not readily outsourced at a reasonable cost may be indicative of the difficulties experienced by the Board members in balancing the competing interests of their two roles.

Other Matters

Cost Motivated Decisions Increased Operating Risks

Certain decisions were made in an effort to contain costs. Some stakeholders believe that the risks associated with these decisions outweighed the benefits of the cost savings. Earlier in this report we indicated that cost containment was a likely driver in the decision to speed up implementation and to limit direct staff support to the CEO. Two other specific examples were identified.

LESSON LEARNED

Ensure the benefits of any cost cutting measures outweigh the associated risks.

The 1996 Aramark Business Plan strongly recommended that the “just in time” delivery model be adopted over the “milk run” delivery model. The “just in time” model requires one truck per facility whereas, in the “milk run” model, trucks are generally shared by two facilities. They acknowledged that the “just in time” model increased annual operating costs by approximately $500,000 but believed that the simplified logistics and the mitigated risks provided sufficient justification. USSC management believed that the cost savings justified the “milk run” model.

Aramark officials indicate that, as a result, they have lost flexibility regarding their delivery schedule and in making changes to accommodate last minute facility requests. In addition, because there is limited space on the trucks, sending extra meals or equipment to a facility to meet requests is not always possible. The lack of flexibility in the delivery system is compounded by last minute diet changes from facilities. Because of the short period of time within which deliveries must be made, trucks cannot be delayed for last minute changes.

Secondly, the RDU was constructed without certain important redundancies. Such redundancies include a stand-by generator, second steam boiler, a third hot water tank and a second refrigeration unit. The current estimated cost to add these redundancies is approximately $500,000. Certain redundancies are necessary to ensure uninterrupted service, a very important consideration in the health care field. The Board indicated that the decisions regarding redundancies were made after careful consideration and analysis of the risks involved. They believed that the cost savings outweighed the additional risks incurred.

In our view, actual experiences at the RDU demonstrate the value of built-in redundancies. Aramark officials advise of many power outages over extended periods that interrupted workflows and the use of the wide-area network. They also reported numerous instances of the refrigeration unit shutting down. It was eventually rebuilt in March 1999.

Patient Satisfaction Surveys Conducted

In June of 1999 a patient satisfaction survey was conducted at each of the participating facilities by an independent consulting firm. The results of this survey were compared to the results of a June 1998 survey conducted by the same consultant. The June 1998 survey was conducted before implementation of shared food services and, therefore, serves as a baseline against which to compare the results of current surveys. The recent survey concluded that patient satisfaction had decreased slightly, but that this result was expected given the amount of public attention to the new food system.

2. WAS A FAIR PROCESS FOLLOWED IN AWARDING THE CONTRACT FOR THE RETHERMALIZATION EQUIPMENT?

What We Concluded

We concluded that a fair process was followed in awarding the rethermalization equipment contract.

What We Found

The evaluation committee was comprised of a food service director from each of the nine facilities, three USSC staff and the Aramark project manager. Because one of the facilities was already using the rethermalization equipment of one of the bidders, concern was expressed that this would bias the process. This situation was discussed by the evaluation committee who determined that the experiences of a facility in the use of the equipment was valuable input, not unlike discussing experiences with facilities in other jurisdictions. In an effort to avoid any perception of bias, the CEO from the facility with the equipment in place abstained from voting on the final bid approval. In our view, the potential for bias was also reduced because the evaluation process involved a significant number of people. Each of the nine food service directors were assisted by their support staff in evaluating the equipment. We estimate that a total of 110 people were involved.

The evaluation committee reported to the Operations Planning Committee of USSC. The OPC was comprised of senior administrators from each of the facilities and was chaired by a facility CEO.

Evaluation criteria were determined and agreed upon by the evaluation committee members before the RFP was issued. We note that no changes were made to these criteria once the RFP was issued. The criteria included nine main criteria and 152 sub-criteria. Equipment was evaluated against the predetermined evaluation criteria first by the individual committee members, and secondly by the committee as a whole.

All potential suppliers were advised of the contract opportunity at the same time.

Respondents were asked to submit financial bids in sealed envelopes. Each of these bids was mailed directly to a designate of the evaluation committee. This individual maintained control of the bids received and stored them in a secure location. Financial bids were not opened until after the equipment of both vendors was evaluated against technical evaluation criteria.

The recommendation of the committee was consistent with the results of the evaluation process.

Response from the former Board of Directors

The Provincial Auditors (PA) have done a thorough job of capturing the issues and concerns that occurred around the setup and initial operations of USSC Shared Food Services (SFS). USSC management and Board provided full cooperation and disclosure to the auditors for this report. We appreciate the opportunities we were given to review drafts and provide our insights and feedback. We would like to acknowledge the professionalism and sensitivity with which the PA handled this extensive and complex undertaking and thank them for including us in the process.

Health care is a complex field comprised of complicated relationships and intricate operational issues. This report clearly demonstrates that issues are far from straightforward in health care even for something as seemingly basic as food provision.

This report acknowledges that a health care project of this magnitude had not been attempted elsewhere. The logistics, technology, inter-facility and public/private sector cooperation requirements were ground breaking. The project required strong leadership and the full cooperation and support of all stakeholders.

Change can be very difficult to accept even at the best of times; this large a transition had enormous impact on many health care employees - from food service workers to frontline nursing staff - and the patients they cared for. As problems arose, and there were several, anxiety and frustration increased and patience with and support for the new system weakened. Misinformation and unsubstantiated rumors fuelled media interest further undermining the credibility of the system and more importantly staff, patients, residents and their families' morale. Staff bore the brunt of these difficulties and they bore them well, keeping their focus on the needs and care of their clients. We thank them for their tolerance and the support they gave their patients and residents they cared for during the difficult times as SFS was implemented.

It would be easy for us to blame the experts for not anticipating the problems or the support groups for resisting change. We want to avoid this posture and ask that we use this project and processes to understand how we should operate to bring about meaningful change to provide better services to our clients.

The original intent of SFS was to provide improved nutritional meals for residents and patients at a reduced cost; we believe we are on the right road, as rocky as it has been, to making this happen. We firmly believe that integrating health services, such as creating a centralized food system, are essential steps in providing better services and saving valuable health care dollars. These types of changes are inevitable and necessary to advancing our health care system. As we continue to make these changes we must not be set back by our mistakes. We must learn from them and apply our learning to the next important steps in improving and retaining our health care services.

UNIVERSITY OF WINNIPEG

Investment in Information Technology

Department of Education and Training

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As with most organizations, the implementation of effective information technology (IT) is playing an increasingly significant role in educational institutions. Universities have at least two major goals for IT. One is to ensure that IT supports the efficient and effective administration and research work of the institution. The other is to ensure that the IT environment supports and enhances the learning experience of the students.

Given the significant fiscal constraints facing universities today, it is essential to have an effective process in place to budget IT expenditures in relation to other priorities. However, it is also essential to ensure that the institution maximizes the benefits obtained from funds allocated to IT.

We found that the University of Winnipeg could do a better job of managing its IT activities. The primary need is for a well developed IT plan for the whole organization. While it costs time and money to develop such a plan, I believe that in the long run, the benefits of developing and implementing such a plan outweigh the costs. It is essential that the various users of IT have significant input into the development of the plan.

In the absence of a well planned approach to IT, educational organizations run undue risk of dysfunctional systems that could affect both operations and the quality of services provided to students. I am encouraged by the University's commitment to address this important need.

Jon W. Singleton, CA, CISA

Report Overview

ABOUT THE UNIVERSITY

The University of Winnipeg operates under the authority of The University of Winnipeg Act, which was proclaimed on July 1, 1998.

The University of Winnipeg provides post-secondary education through undergraduate and selected graduate programs in Arts, Science, Education, and Theology. It also offers Senior 2 through Senior 4 high school. The University has approximately 525 employees, 6,200 university students, 500 high school students, and a $60 million annual budget.

A Senate and a Board of Regents govern the University. The role of the Senate includes responsibility for the academic policy of the University. The Board of Regents generally determines all matters of administrative policy. The Board appoints a President who is the chief executive officer of the University. Reporting to the President are six functional areas. For this value-for-money audit, we focussed on the Technology Solutions Centre within the functional area of Finance and Administration.

REASON FOR THE AUDIT

All organizations that rely in whole or in part on public funding need to maximize the value obtained from every dollar spent. Expenditures on information technology are no exception. We chose to conduct a value-for-money audit on the University of Winnipeg's investment in information technology because it represents a significant annual investment and has a significant impact on University operations.

AUDIT PURPOSE, SCOPE AND APPROACH

The purpose of our audit was to answer the following three questions:

1. **ARE THE STUDENT INFORMATION AND FINANCIAL INFORMATION SYSTEMS PROVIDING USERS WITH THE INFORMATION THEY NEED?**
2. **ARE THE TECHNOLOGICAL INFRASTRUCTURE AND THE SUPPORT FUNCTION EFFECTIVELY AND EFFICIENTLY SUPPORTING INFORMATION SYSTEMS?**
3. **IS THE UNIVERSITY TAKING APPROPRIATE ACTION TO MINIMIZE THE RISK OF UNAUTHORIZED ACCESS TO ITS COMPUTER NETWORKS?**

With respect to Question 1 and the Student Information System, we limited our examination to three components. These were the Student Billing, Awards and Records Management components.

Our audit included examining available records and conducting interviews of University officials, administrative staff, and faculty. Audit procedures were performed during the period of February 1999 through August 1999.

Our examination was performed in accordance with value-for-money auditing standards recommended by the Canadian Institute of Chartered Accountants, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

IMPORTANT CONSIDERATIONS

Our research indicates that the demands on information technology departments at universities across Canada may be overwhelming. This situation results from several factors including the following:

- The transition from a mainframe based computing environment to the rapidly changing microcomputer based environment has increased the nature and demand for services needed by users.
- Today almost all faculty, administrative staff and students are users of information technology resources and services. Previously only fractions of these groups were users.
- Universities face challenges in staffing information technology positions. These challenges include fewer graduates in computer-related fields, lack of competitive salaries in the higher education environment, and increasing market demand for information technology skills.

We believe these factors have also had an impact on the University of Winnipeg. The obsolescence of its mainframe computer system in the mid-1990's created urgency around the replacement of key information systems. At the same time, the University had to make decisions regarding the purchase and development of information systems within the confines of limited annual funding. Because the University must base these decisions on what it can afford within existing cash flows, the result may be lower value-for-money in the long term.

CONCLUSIONS AND KEY FINDINGS

1. ARE THE STUDENT INFORMATION AND FINANCIAL INFORMATION SYSTEMS PROVIDING USERS WITH THE INFORMATION THEY NEED?

For the three components of the Student Information System that we examined, we concluded that these components were not adequately providing users with the information they need.

For the Financial Information System, we concluded that the system was generally providing the Controller's Office with the information it needed to maintain appropriate accounting records. However, we also concluded that the needs of users outside the Controller's Office were not fully met.

Our key findings are as follows:

Student Information System

- We observed that users of the Student Information System are experiencing difficulties in using their system efficiently and effectively. Users cited their limited ability to analyze the information accumulated by the system. This functional weakness may have resulted because of the failure to fully understand the information needs of users during the system development phase.
- We found that users have identified a significant number of requested changes. However, Technology Solutions Centre (TSC) has not been able to process these change requests in a timely manner. As a result, a significant backlog of long-outstanding change requests currently exists. Consequently, users of the Student Information System have dealt with deficiencies for long periods.

  We recognize that the significant turnover in computer programming staff, recently experienced by TSC, has negatively impacted on their ability to respond in a timely manner. However, we also believe that the backlog has grown because the implementation of change requests has not been appropriately managed. Specifically, we found that the change requests were not prioritized, nor did TSC estimate the resources required to achieve each change. We further noted that TSC did not schedule needed tasks or assign tasks to specific staff.

Financial Information System

- We found that certain users outside the Controller's Office were experiencing inefficiencies with respect to:
    - the availability of appropriate and timely information on commitments of expenditure,
    - the lack of electronic access, and
    - the extent to which the system is user friendly.

  These functional weaknesses may have resulted, in part, because of the failure to fully understand user needs during the system acquisition phase.

2. ARE THE TECHNOLOGICAL INFRASTRUCTURE AND THE SUPPORT FUNCTION EFFECTIVELY AND EFFICIENTLY SUPPORTING INFORMATION SYSTEMS?

The University does not have in place the mechanisms needed for it to assess whether the support function and the technological infrastructure are operating in an effective and efficient manner. However, the lack of performance measures, the backlog of service requests, the lack of formal technology plans, policies and procedures, and the diverse nature of the technological infrastructure, suggest that the support function and the technological infrastructure are not supporting information systems in an efficient and effective manner.

Our key findings are as follows:

- We found that while the University has identified a number of the services to be provided by TSC, certain of these services are not clearly defined. In addition, they have not defined any of the desired service levels. Service levels can be defined in a number of ways including response times, security and system functionality. Consequently, the University is unable to assess objectively the adequacy of the levels of service achieved by TSC. Understanding service levels achieved would help the University determine the adequacy of both its technological capacity and the level of human resources devoted to TSC.
- We looked at the various hardware and software components that together make up the University's technology infrastructure. We found a general lack of standardization. The University has about 1,000 microcomputers from a variety of manufacturers. These microcomputers use a variety of operating system software. In addition, faculty, administrative staff and students use over 600 different software products and versions of the same products. Among these software products we note that the University is using competing products for similar functions.

  This lack of general standardization makes it difficult for TSC to support the technological infrastructure efficiently and effectively. This difficulty is because its staff must be familiar with a host of products and product versions instead of a few standardized products.

University officials cite the high cost of information technology as an impediment to achieving reasonable standardization. We also believe, however, that this situation has occurred, in part, because the University lacks a strategic information technology plan. This is compounded by the fact that TSC is not involved in most of the decisions made by departments regarding the acquisition of information technology.

3. IS THE UNIVERSITY TAKING APPROPRIATE ACTION TO MINIMIZE THE RISK OF UNAUTHORIZED ACCESS TO ITS COMPUTER NETWORKS?

We concluded that while the University has taken measures to be aware of its security issues, it has not taken sufficient action to ensure it can continue to effectively minimize the risk of unauthorized access to its computer networks.

- We found that in the autumn of 1998, independent consultants assessed the security of the University's networks. As well, in late 1997 a general security assessment was done. Both these assessments identified multiple points of vulnerability and recommended courses of action.

  However, as at the time of our audit, the University had not taken action to resolve certain important matters identified in the assessments. One example is the need to restructure the University's networks to more securely segregate administrative and academic information systems. As a result of this lack of action, the University may be exposed to an unnecessarily high risk of unauthorized access and changes to information and information systems, as well as unauthorized disclosure of personal or confidential information.

KEY RECOMMENDATIONS

This report includes 12 recommendations. The following list outlines what we believe are the six key recommendations.

We recommend that:

- For future systems acquisition and development projects, user management formally identify and prioritize user needs. A policy requiring the identification of user needs should be included within an overall policy framework to guide the acquisition and development of information systems.
- TSC management develop and implement an action plan to deal with the backlog of changes desired to the Student and Financial Information Systems in a timely fashion.
- TSC management develop formal procedures to guide the identification and management of changes to information systems.
- Senior management define the services to be provided by TSC, and the expected service levels.
- Senior management, in consultation with TSC, develop a strategic information technology plan that over a period will result in greater standardization of the technological infrastructure.
- Senior management act promptly on the security concerns identified in security assessments.

Introduction

All organizations that rely in whole or in part on public funding need to maximize the value obtained from every dollar spent. Expenditures on information technology are no exception.

A well-managed investment in information technology that is clearly linked to organizational goals can increase an organization's ability to operate in an efficient, effective and economic manner. Within a university environment, information technology can offer critical support to staff and students for administrative functions such as tracking student records. Also, with access to the Internet, faculty members can share leading-edge information with their contemporaries and students can conduct research, thereby enhancing the overall learning environment of the university. As well, judicious use of information technology may attract academic faculty, administrative staff, and students, enabling a university to be more competitive.

We chose to conduct a value-for-money audit on the University of Winnipeg's investment in information technology largely because it represents a significant annual investment and has a significant impact on University operations.

About the University

HISTORY AND ORGANIZATION

In 1967, United College became the University of Winnipeg under *The Universities Establishment Act*. The University is currently governed under the terms of separate provincial legislation, *The University of Winnipeg Act*, which was proclaimed on July 1, 1998.

The University of Winnipeg offers several educational programs. Undergraduate and selected graduate programs are available in Arts, Science, Education, and Theology. The University's Collegiate offers Senior 2 through Senior 4 high school. As well, the Continuing Education Division provides adult education programming that includes technology, management, communications and English as a second language.

The University offers certain programs in association with other institutions. These programs include conflict resolution, environmental studies, international development, music and religious studies.

The University has approximately:

- 525 employees (academic faculty and support staff),
- 6,200 full-time and part-time University students,
- 500 Collegiate students,
- $60 million annual budget, including $28 million in grants from the Province.

A Senate and a Board of Regents govern the University. The roles of these two bodies are defined by *The University of Winnipeg Act*. The role of the Senate includes responsibility for the academic policy of the University. The Board of Regents generally determines all matters of administrative policy. The Board and Senate jointly elect a Chancellor who is the titular head of the University and who confers all degrees. In addition, the Board appoints a President. The President is the chief executive officer and vice-chancellor of the University as well as chair of the Senate.

Reporting to the President are six functional areas. For this value-for-money audit, we focussed on the Technology Solutions Centre within the functional area of Finance and Administration.

TECHNOLOGY SOLUTIONS CENTRE

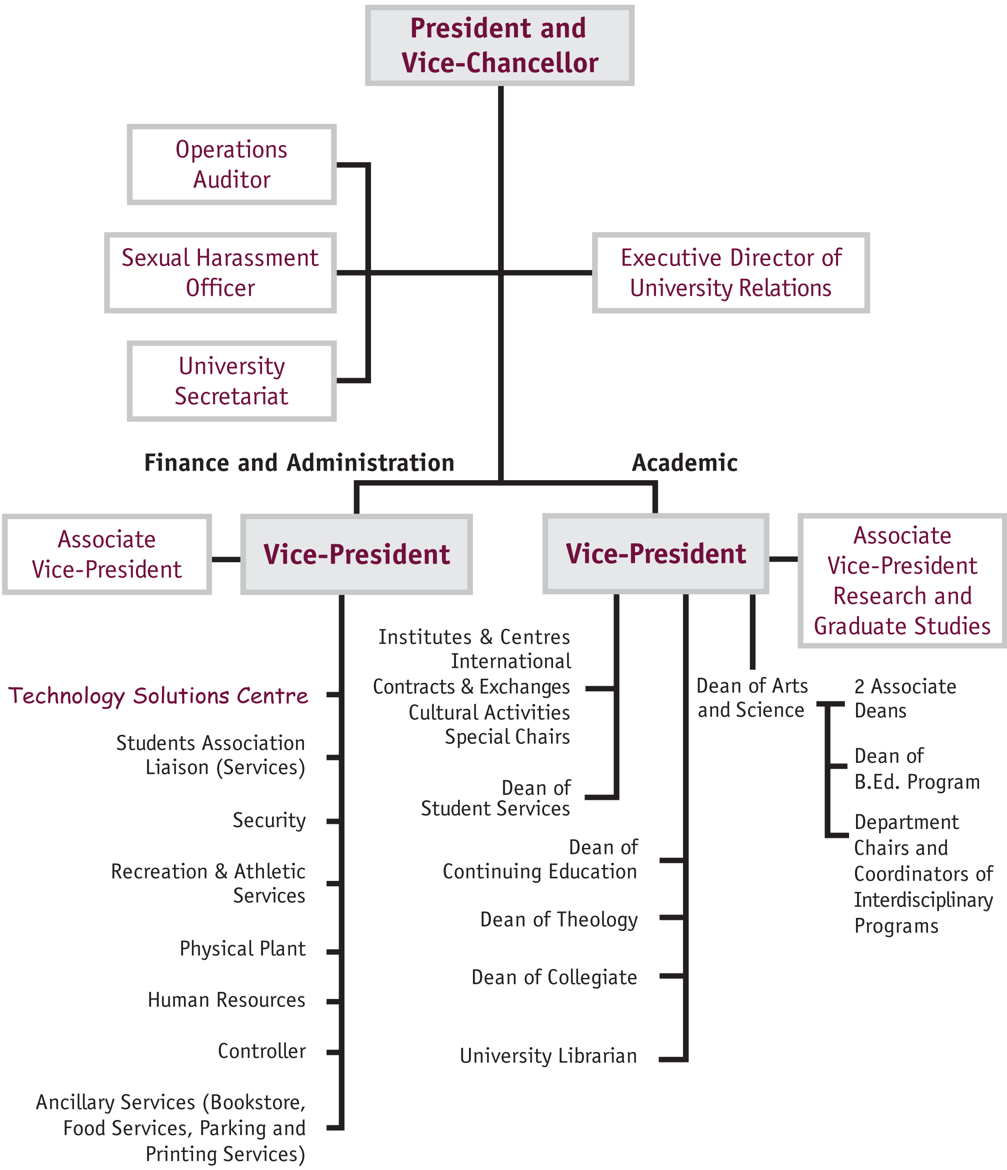
Role

Technology Solutions Centre (TSC) is the organizational unit responsible for providing the University with technical support for information systems, scientific equipment and audio-visual equipment. TSC indicates that its mandate is to

> *"...provide effective, efficient and responsive support for all electronic, electro-mechanical, network, computer and information systems in order to capitalize on the university's current and future computing and technological investments through innovative technical solutions. Specifically, this would encompass student teaching laboratories, faculty teaching and/or research support, as well as support departments including all administrative areas."*

FIGURE 1

Organization Chart As At April 2000



Organizational Structure

An Executive management committee consisting of the President and Vice-Presidents, provides direction to TSC. The Executive Director of TSC, who was appointed in the spring of 1999, reports administratively to the Vice-President of Finance and Administration.

TSC is comprised of four sections as follows:

Information Systems

Develops and manages technical aspects of University administrative information systems, supports University staff members using the systems, and manages and secures the administrative information systems.

Systems, Networks and Communications

Specifies, implements, manages and secures the University's computer networks, including access to the networks from remote locations.

Client Services

Assists University faculty, administrative staff and students regarding the use of academic and administrative information systems through a "help desk" support function and operating a laboratory of computers for students.

Desktop and Electronic Services

Installs, configures, repairs and maintains desktop computers and peripheral equipment, audio-visual equipment, and scientific laboratory equipment; calibrates the scientific laboratory equipment; designs and fabricates custom electronic equipment.

In addition, two groups have been established to assist TSC with information technology matters. The first of these groups, the *Advisory Committee on Academic Computing*, consists of representatives from TSC and academic departments who meet to address matters regarding information technology for academic purposes. The second group, the *Task Force on Student Information System*, consists of representatives from TSC and administrative departments who meet to address matters regarding administrative information systems.

An Associate Dean of the Faculty of Arts and Science, who is involved in learning technologies, chairs both groups. This chairperson reports to the Vice-President of Academic for academic computing matters and to the Vice-President of Finance and Administration for administrative systems matters.

Both groups assist TSC by receiving and prioritizing requests for information technology services from University faculty or administrative staff. Major recommendations are made to executive management, whereas minor recommendations are made directly to TSC.

Figure 2 illustrates the flow of information between TSC and its key stakeholders.

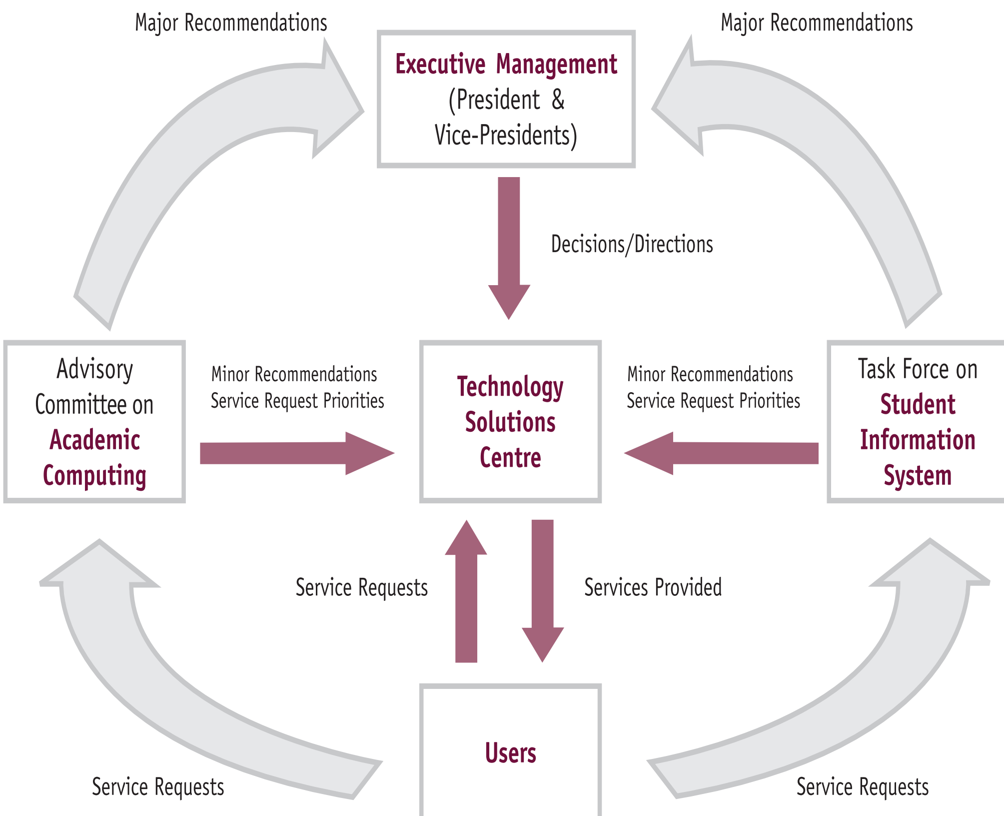
Information Systems

Information systems at the University exist within the divisions of Academic and Finance/ Administration.

Academic systems support research and educational services. These services include developing and delivering course material, providing computer software such as computer languages and statistical applications, providing access to the Internet, and dial-in access to the University networks. In addition, several classrooms are outfitted as television studios for distance education and the Centre for Learning Technologies includes graphics workstations and other resources for developing multimedia course content.

Administrative systems are comprised of four systems. The *Student Information System* consists of applications such as maintaining student histories, managing awards, and scheduling classes. The *Financial Information System* consists of accounting software and report writer software to facilitate proper financial reporting. The *General Services Information System* consists of various applications such as facility booking, key and lock management, and course evaluation processing. The *Library System* provides services that include on-line cataloguing, lending and tracking of holdings.

FIGURE 2



For this value-for-money audit, we looked at two of these systems:

- *Student Information System* – While this system has 13 components, we looked at three, specifically, the Student Billing, Awards, and Records Management components.

  In 1994 the University purchased an administrative system that comprised three applications. Only the Student Records/Admissions application was used and only after modifications by TSC. Subsequently, TSC developed new applications including Student Billing and Awards. The Student Information System became operational in June 1996.

- *Financial Information System* - We looked at the system in its entirety.

  In 1996, the University purchased a commercially available accounting software product. In addition, the purchase included report writing software to produce customized reports.

We also looked at the technological infrastructure. This infrastructure comprises the components that underlie the University information systems and that are necessary to allow the information systems to function. The infrastructure includes the computers, the computer networks, access to the Internet, remote access to the networks through telephones, and common business software, such as word processing, spreadsheet, e-mail and web browser.

As well, we looked at the security regarding access to the University's computer networks. These networks provide access to the Internet and have a large population of users who change frequently. These factors highlight the importance of controlling access to the networks.

Statistical Information

Figure 3 provides information on the level of TSC expenditures and human resources.

FIGURE 3

Technology Solutions Centre	*1997/98 Actual*	*1998/99 Budget*	*1999/00 Budget*
Salaries and staff benefits	$1,281,484	$1,614,559	$1,726,480
Other expenses	459,642	412,805	682,324
Computer hardware and software purchases	18,833	381,200	279,500
Total	***$1,759,959***	***$2,408,564***	***$2,688,304***

Staff complement	26	31	32

Audit Purpose, Scope and Approach

The purpose of our audit was to answer the following three questions:

1. **ARE THE STUDENT INFORMATION AND FINANCIAL INFORMATION SYSTEMS PROVIDING USERS WITH THE INFORMATION THEY NEED?**
2. **ARE THE TECHNOLOGICAL INFRASTRUCTURE AND THE SUPPORT FUNCTION EFFECTIVELY AND EFFICIENTLY SUPPORTING INFORMATION SYSTEMS?**
3. **IS THE UNIVERSITY TAKING APPROPRIATE ACTION TO MINIMIZE THE RISK OF UNAUTHORIZED ACCESS TO ITS COMPUTER NETWORKS?**

With respect to Question 1, for the Student Information System we limited our examination to three components. These were the Student Billing, Awards and Records Management components.

Our audit included examining available records and conducting interviews of University officials, administrative staff, and faculty. Audit procedures were performed during the period of February 1999 through August 1999.

Our examination was performed in accordance with value-for-money auditing standards recommended by the Canadian Institute of Chartered Accountants, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

Important Considerations

Our research indicates that the demands on information technology departments at universities across Canada may be overwhelming. This situation results from several factors including the following:

- The transition from a mainframe based computing environment to the rapidly changing microcomputer based environment has increased the nature and demand for services needed by users.
- Today almost all faculty, administrative staff and students are users of information technology resources and services. Previously only fractions of these groups were users.
- Universities are delivering courses over networks, including the Internet. Universities and other educational institutions are competing in the delivery of these services. Being able to offer such services requires current computer hardware and software that may be costly.
- Universities often purchase hardware and software on a piecemeal basis due to funding constraints. As a result, the systems are not standardized across the university and are, therefore, complex to support.
- Universities face challenges in staffing information technology positions. These challenges include fewer graduates in computer-related fields, lack of competitive salaries in the higher education environment, and increasing market demand for information technology skills.
- The Internet "revolution" is resulting in the proliferation of personal computing devices and people wanting self-serve access to information from anywhere at any time. Universities, like other organizations, are affected by this "revolution". The technological infrastructure of computers, networks and software has to be kept up-to-date. Information technology staff need to learn new technologies and stay competent in current ones, in order to successfully implement technological changes. Information technology departments may face demands to provide support almost twenty-four hours a day.

We believe these factors have also had an impact on the University of Winnipeg. The obsolescence of its mainframe computer system in the mid-1990s created urgency around the replacement of key information systems. At the same time, the University had to make decisions regarding the purchase and development of information systems within the confines of limited annual funding. Because the University must base these decisions on what it can afford within existing cash flows, the result may be lower value-for-money in the long term.

We kept these factors in mind when conducting our audit.

Audit Findings and Recommendations

1. ARE THE STUDENT INFORMATION AND FINANCIAL INFORMATION SYSTEMS PROVIDING USERS WITH THE INFORMATION THEY NEED?

What We Concluded

For the three components of the Student Information System that we examined, we concluded that these components are not adequately providing users with the information they need.

For the Financial Information System, we concluded that the system generally met the needs of the Controller's Office to maintain appropriate accounting records. However, we also concluded that the needs of users outside the Controller's Office were not fully met.

We reached this conclusion by examining the following criteria:

- user needs should be adequately met and should be identified and prioritized in the system selection or design process;
- user requests for changes to information systems should be managed in a timely manner;
- users should understand how to properly use the system.

To assess these criteria we examined available records. We also reviewed policy and operations manuals and conducted interviews with University officials, administrative staff and faculty.

What We Found

The Need To Identify And Prioritize User Needs During The System Selection Or Design Process

An essential element of any system development project is the detailed understanding of user needs. This is because, to be effective, an information system should be designed or selected to meet all priority needs. Developing an understanding of user needs can be accomplished by using a number of techniques including surveying and interviewing users, and assessing existing forms and databases. To ensure a common understanding is achieved, there should be a written statement describing what the information system should be able to do in order to meet those priority needs. Users, system owners, service providers, management and other stakeholders should be involved in preparing this statement and should approve the final content.

Clearly defining user needs up front helps to ensure that a system will be selected or designed with the necessary functions, will operate within acceptable parameters, and will be capable of generating required information. In summary, that the system will assist users to conduct their assigned tasks in an efficient and effective manner.

Regarding the two systems, we found the following:

Student Information System

As part of the system development phase for the Student Information System, we found that TSC made some attempts to understand user needs. However, a statement of overall requirements was not prepared. Users cited some involvement in identifying requirements for the system through discussions and attending software demonstrations. In addition, users prepared various memos that discussed some of their needs. For example, a memo from the Student Records Office listed questions and some requirements for records management. A list from the Accounting Office identified some requirements for the Student Billing System. Also, a memo from the Awards and Financial Aid department listed questions and concerns about the Student Information System.

We acknowledge that the discussions and various memos from users were valuable sources of information. However, they did not result in the thorough definition of user needs and related system requirements. In our view, clearly defining user needs was crucial, given the decision to develop rather than purchase the software.

We were informed by users of the Student Information System that they were experiencing difficulties in using their system efficiently and effectively. In part, we believe this may be because user needs had not been fully considered at the design stage. Users cited their limited ability to analyse the information accumulated by the system. For example, certain users would like information on student registrations over a number of years to better identify patterns in student enrollments.

We note that the Task Force on the Student Information System has identified numerous problems and needed changes. TSC has taken action to address some of these problems as discussed later in this report.

Financial Information System

As part of the system selection process, we found that senior staff members from the Controller's Office reviewed several commercially available accounting software products, and prepared a formal analysis that matched product specifications to identified needs and selection criteria. Before making the final selection, these staff members visited three organizations that were using the selected product.

With respect to understanding user needs, we found that the Controller's Office identified what they believed were critical system requirements to address their needs. As a result, we found that staff members within the Controller's Office were generally pleased with the Financial Information System.

However, we also found that a formal process for identifying the needs of other users was not conducted. Rather, staff members from the Controller's Office used their working knowledge of the needs of the users in other departments to identify system requirements. In our view, this process did not ensure a thorough definition of user needs and related system requirements.

We identified a number of examples where users experienced inefficiencies as a result of the system not addressing their needs. Once again these inefficiencies may, in part, have resulted because their needs had not been fully considered at the selection stage. We identified inefficiencies with respect to gathering information on commitments of expenditures, the processing of purchase requisitions, the lack of electronic access, and the extent to which the system is user friendly.

Information on Commitments of Expenditure Not Timely

Most users that we interviewed indicated that information on expenditure and commitments of expenditure is not sufficiently detailed and timely to allow them to easily track their transactions or to use the resulting reports to determine availability of funds. As a result, these users keep a separate set of records to track their expenditures and periodically reconcile this information to Financial Information System reports.

The Controller's Office indicated that the need of other users for information on commitments of expenditures was considered during the selection process but was deemed a low priority by the

University. Also, the Controller's Office indicated that while the System gathers the necessary information to indicate the availability of funds, the receipt of goods and services is not being recorded promptly enough to ensure the timely recording of the payable. As a result, the System overstates the amount of funds available. The Controller's Office was working on correcting this situation and developing a standard report to provide users with information on commitments of expenditures and remaining funds. The Controller's Office further advised that technical problems with the software have delayed the development of the report.

Duplication of Purchase Requisitions

When the Financial Information System was initially acquired, a purchase requisition module was not available. Because such a module was not purchased, certain inefficiencies have occurred. Departmental users indicated that they type purchase requisition information into a computer, print the completed requisitions and forward these requisitions to the Controller's Office. At the Controller's Office, other staff members re-key the purchase requisition information to have the accounting software generate purchase orders. The Controller's Office indicated that a purchasing module for the accounting package became available in the last year, and that they intend to purchase it.

Lack of Electronic Access

Some departmental users indicated that they do not have electronic access to the Financial Information System. As a result, they have limited ability to perform, in a timely manner, analyses of the information accumulated by the Financial Information System. These users have to wait for monthly printed reports or make periodic requests of the Controller's Office for information. The Controller's Office identified incompatible user computers as part of the cause. We discuss concerns regarding the technology infrastructure later in this report.

Financial Information System Not User Friendly

Some users commented that the system was not user friendly. They expressed dissatisfaction with matters such as cumbersome screen layouts, general ledger report layouts that are difficult to read, and slow response times for purchase order queries.

In summary, not fully considering user needs up front has resulted in users of both systems having trouble utilizing their system efficiently and effectively.

We recommend, for future systems acquisition and development projects, that user management formally identify and prioritize user needs. A policy requiring the identification of user needs should be included within an overall policy framework to guide the acquisition and development of information systems.

The Need To Identify And Manage User Requests For Changes To Information Systems In A Timely Manner

Changes to an organization's information systems are inevitable as management responds to the demands of a changing environment. Organizations must carefully manage this change process in order to ensure its information systems continue to address the needs of its users.

Organizations should log requests for changes to a system, assess these requests for needed action, prioritize the requests and monitor progress made in responding to the change requests. Once a solution has been determined, users should formally test and approve the proposed changes to the system. This would help ensure that the problem has been appropriately addressed. Dealing with change requests in a timely manner minimizes the likelihood of disruptions to users over a prolonged period of time as a result of system errors or of systems that do not address important user needs.

We found that the Task Force on the Student Information System has identified a number of requested changes. However, TSC has not been able to process these change requests in a timely manner. As a result, a significant backlog of long-outstanding change requests currently exists, as described in Figures 4 and 5.

We recognize that the significant turnover in computer programming staff, recently experienced by TSC, has negatively impacted their ability to respond in a timely manner. However, we also believe that the backlog has grown because the implementation of change requests has not been appropriately managed. We found that the change requests were not prioritized, nor did TSC estimate the resources required to achieve each change. We further noted that TSC did not schedule needed tasks or assign tasks to specific staff. We also found that when changes were made, TSC did not maintain formal records of the changes made and users did not formally test and approve these changes.

FIGURE 4

Examples of change requests for the Student Information System that were unresolved as at the date of our audit include:

- **completion of the Awards application, which is rated high priority and requested March 4, 1997**
- **development of online general receipts, which is rated high priority with a required implementation date of July 1, 1998**
- **the ability to electronically enter online fee adjustments for the Collegiate, which is rated high priority with a required implementation date of April 30, 1998**

Consequently, users of the Student Information System have dealt with deficiencies for long periods. For example, we were advised by the Awards and Financial Aid Department that the Awards component has never worked appropriately. As a result, users have compensated for errors in the reports generated by the component by repeatedly producing and examining reports on marks and academic awards.

Because the Financial Information System consists of commercial software products, the University itself cannot change the products. However, the Controller's Office advised that it is aware of changes that users want and submits requests for changes to the vendors who developed the software products. Certain of these desired changes were discussed in the previous section.

FIGURE 5

Change Requests for the Student Information System - Spring 1999

Student Billing	Records Management	Awards
22 items listed 7 items indicated as high priority with required dates in April to July 1, 1998	9 items listed List indicates normal priority for items, but required dates shown for only 3 items (June 30 to December 15, 1998)	4 items listed List indicates high priority for 2 items, but required date (September 30, 1998) shown for only 1 item. The high priority item without a required date comprises many features

We recommend that TSC and senior management develop and implement an action plan to deal with the backlog of changes desired to the Student and Financial Information Systems in a timely fashion. We further recommend that TSC management develop formal procedures to guide the identification and management of changes to information systems.

The Need to Provide Users and Administrators of the Student Information System with Manuals

Information systems within an organization will only achieve what they are designed to accomplish if users are aware of the features and know how to use them. As such, users and administrators of information systems should:

- receive training on using the system
- have access to on-the-job assistance
- have access to manuals that detail the features and requisite procedures for the system

These factors promote the proper use of applications and technology.

For both the Student Information System and the Financial Information System, users advised us that TSC provides on-the-job assistance and that users assist one another. As well, for the Financial Information System, users can obtain assistance, if needed, from the Controller's Office and from the vendors who developed the software. Furthermore, the Controller's Office advises that a formal training session is provided to new users of the Financial Information System.

Regarding user and administrator manuals, we found that such manuals are only available for the Financial Information System. In addition to the manuals provided by the vendor, the Controller's Office has developed guidance for users. For the Student Information System, some documentation on features is available on-line for users of the Awards component. We also noted that TSC started a user manual for the Student Billing component but has not updated it since January 1998.

This lack of documentation to assist users and administrators of the Student Information System places the University at risk of not being able to ensure normal operations, should it experience significant turnover. For example, new users of the Student Information System may have difficulty in becoming proficient with the system if TSC or other staff members are not in a position to assist them. University staff cited an instance where a staff member, filling a position on a temporary basis, had difficulty performing work because assistance was not readily available.

Without the guidance available in administrative manuals, system administrators may not perform proper administrative tasks. For example, there is no guidance on maintaining an up-to-date listing of authorized Student Information System users. When we requested a list of authorized users, TSC had difficulty identifying who had access to the system.

We recommend that user management develop user manuals for the essential applications or activities within the Student Information System. We further recommend that TSC management develop manuals for the technical operation of the Student Information System. Such manuals would lay the groundwork for the development of more detailed and comprehensive user and administrator manuals.

2. ARE THE TECHNOLOGICAL INFRASTRUCTURE AND THE SUPPORT FUNCTION EFFECTIVELY AND EFFICIENTLY SUPPORTING INFORMATION SYSTEMS?

What We Concluded

The **technological infrastructure** comprises the components that underlie the University information systems and that are necessary to allow the information systems to function. The infrastructure includes the computers, the computer networks, access to the Internet, remote access to the networks through telephones, and common business software, such as word processing, spreadsheet, e-mail and web browser.

The University does not have in place the mechanisms needed for it to assess whether the support function and the technological infrastructure are operating in an effective and efficient manner. However, the lack of performance measures, the backlog of service requests, the lack of formal technology plans, policies and procedures, and the diverse nature of the technological infrastructure, suggest that the support function and the technological infrastructure are not supporting information systems in an efficient and effective manner.

We base this conclusion on the following criteria:

- service levels to be provided should be defined and monitored,
- a help desk facility should be provided and its performance monitored,
- the technology infrastructure should be standardized across an organization to the extent possible,
- standards and procedures for the operation and support of the technological infrastructure should be established and documented,
- asset management records should be maintained to account for information technology components.

What We Found

The Need To Determine Service Levels Expected of TSC

The level of support that an organization can reasonably expect from an information technology support function is largely determined by the level and quality of human resources made available and the quality of hardware and software. With these factors in mind, an organization should determine the service levels expected and provide resources accordingly. Expected service levels should be published to help inform users. As well, an organization should monitor the levels of service achieved and take appropriate actions to address performance shortfalls. Defined service levels serve as performance criteria against which to measure the quantity and quality of service.

We found that while the University has identified a number of services to be provided by TSC, certain of these services are not clearly defined. In addition, they have not defined any of the desired service levels. Service levels can be defined in a number of ways including response times, security and system functionality.

The term **technological capacity** refers to the maximum workload that given computer hardware can process.

Consequently, the University is unable to assess objectively the adequacy of the levels of service achieved by TSC. Understanding service levels achieved would help the University determine the adequacy of both its technological capacity and the level of human resources devoted to TSC.

We recommend that senior management define the services to be provided by TSC, and the expected service levels. We further recommend that TSC management communicate these service levels to users. In addition, management should monitor the service levels achieved against the published service levels.

The Need To Measure The Performance Of The Help Desk Facility

Within any organization, system users will periodically require on-the-job assistance. Therefore, a help desk facility should be available to assist users. The help desk facility should record and monitor the progress of incidents. Guidelines should be established for determining the severity of problems and the most appropriate staff person to refer them to. The help desk facility should also identify outcome-oriented performance measures and track and report on its performance.

A help desk facility helps to ensure that any problem experienced by a user is appropriately resolved. Moreover, it promotes the proper use of computer hardware and software.

A **Help Desk Facility** is the function that is established to take calls from users related to information technology problems and requests for information. The help desk is a point of first contact and will provide solutions directly or pass users on to other resources who can help. The help desk should log all reported occurrences in order to establish either system maintenance requirements or additional help advice that should be available to all users.

We found that TSC provides a help desk facility. We observed that the help desk provides callers with solutions directly or passes users on to other resources that can provide help. We also found that the help desk uses call-tracking software to log problems. In addition, written instructions help staff organize calls into three distinct categories and guide the actions they take for each category. We note that target response times for each category of call have been identified.

With respect to measuring performance, TSC has developed information on the number, time of day and nature of calls received by the help desk. While this information is useful in understanding the level of activity throughout the day and the problems being experienced by users, it provides no insight on how well the help desk is responding to service requests. Information on performance in relation to specific outcome measures is needed. Examples of such measures are the results of surveys on user satisfaction, how long users wait until a call is answered, how much time until TSC begins working on the problem, and how much time to fix a problem. We note that help desk staff members are working on developing outcome-oriented performance measures and targets.

We recommend that TSC management identify, track and report outcome-oriented performance measures for its help desk.

The Need for Greater Standardization of the Technology Infrastructure Components across the University

Technology infrastructure is the backbone of an organization's information systems. While this backbone can be comprised of multiple competing products and still function, standardization across an organization, when practicable, helps to maximize cost effectiveness. Standardized technology facilitates:

- supporting the infrastructure because there are fewer software and hardware products to understand and maintain;
- sharing of information electronically between staff members, such as e-mail or word processing documents, because they use the same products;
- training, as staff members transferring between departments are less likely to have to learn new products.

We looked at the various hardware and software components that together make up the University's technology infrastructure. We found a general lack of standardization regarding desktop equipment, operating and application software, and network operating systems.

The University has about 1,000 microcomputers from a variety of manufacturers and representing a variety of generations of computer hardware. TSC management advises that this lack of a desktop standard has resulted in a PC desktop environment that integrates poorly with the rest of the computing environment.

We also found that the University's microcomputers use a variety of operating system software, and that faculty, administrative staff and students use over 600 different software products and versions of the same products. Among these software products we note that the University is using competing products for similar functions. For example, the Faculty of Arts and Science purchased word processing and e-mail software for its administrative staff that differed from that used by other administrative staff at the University. These administrative staff members may find it difficult to share information in its electronic format, because the capabilities of one software product are not necessarily supported in a competing product and information transferred from one product to another may lose some of its formatting.

We also found that various types and versions of network operating system software connect the University microcomputers. Of note is that newer software versions tend to correct the deficiencies of prior versions, including security concerns, and offer more capabilities.

This lack of standardization makes it difficult for TSC to support the technological infrastructure efficiently and effectively. This difficulty is because its staff must be familiar with a host of products and product versions instead of a few standardized products.

University officials cite the high cost of information technology as an impediment to achieving reasonable standardization. University officials estimated that it would cost $2.2 million to upgrade the network infrastructure cabling and associated network electronic equipment. In addition, University officials estimated that it would cost a further $1.4 million to upgrade the computing facilities for student laboratories, classrooms, and library public access workstations. For 1998/99, the TSC annual budget for hardware and software was less than $400,000.

We also believe, however, that this situation has occurred, in part, because the University lacks a strategic information technology plan. TSC management advised us that there is limited corporate awareness of what each department (Academic and Administration) has planned for new or updated technology and that technology planning, when it occurs, rarely involves TSC. The perspective is on implementing technology at the department or project level without adequately considering comprehensive technology solutions for the University as a whole.

Another reason for the lack of standardization is that departments are not required to involve or otherwise consult with TSC when making decisions regarding the acquisition of information technology. TSC management advised that they are usually not consulted or involved until their services are needed for implementation. Hence, consistency or compatibility of purchasing decisions is not assured. For 1998/99 departments other than TSC spent approximately $656,000 for computer hardware and software.

We recommend that senior management, in consultation with TSC, develop a strategic information technology plan that over a period will result in greater standardization of the technological infrastructure.

The Need To Establish And Document Standards and Procedures For The Operation and Support Of The Technological Infrastructure

The term **Technological Infrastructure Operations** refers to the day-to-day provision of information processing services as contracted in service level agreements or commitments.

An organization should establish formal standards and procedures for supporting the technological infrastructure. These formal standards and procedures help ensure that:

- Computer hardware and software are installed, configured and operated in accordance with organization policies.
- The effectiveness and efficiency of the technological infrastructure operations are monitored for adherence to service level agreements.

- Support functions, such as recovering from computer system "crashes", backing up data, and performing hardware maintenance, are performed in a timely and orderly fashion.

A formal process for managing the technological infrastructure helps ensure staff are aware of the important functions that should be performed regularly and how they should be performed. As such a formal process minimizes the likelihood of disruption, unauthorized alterations, and errors regarding computer hardware and software.

We found that TSC currently lacks documented procedures and standards for supporting the technological infrastructure. We acknowledge, as noted earlier, that the lack of standardized computer hardware and software significantly increases the difficulty of preparing formal standards and procedures due to the differences of the various hardware and software products.

Technological Infrastructure Support Procedures refers to the support and maintenance of technological infrastructure components that should be available to all users.

However, without formal standards and procedures, key activities may be overlooked or may not be done in an orderly fashion and there is an increased risk of disruptions in computer networks.

We also found that TSC staff members are working towards implementing software that helps manage the computer networks. Network management software products facilitate management activities such as the following:

- Installing and configuring both operating system and application software over networks.
- Monitoring network events and notifying network administrators of problems.
- Backing up and restoring information.
- Providing protection from computer viruses.

However, the diverse composition of the technological infrastructure has impeded the use of network management software.

We recommend that TSC management establish and document standards and procedures for operating and supporting the technological infrastructure.

The Need To Maintain Complete Asset Management Records

Maintaining complete records of information technology assets is a necessary component of an organization's efforts to safeguarding those assets. Asset management records should identify information technology components and associated information, such as physical location, serial and model numbers, configuration details and software licenses. These records are an important control feature because they help an organization account for all information technology components, and are essential in conducting periodic verifications of physical existence. In addition, when configuration details are noted, these records facilitate the efficient management of changes to technological infrastructure components.

The term **configuration** refers to the desired parameters and settings of the hardware and software.

We found that TSC is accounting for its information technology assets by maintaining asset listings and diagrams of computer network components.

However, these records do not list necessary information about the asset, such as, components, physical location and configuration details. In addition, the asset listing is not comprehensive as items costing less than $500 are generally not recorded. This practice is acceptable for financial reporting purposes, but is not useful for the management of information technology assets.

We recommend that TSC enhance its asset management records to capture necessary information such as components information, physical location and configuration details.

3. IS THE UNIVERSITY TAKING APPROPRIATE ACTION TO MINIMIZE THE RISK OF UNAUTHORIZED ACCESS TO ITS COMPUTER NETWORKS?

What We Concluded

We concluded that while the University has taken measures to be aware of its security issues, it has not taken sufficient action to ensure it can continue to effectively minimize the risk of unauthorized access to its computer networks.

We reached this conclusion by examining the following criterion:

- security over access to computer networks should be periodically reassessed and action taken to address security shortfalls through a defined management process

What We Found

The Need To Act On Security Concerns

Managing physical and electronic access to information, hardware and software is an essential element in safeguarding an organization's investment in information and related technology. As a result, an organization should periodically assess the effectiveness of security controls in place. The rigor of the assessments should be commensurate with the sensitivity of the information, hardware and software. Deficiencies and concerns arising from the assessments should be resolved on a timely basis. These assessments are important because they help safeguard information and information systems against damage and loss, as well as unauthorized use, disclosure and modification.

In the autumn of 1998, independent consultants assessed the security of the University's networks. As well, in late 1997 a general security assessment was done. Both these assessments identified multiple points of vulnerability and recommended courses of action.

However, as at the time of our audit, the University had not taken action to resolve certain important matters identified in the assessments. One example is the need to restructure the University networks to better secure administrative information systems.

Management of TSC is responsible for addressing security issues. TSC Management has advised us that significant other responsibilities have taken priority over addressing the security concerns identified. As a result, the University may be exposed to an unnecessarily high risk of unauthorized access and changes to information and information systems, as well as unauthorized disclosure of personal or confidential information.

We recommend that senior management act promptly to address the security concerns identified in the security assessments.

University Response

Overall, the University agrees with the findings of the audit report. The report highlights a number of weaknesses in the infrastructure and management of technology at the University. However, the positive news is that a number of improvements and successes have been implemented since the audit, with a number more currently underway or planned over the next two fiscal years. There is a strengthening commitment to continuous improvement in the three main facets of information technology at this institution – people, process and technology.

Despite gains over the past year in all three areas, there remains a significant gap between the situation of today and the position this University would have to achieve in order to attain a passing grade. Regrettably, neither the continued emphasis on people and process improvements nor the full adoption of the recommendations listed in the report will solve the tangible technology woes and recognizable limitations experienced at this University. Quite simply, our prime technology-enabling goals must be focused on students, with then an equal share of attention directed towards the technologies required to support the needs of the faculty and staff communities.

The University has the capacity and ability to turn itself around and reach satisfactory levels of service and quality to thereby yield a tangible return on IT investments. However, it seems that the University cannot do so in as expeditious a manner as the current climate within and outside of the University dictates.

1. Are the Student Information and Financial Information Systems providing users with the information they need?

We recommend, for future systems acquisition and development projects, that user management formally identify and prioritize user needs. A policy requiring the identification of user needs should be included within an overall policy framework to guide the acquisition and development of information systems.

A formal best-in-class industry standard methodology has been adopted at the University and is being applied both to future system acquisitions and major software and hardware development projects. Examples include facets of the University's Year 2000 Project and assessing the future of the Student Information System (SIS) beyond the Year 2000 Project. Full participation between the SIS Task Force and TSC ensured a balanced functional and technical recommendation was delivered.

Identifying client sponsorship, both at the executive and working levels, is a compulsory aspect of every major project now undertaken. Documentation in the form of a project recap or Project Charter is developed at the onset of the project and reviewed and approved by the client and TSC participants before proceeding into the development of the solution. Deliverables that are issued through predefined stages of the project ensure continued participation and the assurance that the right solutions are being delivered.

The ongoing development of an IT governance model will assist TSC in concentrating on those tasks and responsibilities that the community sees and requires TSC to be involved in. The clarity we expect to achieve from this will ensure that the right people are working on the right projects in the right order. Policy development in these or other IT work management areas will be a byproduct of our ability to construct a model or set of guidelines that satisfies the client's needs.

We recommend that TSC and senior management develop and implement an action plan to deal with the backlog of changes desired to the Student and Financial Information Systems in a timely fashion. We further recommend that TSC management develop formal procedures to guide the identification and management of changes to information systems.

Operational, tactical (i.e., fiscal year) and strategic (i.e., 3+ year forecasting) plans are either under development or are already being executed. These three levels of planning contain significant references to both the SIS and FIS systems. In addition, a formal Service Request/Work Order system is being utilized for software changes and better documentation of similar needs for hardware is being facilitated through the University Help Desk.

Improved work queue management and constant reference to formal documents such as the SIS Master Action List, a consolidation of all client change requests to the SIS, will ensure that each project contains the right compliment of improvements. Our goal is not to ensure there is no backlog, but rather to ensure that what is most important to the institution gets addressed based on its priority.

The adoption of formal project management methodologies and resourcing within TSC of specialized Project Manager roles will ensure those priorities get executed. Also, a rather innovative opportunity is under development with a key vendor that could increase the throughput of improvements listed in the SIS Master Action List queue.

Bottom line – there is a resource limitation (people, time and funding) within TSC that prevents all requests for service from the client community from being satisfied. Improvements are geared towards ensuring the most critical needs are addressed first. Ironically, the improved management practices are now highlighting the fact that there is a severely degraded IT situation at the University and that the situation is getting worse.

We recommend that user management develop user manuals for the essential applications or activities within the Student Information System. We further recommend that TSC management develop manuals for the technical operation of the Student Information System. Such manuals would lay the groundwork for the development of more detailed and comprehensive user and administrator manuals.

In an effort to ensure technical integrity of the systems that are being deployed today, standard documentation deliverables have been defined and are being created as a byproduct of the project-based activity that is underway. The most significant example is the documentation that was created out of the SIS Year 2000

Upgrade Project. This and additional sources of information continue to be developed, kept up to date and enhanced.

As the recommendation states, the development of many years of neglected technical documentation will lay the groundwork for user and administrator manuals. TSC intends on assigning this responsibility to the clients on a project-by-project basis. Creating documentation independent of projects is impossible from the standpoint of recognizing that there are other more urgent needs and that clients need to embrace the belief that the manuals can serve a purpose.

2. Are the technological infrastructure and the support function effectively and efficiently supporting information systems?

We recommend that senior management define the services to be provided by TSC, and the expected service levels.

We further recommend that TSC management communicate these service levels to users. In addition, management should monitor the service levels achieved against the published service levels.

IT Governance planning sessions are addressing the issue of TSC ownership and accountability. The issue is to define what services are provided across what technology products within which departments. Concurrently, there is a rather complex exercise within the Help Desk domain to better categorize and measure a number of the variables that will likely constitute the metrics needed to ensure a consistent and reliable level of service is delivered to our clients. This exercise is underway and will be completed before December 31, 2000.

As well, critical periods within the academic calendar are receiving more timely responses to problem and service requests and have resources dedicated to the immediate after hours on-call/on-site needs of those clients, e.g., registration periods.

Despite the fact that each department has different needs and expectations of TSC, a standard campus-wide service level is under construction and will be communicated via multiple means to all constituents it affects. Senior management recognizes the fact that financial support of a 7 day/24 hour service is not possible. Moreover, union regulations and policies would have to be either modified or redeveloped in order to provide consistent services outside of the regular workday.

We recommend that TSC management identify, track and report outcome-oriented performance measures for its help desk.

Weekly performance reporting from the Help Desk, identifying both internal and external service providers' statistics, is occurring. Analysis of the volume-of-calls results is used to balance trouble-shooting staff resources and to ensure as clear a queue of operational issues as possible.

Furthermore, problem and change management are now within the role and responsibility of the Help Desk Coordinator. Better overall day-to-day and tactical *planning occurs in conjunction with the Client Services Supervisor. A deeper performance-based, metrics approach to management within the Help Desk is underway.*

Plans are underway to have an upgraded asset management tool make asset information accessible to the Help Desk Analyst. This information will facilitate problem definition and resolution, thereby reducing the need for for the assignment of all or most calls to the technicians.

Additionally, Help Desk statistics will be used to highlight circumstances that may point to a client's need for training or peer-mentoring. Review meetings with Department Chairs, focused primarily on the review of technology budgets, will raise the visibility of the Help Desk, its function and service, and to communicate areas of concern or opportunity to the members of that academic or administrative department.

Aside from Help Desk statistics, operational metrics are being captured and reported monthly, in some cases to the client community, in areas such as servers and networks and applications systems. Also, plans are underway to include reporting on security breaches with the network/server performance report.

We recommend that senior management, in consultation with TSC, develop a strategic information technology plan that over a period will result in greater standardization of the technological infrastructure.

TSC is spearheading this endeavor. An IT Steering Committee consisting of the President, Vice Presidents and Chief Librarian has been formed and is the key client sponsor. Consultation with the client community is underway. The formation of an "IT Grassroots User Group" is also being considered.

In addition, starting with the 2000/2001 fiscal year, TSC will be responsible for reviewing each department's allocation of funding for IT. The funding of IT projects will take into account the ongoing operational expenses and human resource efforts needed to operate technology acquisitions. Selective outsourcing and partnering with product and service providers is being used.

Although the Strategy is under development, feedback from client communities has already shaped the operational and tactical improvements that are currently being executed and incrementally implemented. Plans are to continue the consultation and creation of the deliverable with a goal to completing, communicating and applying the full strategy as early as the end of third quarter of 2000.

Standardization, although a central theme to the IT Strategy, is only a part of the people, process and technology issues that are being addressed in the proposed plan. Technology lifecycle management (the acquisition, support of, and eventual planned retirement of technology) across the desktop and server domains is already underway. The network and application software domains are currently under review.

We recommend that TSC management establish and document standards and procedures for operating and supporting the technological infrastructure.

For the most part, this is in progress. The area of most urgent need of clarification, desktop computing, is within the final phase of review. Although the University has defacto standards within the server, network and software system/ development domains, plans are to document and communicate the standards to the entire community soon after the desktop minimum and maximum guidelines have been finalized by September 2000.

Given some of the unique characteristics and challenges of a university setting, the "common supportable desktop" initiative (or desktop standardization) is aimed at "selling" a product to our client community. The plan is to offer a more tightly integrated software offering with higher quality hardware that results in an upgradeable, reliable and supportable computing device.

The standardization across all technology domains, not just at the desktop level, will be a lengthy one. Funding is the biggest hurdle to overcome. Other marginal factors that will prevent a complete end-to-end deployment of standard tools are differing or unique client needs, personal preference in the academic community and, in some cases, an unwillingness to change. To date, the University has standardized its network printing, photocopying, scanning and faxing devices.

We recommend that TSC enhance its asset management records to capture necessary information such as components information, physical location and configuration details.

The migration of the Year 2000 asset inventory into a more robust, commercially available tool that can be integrated into existing U of W tools and systems management utilities is underway. TSC's interest is focused on technology-only assets. Discussions are planned with Purchasing and the Controller's Office regarding their asset inventory tracking requirements, but if incompatible, will not affect or hinder the achievement of a third quarter 2000 planned implementation deadline.

As complex as evaluating, selecting, implementing and then completing the collection of the inventory will be, so will the definition of procedures and eventually policies surrounding the management and maintenance of the repository. This is also under consideration within the planned period.

An opportunity to connect into vendor-assisted asset management programs is also being considered to facilitate, augment, or replace the need to manage this separately.

3. Is the University taking appropriate action to minimize the risk of unauthorized access to its computer networks?

We recommend that senior management act promptly to address the security concerns identified in the security assessments.

Aside from the general security design best-practices that should have been contained within each technology implementation of the past is the urgency now of complying with regulatory conditions such as The Freedom of Information and Protection of Privacy Act (FIPPA). Although the current environment was likely and unintentionally assembled in such a way that certain vulnerabilities became exposed in recent security specific audits, the fact remains that regulatory changes have raised the awareness and now mandated a new level of security at the University. The network is the single technology component that is wholly owned and managed by TSC. This "advantage" requires TSC to be responsible for securing the campus from internal and external risk. Significant progress in addressing this threat has occurred as follows:

- *Hiring of a full-time senior network security staff person.*
- *The University is in the inventory and assessment phase of an overall Security Strategy Project. A threat risk assessment is to be delivered in second quarter 2000 and will identify and prioritize the areas of greatest need.*
- *Funding in the 2000/2001 capital budget has been assigned to address the quick and hopefully majority of the medium size improvement subprojects.*
- *Daily auditing to ensure security breaches are detected, resolved and closed has been enhanced. Concerns and consideration for security is now imbedded in the design and implementation of each major technology initiative.*

The University of Winnipeg is a diverse institution with a formidable reputation in the liberal arts - Humanities, Social Sciences, and basic Sciences – Education, Theology, The Collegiate and Continuing Education but with the need for an increasing emphasis on technology. It recognizes that eminence in the use and application of information technology requires the University to build more effective partnerships with other like-institutions as well as with industry and government. Any and all technology implementations need to be realistic.

The IT Strategy, which is currently under development, is aimed at addressing these challenges. Likewise, it speaks to a number of the recommendations that are noted in the audit report. While the strategy has the potential to serve over its three-year projection as a guideline for technology acquisition, implementation, maintenance and renewal, it must be mindful to some root-cause problems that make up the situation at the University of Winnipeg. The Technology Solutions Centre management and staff along with its clients and partners within the campus community are committed to ensuring maximum value for each substantive investment in technology at the University.

All parties need to be aware of one obvious condition - that despite continued improvements in the people, process and technology aspects of IT at this institution, that the current level of economic support is failing in its vision of providing students, faculty and staff with an effective and standard set of tools that allows them to achieve their goals. There is an appeal to the provincial government for a special envelope of money for information technology. Given this institution's high reliance on government funding, it is essential that this appeal be ratified and added to the base funding that is received today. Full implementation of the IT Strategy will call for increased levels of expenditures, both inside and outside of TSC. The University of Winnipeg, like most (perhaps all) universities, has not yet come to grips with the real cost of information technology — both in people and equipment. We can achieve leadership by seriously addressing this problem, hopefully with cooperation from the provincial government.

The University would like to thank the Provincial Auditor's Office for committing the resources necessary to providing this institution with the audit report and recommendations that are found within it. The University looks forward to moving ahead on implementing the improvements that are fundamental to ensuring full value for the investments being made in technology.

MANITOBA CAPITAL FUND
VISION CAPITAL FUND
Due Diligence Practices

Manitoba Development Corporation

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Our reviews of the due diligence practices of the Manitoba Capital Fund and the Vision Capital Fund represents one of our early efforts to come to grips with some of the issues associated with "PPP" arrangements. "PPP" stands for "Private sector/Public sector Partnerships".

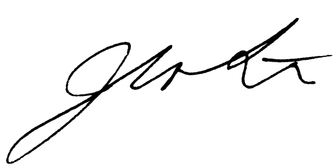
Our conclusions can be summarized as "nothing significant came to our attention that would suggest that the funds do not exercise sufficient and appropriate due diligence in evaluating investment proposals." This wording is imposed on us by CICA standards for review engagements. We came to our conclusions after much intensive effort, many interviews and research into practices of private sector investment funds. We believe our conclusions speak well of both Funds.

However, we did identify an issue with the Province's lack of initial expectations regarding documentation to be retained by the Funds. The agreements entered into by the Province with the Funds were largely silent on this point. Naturally, the Funds proceeded to use what they perceived, with their extensive industry experience, to be industry practice for the preparation and retention of interview notes and analytical working papers. This is a perfectly reasonable practice on their part. However, an outcome of this situation is that we had to limit the scope of our work to a review rather than an audit.

The general question remains though, "When elected and appointed officials put public monies at risk, should they be held to a higher standard than private citizens may set when putting their own monies at risk?" My answer to the question is "Yes!" This answer reflects my belief that elected and appointed officials hold monies collected from the citizens "in trust". The citizens do not get a direct say in how these monies are spent or invested. They must rely on elected and appointed officials to exercise care in the management of public monies. On this basis, I believe that it is incumbent on both elected and appointed officials in the public sector to take special care with monies contributed by citizens through taxes and other revenue collection programs.

A logical outcome of these thought processes is that governments should make it clear to private sector partners that there are certain requirements that they must impose to protect the public interest. In the case of the Funds, the Government could have insisted that the Funds develop documentation preparation and retention practices, with respect to interview notes and analytical working papers, that fully demonstrate the due diligence activities undertaken. Of course, where governments insist on certain requirements, private sector partners have to assess whether these requirements make their participation in the partnership uneconomic.

I believe that if governments raise the issues unique to the public sector at the outset of a PPP arrangement, the public interest will be better served.



Jon W. Singleton, CA, CISA

Report Overview on the Manitoba Capital Fund

INTRODUCTION

On January 27, 1999, the former Minister of Finance, Mr. Eric Stefanson, requested under Section 15(1) of The Provincial Auditor's Act that we undertake "a special audit of the investment made" by the Manitoba Capital Fund in 3082512 Manitoba Ltd., a holding company whose principal shareholder was Mr. Michael Shamray. The request was in response to losses incurred by the Fund as a result of the holding company declaring bankruptcy

We Conducted A Review Rather Than An Audit

We agreed to conduct an audit of the Fund's due diligence practices in evaluating its investment proposals and in monitoring its investments. Subsequently, we determined, however, that it would be impractical to conduct an audit because the Fund's documentation preparation and retention practices, with respect to interview notes and analytical working papers, did not generate an adequate paper trail of the due diligence activities undertaken. In addition, reliable alternative sources of evidence were unavailable.

We acknowledge that the Fund adopted documentation preparation and retention practices that they believed were consistent with their counterparts in the industry and that allowed them to operate within the management fees agreed to. Our discussion with the Fund's Advisory Board, which includes members from the investment community, indicated that they believed the Fund's documentation preparation and retention practices were reasonable and consistent with those of their respective organizations. In addition, the Fund's auditors indicated that, in their view, the Fund's documentation practices were reasonable and consistent with industry practices.

In order to provide the Minister with at least a moderate level of assurance on the adequacy of the Fund's due diligence practices, we conducted a review. We were able to conduct a review because of our access to Fund management and the availability of legal documents, as well as, some interview notes, analytical working papers and borrower's source documents.

ABOUT THE FUND

History and Purpose

The Manitoba Capital Fund is a limited partnership formed under the laws of the Province of Manitoba on May 6, 1996 for a seven-year term expiring May 5, 2003. This term was subsequently extended to December 31, 2003. The purpose of the Fund is to provide high yield term and subordinated debt financing to small and medium sized Manitoba based businesses and to achieve an overall rate of return commensurate with the risk assumed. The size of the loans made by the Fund are between $250,000 and $2,500,000.

The Province of Manitoba, through the Manitoba Development Corporation, is one of five limited partners in the Fund. The Manitoba Development Corporation is considered a Class B Limited Partner in the Fund whereas the other investors are Class A Limited Partners. Each partner has made identical capital contributions. Key distinctions between these classes are in relation to the distribution of quarterly net income of the Fund and the distribution of capital and net income at maturity.

Due diligence refers to the proper exercise of activities considered necessary by a reasonable, prudent and knowledge-able investor to identify and understand the significant risks associated with an investment opportunity. Knowledge of these significant risks helps ensure that the investment is structured to achieve an overall rate of return commensurate with the risk assumed.

Investment in 3082512 Manitoba Ltd.

The Manitoba Capital Fund invested, through a holding company owned by Mr. Michael Shamray (3082512 Manitoba Ltd.), in the following companies: Schmidtke Millwork (1993) Ltd., Delano Building Products Ltd., and Northstar Gaming Ltd. The Fund's total investment of $2,500,000 represents three separate loans to the holding company which were made over a period of nine months. Throughout the balance of this report this investment is referred to as "the Shamray Group".

PURPOSE, SCOPE AND APPROACH

We determined that the purpose of our review was to answer the following two questions.

1. **DOES THE MANITOBA CAPITAL FUND EXERCISE SUFFICIENT AND APPROPRIATE DUE DILIGENCE IN EVALUATING ITS INVESTMENT PROPOSALS?**
2. **DOES THE MANITOBA CAPITAL FUND EXERCISE SUFFICIENT AND APPROPRIATE DUE DILIGENCE IN MONITORING ITS INVESTMENTS?**

It is important to note that our review focussed on the adequacy of the due diligence process followed and not on the relative merits of the investments made.

Although the request from the Minister of Finance was directed toward the investment in the Shamray Group, we determined that an examination of four investments, including the Shamray Group, would better enable an assessment of the processes that the Fund typically applies in conducting its due diligence.

All investments in our sample included two or three separate loan applications. In our view, the most critical due diligence work occurs with regards to when the Fund first gets involved with the borrower. As a result, for each investment examined, we focussed on the first loan application.

We conducted our review during April to June 1999. The investments that we selected were approved during the period November 1996 to January 1999.

Our examination was conducted in accordance with the standards for assurance engagements recommended by the Canadian Institute of Chartered Accountants.

In conducting our work we examined various files, reports, agreements and other documents maintained by the Fund. As well we conducted numerous interviews with Fund officials and one interview with the Fund's Advisory Board.

IMPORTANT CONSIDERATIONS

Assessing the adequacy of due diligence is not a matter of perfunctorily applying our criteria. The degree of effort exerted by Fund management must be assessed on an investment by investment basis. Because each investment is unique, what constitutes due diligence may vary.

The judgement of what constitutes due diligence is critical to the Fund's success and must be made by experienced individuals. In this regard, we note that the Fund's management team is comprised of highly trained and experienced professionals in the financial sector. In addition, the Advisory Board is comprised of experienced financial and investment professionals from each of the Limited Partners, including the Province. They play a significant role in safeguarding the interests of their respective organizations.

It needs to be stressed that subordinated debt financing is a form of financing that ranks behind conventional secured bank debt but ahead of shareholder's equity in terms of security. Such financing is made at higher interest rates than fully secured debt to reflect the added risk involved. As with any business enterprise, there is the potential for individual investment failures. In the end, however, the success of the Fund can only be assessed by determining the overall return, at maturity, to its limited partners.

CONCLUSIONS AND KEY FINDINGS

1. DOES THE MANITOBA CAPITAL FUND EXERCISE SUFFICIENT AND APPROPRIATE DUE DILIGENCE IN EVALUATING ITS INVESTMENT PROPOSALS?

Based on the results of review procedures applied to four investments, including the investment in the Shamray Group, and in light of the circumstances surrounding each of the investments, nothing significant came to our attention that would suggest that the Fund does not exercise sufficient and appropriate due diligence in evaluating its investment proposals.

Our extensive discussions with Fund officials, and our examination of available working papers and documents, including the Credit Applications, indicate the following key findings:

A **Credit Application** is a concise written record of the results of the Fund's analyses, including associated risks and opportunities, and the proposed terms of the loan.

- Investments comply with the investment criteria described in the Limited Partnership Agreement.
- The competence of management personnel was reasonably assessed.
    - *With respect to the investment in the Shamray Group, Fund management advised that interviews were not conducted with the Vice-Presidents of Operations and Marketing. We believe it would have been useful to interview these individuals as well.*
- The financial strengths and weaknesses were reasonably assessed.
    - *With respect to the Shamray Group, searches of the various federal and provincial government offices regarding potential liabilities were only done on the holding company. However, any outstanding liabilities would have been incurred by the operating companies. As a result, we believe it would have been useful to conduct the noted searches against the operating companies.*
- The financial projections and the adequacy of cash flows were reasonably assessed.
    - *With respect to the Shamray Group, Fund management analysed the annual debt service capability for the first loan application. We noted that an analysis of the Shamray Group's debt service capability was not done for the second and third loan applications. We believe it would have been useful to conduct these analyses because the Shamray Group's debt increased substantially between both the first and second applications and between the second and third applications.*
- Available security was obtained.
    - *With respect to the Shamray Group, Fund management prepared an analysis of its security exposure on a liquidation value basis for the first loan application. We noted that an analysis of the Fund's security exposure was not done for the second and third loan applications. We believe it would have been useful to conduct these analyses because the Shamray Group's debt increased substantially between both the first and second applications and between the second and third applications.*
- Risks assessments were performed.
- The Advisory Board was generally satisfied with the quality and quantity of

information presented in the Credit Applications.

- *One Credit Application was very brief in comparison to the others we examined. This occurred because the Credit Application was submitted to the Advisory Board prior to Fund management having substantially completed their due diligence. This approach was taken in order to compress the timeframe required to act on the opportunity. In a letter to the Advisory Board, that explained why an abbreviated Credit Application was submitted, Fund management states, "the information package prepared by the Company is extremely complete and descriptive". The letter also provided the Board with assurance that they would complete their due diligence and advise them of any "unexpected information". The Board concurred with this approach and recommended that the Fund proceed with the proposed loan. We noted, as discussed earlier in this report, that in conducting the due diligence on this investment Fund management relied heavily on the work of a consultant hired by the borrower.*

2. DOES THE MANITOBA CAPITAL FUND EXERCISE SUFFICIENT AND APPROPRIATE DUE DILIGENCE IN MONITORING ITS INVESTMENTS?

Based on the results of review procedures applied to four investments, including the investment in the Shamray Group, nothing significant came to our attention that would suggest that the Fund does not exercise sufficient and appropriate due diligence in monitoring its investments.

Our extensive discussions with Fund management, and our examination of available working papers and documents, indicate that:

- Reasonable actions were taken in monitoring investments.
  - *While Fund management experienced difficulties in obtaining required information from officials for two of the four investments included in our sample, they responded to these situations in a reasonable and appropriate manner.*

Introduction

On January 27, 1999, the former Minister of Finance, Mr. Eric Stefanson, requested under Section 15(1) of The Provincial Auditor's Act that we undertake a special audit of the investment made by the Manitoba Capital Fund in 3082512 Manitoba Ltd., a holding company whose principal shareholder was Mr. Michael Shamray. The request was in response to losses incurred by the Fund as a result of the holding company declaring bankruptcy.

We agreed to conduct an audit of the Fund's due diligence practices in evaluating investment proposals and in monitoring its investments.

Due diligence refers to the proper exercise of activities considered necessary by a reasonable, prudent and knowledge-able investor to identify and understand the significant risks associated with an investment opportunity. Knowledge of these significant risks helps ensure that the investment is structured to achieve an overall rate of return commensurate with the risk assumed.

Subsequently, we determined, however, that it would be impractical to conduct an audit because the Fund's documentation preparation and retention practices, with respect to interview notes and analytical working papers, as discussed in the section of this report entitled, "Purpose, Scope and Approach", did not generate an adequate paper trail of the due diligence activities undertaken. In addition, reliable alternative sources of evidence were unavailable.

In order to provide the Minister with at least a moderate level of assurance on the adequacy of the Fund's due diligence practices, we conducted a review. We were able to conduct a review because of our access to Fund management and the availability of legal documents, as well as, some interview notes, analytical working papers and borrower's source documents.

We would like to take this opportunity to thank MCF Management Inc. and its staff for their cooperation.

About the Manitoba Capital Fund

HISTORY AND PURPOSE

Subordinated debt financing ranks behind conventional secured bank lending but ahead of shareholders' equity in terms of risk profile.

The Manitoba Capital Fund is a limited partnership formed under the laws of the Province of Manitoba on May 6, 1996 for a seven-year term expiring May 5, 2003. This term was subsequently extended to December 31, 2003. The purpose of the Fund is to provide high yield term and subordinated debt financing to small and medium sized Manitoba based businesses and to achieve an overall rate of return commensurate with the risk assumed. The size of the loans made by the Fund are between $250,000 and $2,500,000. Loans between $1,500,000 and $2,500,000 require unanimous approval of the Limited Partners. The Fund targets borrowers that meet certain investment criteria including:

- The potential for significant growth,
- Competent and experienced management with significant ownership interest in the borrower,
- Established core business with a satisfactory and sustainable cash flow, and
- An adequate collateral coverage.

THE LIMITED PARTNERS

The Province of Manitoba, through the Manitoba Development Corporation, is one of five institutional investors in the Fund. Each investor has made identical capital contributions. The Manitoba Development Corporation is considered a Class B Limited Partner in the Fund whereas the other investors are Class A Limited Partners. Key distinctions between these classes are in relation to the distribution of quarterly net income of the Fund and the distribution of capital and net income at maturity of the Fund.

QUARTERLY DISTRIBUTIONS OF NET INCOME

For each loan made by the Fund an interest rate is specified and monthly payments are required. Each loan will also have a deferred interest or participation component. Deferred interest is additional interest that is charged on a loan at a specified rate that is collected at maturity of the loan. A participation component can be set as a flat percentage of the borrower's sales throughout the term of the loan or set as a percentage of the appreciation in the value of the borrower's business over the term of the loan. The participation component is calculated and collected at maturity of the loan.

Hurdle rate return is the minimum rate of return desired by the Limited Partners in the Fund commensurate with the risk assumed and is used when calculating distributions of net income of the Fund on a quarterly basis and when calculating distribution of available funds at maturity beyond capital invested.

To the extent permitted by available funds, net income of the Fund is distributed quarterly to the Class A and Class B Limited Partners to a maximum of the "hurdle rate return" based on their capital accounts. However, quarterly distributions of net income to the Class B Limited Partner are negatively impacted by loan losses, because its capital account is adjusted for the first $5,000,000 of actual loan losses, net of recoveries, incurred by the Fund.

DISTRIBUTION AT MATURITY

With respect to the distribution of capital and net income at maturity of the Fund, the Limited Partnership Agreement specifies that available funds be distributed:

- First, to Class A Limited Partners to the extent of the capital invested.
- Secondly, to the Class B Limited Partner a payment equal to the balance in the

Class B Partner's capital account adjusted, as discussed earlier, for loan losses net of any subsequent recoveries, but, in any event, not less than $2,000,000.

- Thirdly, to the Class A Limited Partners the difference, if any, between the hurdle rate return payable during the term of the Fund and the net income previously distributed. *(At this point the Class A Limited Partners would have recovered all of their invested capital and earned the hurdle rate return.)*
- Fourthly, to the Class B Limited Partner an amount equal to the extent of capital invested but not previously distributed, as noted above, and the difference between the hurdle rate return (as paid to each Class A Limited Partner) and the net income previously distributed.
- Finally, any remaining proceeds, 80% to the Limited Partners and 20% to the Fund's manager, MCF Management Inc.

To date the Fund has incurred $4,632,658 in loan losses net of recoveries. Because the Fund has incurred loan losses the Province is likely to incur a loss on its investment in the Fund. As at July 31, 1999, Fund management estimates that the Province should recover, at maturity, a minimum of approximately $2,200,000 of its $4,363,200 investment. Details of the Province's investment in the Fund are summarized in Figure 1.

FIGURE 1

	Balances as at March 31, 1999
Committed capital by the Province	$5,000,000
Total committed capital of the Limited Partnership	$25,000,000
Percentage owned by the Province	20%
Capital Advanced by the Province	**$4,363,200**
Net Income Distributions by the Fund to the Province	**$343,628**

Source: Manitoba Capital Fund

FUND MANAGEMENT

The Limited Partners have retained MCF Management Inc., a private sector fund manager, to operate and administer the Fund and its investment portfolio. An Advisory Board, comprised of one representative from each of the five Limited Partners in the Fund, advises Fund management with respect to proposed loans, realization of assets, and distributions.

THE FUND'S INVESTMENT IN 3082512 MANITOBA LTD.

The Manitoba Capital Fund invested, through a holding company owned by Mr. Michael Shamray (3082512 Manitoba Ltd.), in the following companies: Schmidtke Millwork (1993) Ltd., Delano Building Products Ltd., and Northstar Gaming Ltd. As noted in Figure 2, the Fund's total investment of $2,500,000 represents three separate loans to the holding company over a period of nine months. Throughout the balance of this report this investment is referred to as "the Shamray Group".

FIGURE 2

Investment in 3082512 MB Ltd.					
Amount	*Interest Rate*	*Deferred Interest Rate*	*Approval Date*	*Date Funded*	*Maturity Date*
$ 1,500,000	12%	7%	February 26,1997	April 21, 1997	April 21, 2002
$ 250,000	12%	7%	June 25, 1997	July 31, 1997	April 21, 2002
$ 750,000	12%	7%	November 27, 1997	January 15, 1998	April 21, 2002

Source: Manitoba Capital Fund

THE DUE DILIGENCE PROCESS

Awareness

As early as possible, Fund management informs the Advisory Board of potential loan opportunities. A decision to discontinue further evaluation of a prospective loan can be made at this stage based on insights and knowledge brought to bear by the board members.

Evaluation

The next stage of the process is the formal evaluation of the opportunities and risks associated with the prospective loan. Fund management may discontinue the evaluation process at any time if in their opinion the opportunities or risks are inconsistent with the objectives of the Fund. These decisions are shared with the Board. Upon completion of their analysis, Fund management, for the loans they favor, prepares a written "Credit Application". The Credit Application is a concise written record of the results of the Fund's analyses, including the associated risks and opportunities, and the proposed terms of the loan. The Credit Application is approved by the Chairman, the President, and one other employee of MCF Management Inc. before it is presented to the Advisory Board.

While the Credit Application is being prepared, a commitment letter is also drafted. The letter outlines the proposed terms and conditions of the loan. It is reviewed by the borrower's management prior to the Advisory Board meeting.

Approval

A copy of the Credit Application, usually with a draft commitment letter attached, is provided to the members of the Advisory Board for their review. Fund management discusses the Credit Application at the Board meeting. Although not required, Fund management seeks unanimous agreement from the Advisory Board members as to the desirability of the proposed loan. To satisfy all Board members additional work may be required. When unanimous agreement is achieved, Fund management will complete the funding process. This involves the finalization of the Commitment Letter. The letter is provided to the prospective borrower for signing. Upon receipt of the signed letter, a copy is provided to the Fund's solicitor. The Fund's solicitor registers the security in public registries and provides the Fund with a legal opinion as to whether the security is valid, binding and enforceable. The Fund's solicitor also prepares the required debenture and other security documents. When these documents are signed, funds are forwarded to the borrower.

Monitoring

Reporting requirements and loan covenants are contained in the Commitment Letter and other security documents such as a debenture. The Fund summarizes the key monitoring requirements in a Monitoring Checklist. Regular discussions are held between the borrower and the Fund. As considered necessary, the Fund will take action to address issues of non-compliance by the borrower to its loan covenants or when operating results indicate that their investment is at risk. Periodic, formal reports are provided to the Advisory Board for their review and comments.

Purpose, Scope and Approach

PURPOSE

We determined that the purpose of our review was to answer the following two questions.

1. **DOES THE MANITOBA CAPITAL FUND EXERCISE SUFFICIENT AND APPROPRIATE DUE DILIGENCE IN EVALUATING ITS INVESTMENT PROPOSALS?**
2. **DOES THE MANITOBA CAPITAL FUND EXERCISE SUFFICIENT AND APPROPRIATE DUE DILIGENCE IN MONITORING ITS INVESTMENTS?**

It is important to note that our review focussed on the adequacy of the due diligence processes followed and not on the relative merits of the investments made.

We Conducted A Review Rather Than An Audit

In order to conduct an audit we would require evidence that demonstrated the due diligence actions taken. While oral evidence (management representations) is frequently used in value-for-money audits, such evidence is corroborated by independent alternative sources or by other types of evidence, such as documents, notes and analyses. Notes and analyses prepared by Fund management and generated as the activity occurs, are a good indicator of actions taken, the rigor of analysis performed and of the thought processes that lead to decisions. Management representations made months or years after the activity in question, while pertinent, are not, in and of themselves, sufficient evidence that an action occurred.

We found that the Fund's documentation practices, with respect to interview notes and analytical working papers, did not generate an adequate paper trail of the due diligence activities undertaken. In addition, reliable alternative sources of evidence were unavailable. As a result, it was not practical to conduct an audit. However, our access to Fund management and the availability of legal documents, as well as, some interview notes, analytical working papers and borrower's source documents, enabled us to conduct a review.

We acknowledge that the Fund adopted documentation preparation and retention practices, with respect to interview notes and analytical working papers, that they believed were consistent with their counterparts and that allowed them to operate within the management fees agreed to. Although we did not benchmark, we obtained a general understanding of the documentation practices common within their industry, by meeting with three financial institutions, two of whom deal with the type of financing issued by the Fund. These lenders were considerably larger than the Fund and consequently had very detailed policies and procedures. Regardless, we noted that the Fund's documentation preparation and retention practices, with respect to interview notes and analytical working papers, appeared to be consistent with these institutions.

Our discussion with the Advisory Board, which includes members from the investment community, indicated that they believed the Fund's documentation practices were reasonable and consistent with those of their respective organizations. In addition, the Fund's auditors indicated that, in their view, the Fund's documentation practices were reasonable and consistent with industry practices.

Fund management is of the view that the Credit Application they prepare for submission to the Advisory Board is sufficient documentation of actions taken. The Credit Application is a valuable document in that it describes the potential borrower and summarizes the risks, opportunities and terms of the investment proposal. In our view, however, the Credit Application does not summarize most of the actions taken and does not demonstrate the rigor of the analyses performed.

Overall, with regard to the four investments examined, the Fund's documentation preparation and retention practices only allowed us to conduct a review of the following areas:

- the Fund's assessment of the competence of management,
- the Fund's assessment of the financial strengths and weaknesses of the borrower,
- the Fund's evaluation of financial projections and assumptions used, and
- the Fund's assessment of the risks associated with the borrower and how these risks are mitigated.

SCOPE

Although the request from the Minister of Finance was directed toward the investment in the Shamray Group, we determined that an examination of four investments, including the Shamray Group, would better enable an assessment of the processes that the Fund typically applies in conducting its due diligence.

All investments in our sample included two or three separate loan applications. In our view, the most critical due diligence work occurs with regards to when the Fund first gets involved with the borrower. As a result, for each investment examined, we focussed on the first loan application.

We conducted our review during April to June 1999. The investments that we selected were approved during the period November 1996 to January 1999.

APPROACH

Our review was based on criteria that reflect the activities necessary to ensure due diligence in evaluating investment proposals and monitoring investments made by the Fund. The criteria were developed in consultation with the Fund's management and the Fund's auditors, Arthur Andersen LLP, Chartered Accountants.

Our examination was conducted in accordance with the standards for assurance engagements recommended by the Canadian Institute of Chartered Accountants.

In conducting our work we examined various files, reports, agreements and other documents maintained by the Fund. As well we conducted numerous interviews with Fund officials and one interview with the Fund's Advisory Board.

Important Considerations

Assessing the adequacy of due diligence is not simply a matter of perfunctorily applying our criteria. The degree of effort exerted by Fund management must be assessed on an investment by investment basis. Because each investment is unique, what constitutes due diligence may vary.

The judgement of what constitutes due diligence is critical to the Fund's success and must be made by experienced individuals. In this regard, we note that the Fund's management team is comprised of highly trained and experienced professionals in the financial sector. In addition, the Advisory Board is comprised of experienced financial or investment professionals from each of the Limited Partners, including the Province. They play a significant role in safeguarding the interests of their respective organizations.

Due diligence activities can be impacted by a number of factors. For example, certain investment opportunities may be supported by work prepared by highly qualified and respected consultants hired by the borrower. This may present an opportunity for the Fund to limit or to rethink the specific due diligence procedures required. In addition, it is important to note that many investments are funded in stages, therefore subsequent due diligence efforts benefit from the monitoring efforts of the Fund and from their ongoing liaison with the borrower.

The Fund's mandate from its partners is in essence to achieve an appropriate rate of return given the risks assumed. This means that the Fund must actively seek and then be in a position to act when, in their judgement, a good opportunity presents itself. Fund management advises that they operate in a competitive environment and need, therefore, to respond to opportunities quickly. This may impact the nature of due diligence activities carried out.

Finally, it needs to be stressed that subordinated debt financing is a form of financing that ranks behind conventional secured bank debt but ahead of shareholders' equity in terms of security. Such financing is made at higher interest rates than fully secured debt to reflect the added risk involved. As with any business enterprise, there is the potential for individual investment failures. In the end, however, the success of the Fund can only be assessed by determining the overall return, at maturity, to its limited partners.

The Province, as a Class B Limited Partner, has investment objectives that go beyond the overall rate of return. It must also, therefore, determine how well the Fund is contributing to its policy objectives. In our Study of Investment Disclosure Practices – Risk Capital Funds, which was included in our Spring 1998 Report to the Legislative Assembly, we encouraged the government to improve the nature of the planning and performance information reported to the Legislative Assembly on the third party delivered risk capital funds program. We believe that the more transparent the government can be, while respecting the need for privacy of investees, the more the government will assist the Members of the Legislative Assembly in making informed assessments on the activities of the funds within which it invests.

Review Conclusions and Observations

1. DOES THE MANITOBA CAPITAL FUND EXERCISE SUFFICIENT AND APPROPRIATE DUE DILIGENCE IN EVALUATING ITS INVESTMENT PROPOSALS?

What We Concluded

Based on the results of review procedures applied to four investments, including the investment in the Shamray Group, and in light of the circumstances surrounding each of the investments, nothing significant came to our attention that would suggest that the Fund does not exercise sufficient and appropriate due diligence in evaluating its investment proposals.

We based our conclusion on the following criteria:

- Investments should be in compliance with the investment criteria described in the Limited Partnership Agreement between the Limited Partners and the Manitoba Capital Fund dated May 6, 1996.
- The Fund should assess the competence of the borrower's management.
- The Fund should assess the financial strengths and weaknesses of the borrower.
- The Fund should assess whether the borrower's financial projections can be reasonably achieved and whether they reflect an adequate cash flow.
- The Fund should ensure that available security is obtained for the loan.
- The Fund should assess the risks associated with the borrower and how these risks are mitigated.
- The Credit Application should include sufficient information to permit informed review and advice to be made by the Advisory Board.

What We Observed

Because the request from the Minister of Finance specifically referred to the Shamray Group of companies, our findings are presented separately for this investment within each of the following sections.

Investments Comply with Investment Criteria Described in the Limited Partnership Agreement

The Limited Partnership Agreement between the Limited Partners and the Manitoba Capital Fund dated May 6, 1996 describes the investment criteria under which the Fund may make loans.

With respect to the four investments we examined, including the investment in the Shamray Group, we determined that the investments complied with the investment criteria described in the Limited Partnership Agreement.

Competence of Management Personnel Reasonably Assessed

In conducting an assessment of the competence of a borrower's management, a lender should assess whether the management team is qualified and experienced. This is generally done by performing reference checks and interviewing senior management. Assessing management's competence is important because management is crucial to the success of any business venture, particularly if the borrower is starting up, is expanding into new markets or is experiencing considerable growth.

An assessment of management's competence should result from an appropriate combination of information obtained as a result of reference checks and through interviews with management. Generally speaking, for the four investments we reviewed, Fund management's total effort to assess management's competence appeared appropriate.

We were advised that, for three of the four investments reviewed, reference checks were conducted on the President and the Senior Financial Officer of the potential borrower. Fund management typically sought information from the borrower's banker and/or business associates in the community. For the other investment, Fund management relied on the work conducted by another significant investor. The Credit Application, prepared for presentation to the Advisory Board, usually contained brief resumes of the senior management of the potential borrower.

With regard to interviews with senior management of the borrower, we were advised that, for each of the investments we reviewed, the President, Senior Financial Officer and the General Manager were interviewed. We were also advised that Fund management met with the senior management team of the borrower if warranted by the circumstances surrounding the investment. Fund management indicated that the number and extent of interviews that they would conduct with senior management was based on a number of factors. These factors would include the Fund's prior experience with the key individuals, the type of business, and the nature of the loan.

We found that certain of the reference checks and key interviews with management personnel were noted in the Fund's work files.

Investment in the Shamray Group

We were advised that Fund management conducted four reference checks on the President. We found that the results of two of these enquiries were documented in the files, and three of these enquiries were summarized in the Credit Application.

Enquiries were not made on other members of the senior management team. Fund management indicated that reference checks on the Senior Financial Officer (SFO) and on the Manager of Corporate Development (who performed the Financing function at the time for the borrower) were not considered necessary because they had had previous dealings with these individuals and were well aware of their capabilities.

Prior to the first loan being made to the Shamray Group, we found that Fund management conducted a few interviews with the President and with the Manager of Corporate Development. Fund management advised that they conducted limited interviews or discussions with the SFO and that interviews were not conducted with the Vice-Presidents of Operations and Marketing. We found that a limited number of these interviews were noted in the Fund's work files.

We noted that the Credit Application contained brief resumes of the senior management team and Fund management's assessment of the President's management style.

While the Fund's efforts in assessing management's competence were likely sufficient, we believe it would have been useful to interview the Vice-Presidents of Operations and Marketing as well.

Financial Strengths and Weaknesses Reasonably Assessed

Conducting an appropriately detailed evaluation of the financial strengths and weaknesses of a potential borrower is an essential step for a lender to undertake in assessing opportunity. Such an evaluation would include:

- an analysis of historical and interim information;
- an assessment of current financing arrangements to ensure they are not inappropriate;
- the calculation and evaluation of financial ratios and trends;
- the conduct of searches to ensure there are no claims or pending claims against the potential borrower; and
- an assessment of whether the potential borrower's insurance coverage is reasonable.

Assessing the financial strengths and weaknesses of a potential borrower is important because such an evaluation helps ensure that the lender obtains a sound understanding of the business of the potential borrower and the associated risks. In so doing, the lender can better weigh the risks of entering into the investment against the expected returns.

Analysis of Historical and Interim Information

One investment included in our sample was a business start up and as such did not have a history of operations.

For the other three investments we reviewed, Fund management conducted an analysis of the historical and interim financial information prepared by the borrowers. Summarized results of these analyses were included in the Credit Application. For one of these investments, we were able to determine that an appropriately detailed analysis had taken place. However, we found limited working papers for the other two investments and, as such, we could not assess the adequacy of the analysis performed. For example, in one of these investments, Fund management relied on the business plan prepared by a consultant hired by the borrower. The business plan presented an analysis of the historical information. Fund management advised that they met with the consultant and were satisfied with the consultant's level of expertise and with the analysis that he had prepared.

We noted that accounts receivable listings were not obtained from the borrowers for the three investments we reviewed. This would provide valuable information regarding the identification and relative significance of customers and age of the receivables. The payment history of customers and reliance on a small number of customers speaks to the risks associated with the business.

Assessment of Current Financing Arrangements

For three of the four investments we reviewed, we found that Fund management obtained copies of financing agreements in place and determined that the terms and conditions were reasonable in comparison to industry norms. Fund management advised that this included an assessment of the appropriateness of margin requirements on current assets, as well as, the reasonableness of interest rates charged.

For the other investment, as noted above, Fund management relied on the business plan prepared by a consultant hired by the borrower.

Evaluation of Financial Ratios and Trends

For three of the investments we reviewed, Fund management calculated certain ratios and presented these in the Credit Application. However, there was limited discussion and evaluation in the Credit Application or the work files regarding the significance of these financial ratios. The other investment in our sample was a business start up and, as such, did not have a history of operations.

Searches for Claims

For the investments we reviewed, the Fund's solicitor conducted searches for claims or possible claims with the various public registries, such as the Personal Property Registry of Manitoba, as well as various other federal, provincial and municipal offices.

Adequacy of Insurance Coverage

For the investments we reviewed, Fund management advised that they assessed the reasonableness of the type and level of insurance coverage maintained by the borrower. While we did not find any working papers documenting this assessment, we did find copies of pertinent insurance policies for two of the investments we reviewed.

In addition, we found that the financing agreements included covenants that required that insurance be maintained at a level consistent with the normal practice within the borrower's particular industry.

Investment in the Shamray Group

Analysis of Historical and Interim Information

We found that Fund management conducted a variance analysis on the 1994-1996 historical financial information for key balance sheet items, overall gross margin, and revenue for the three operating subsidiaries. They also analyzed the interim results as at December 31, 1996, specifically accounts receivable, revenue compared to budget, overall gross margin, and operating expenses. The results of these analyses are presented in the Credit Application. We found that limited working papers were maintained by Fund management and, as such, we could not assess the adequacy of the analyses performed.

Assessment of Current Financing Arrangements

We found that Fund management conducted assessments of existing financing arrangements. The focus of these assessments was on whether the terms and conditions were reasonable.

Evaluation of Financial Ratios and Trends

We found that Fund management calculated several financial ratios for the 1994-1996 period. However, there was limited discussion and evaluation in the Credit Application or the work files regarding the significance of these financial ratios.

Searches for Claims

The Fund's solicitor conducted searches with the Personal Property Registry of Manitoba for claims against 3082512 Manitoba Ltd. and its three operating companies. However, searches of the various federal and provincial government offices regarding potential liabilities were only done on 3082512 Manitoba Ltd., the holding company. Any outstanding liabilities would have been incurred by the operating companies. As a result, we believe it would have been useful to conduct the noted searches against the operating companies.

Adequacy of Insurance Coverage

Fund management advised that they assessed the reasonableness of the type and level of insurance coverage maintained by the borrower. This assessment was not documented in the Fund's work files. In addition, copies of pertinent insurance policies were not obtained by Fund management.

We found that the financing agreement included a covenant requiring that an appropriate level of insurance be maintained. We also found that the Fund's solicitor obtained a certificate of insurance.

Financial Projections and Adequacy of Cash Flows Reasonably Assessed

Assessing whether a borrower's financial projections can be reasonably achieved, and whether they reflect an adequate cash flow, is an integral part of evaluating an investment. This would include evaluating the assumptions used as a basis for the financial projections. This is important because financial projections assist the lender in determining whether there will be sufficient cash flow to service the increased level of debt.

Financial Projections

Fund management advised, for the investments we reviewed, that they assessed whether financial projections could be reasonably achieved. This assessment included challenging the assumptions used. In two of these investments, we found that Fund management prepared, or insisted that the borrowers prepare, amended projections to reflect what they believed were more plausible figures. For the other two investments, Fund management relied on the work of third parties. Specifically, reliance was placed on projections prepared by the borrower's consultant and on the work of another significant investor. Fund management's reliance was made possible by their recalculations, enquiries and research.

Fund management also informed us that most analyses and notes of discussion with borrowers and other significant parties were not retained.

Debt Service Capability

For three of the four investments we reviewed, Fund management adequately assessed the debt service capability.

For the other investment, Fund management relied on the business plan prepared by a consultant hired by the borrower. The business plan included detailed cash flow projections for three years forward as well as a schedule of term debt commitments for the same period. Fund management advised that they analyzed the business plan and had discussions with the borrower's management and the consultant. Fund management also informed us that they did not retain their working papers supporting this analysis.

Investment in the Shamray Group

Financial Projections

Fund management believed that the five-year financial projections received from the Shamray Group were too optimistic. As a result, Fund management prepared a five-year income projection using the Shamray Group's budget for 1997 as the baseline. Fund management advised that they verbally challenged the borrower on the 1997 budget and that they performed a sensitivity analysis on the financial projections assuming different levels of revenue growth.

Summarized results of this assessment were included in the Credit Application. Fund management advised that analyses, notes of discussion with the borrower and most source documents were not retained.

Debt Service Capability

Fund management analyzed the annual debt service capability of the Shamray Group. This was done by first calculating a five-year projection of the principal and interest payments on the existing debt and on the proposed new debt. The estimated annual debt service cost was then compared to the estimated annual net cash flow from the five-year income projection.

Although our review focused on the first loan application, we noted that an analysis of the Shamray Group's debt service capability was not done for the second and third loan applications. We believe it would have been useful to conduct these analyses because the Shamray Group's debt increased substantially between both the first and second applications and between the second and third applications.

Available Security was Obtained

To protect their financial interest, lenders should ensure that available security is obtained. In determining its security position, a lender should, prior to forwarding any funds:

Liquidation basis assumes that the operations of the company will cease and that the individual assets will be sold.

- assess its security position in relation to other existing lenders,
- analyze its security exposure on a liquidation basis,
- register its security documents, and
- obtain a written legal opinion as to the enforceability of these documents.

We found that, for the investments we reviewed, Fund management assessed the Fund's security position by obtaining detailed listings of prior security registrations.

We also found that Fund management determined its security exposure by estimating asset values on a liquidation basis. Fund management applied existing liens, as well as its own, against the estimated asset values. Shortfalls in asset values reflect the security exposure and are a factor in determining the risk profile of the loan.

We found that for all investments reviewed, the Fund's solicitor registered the security documents in the Personal Property Registry of the Province and provided Fund management with a written opinion of the enforceability of the documents. This was always done prior to advancing any money.

We also noted that Fund management required that the Fund be named as a beneficiary in each property insurance policy maintained by the borrowers and then ensured that insurance coverage was maintained through their follow up procedures.

Investment in the Shamray Group

Fund management assessed the Fund's security position by obtaining a detailed listing of prior security registrations. The Credit Application described how the Fund's security position would rank in comparison to the security of the existing lenders.

Fund management prepared an analysis of its security exposure on a liquidation value basis. Although our review focused on the first loan application, we noted that an analysis of the

Fund's security exposure was not done for the second and third loan applications. We believe it would have been useful to conduct these analyses because the Shamray Group's debt increased substantially between both the first and second applications and between the second and third applications.

We found that for all three loans, the Fund's solicitor registered the security documents in the Personal Property Registry of the Province and provided Fund management with a written opinion of the enforceability of the documents. This occurred prior to funding each of the loans.

In addition, we note that the Fund was listed as a beneficiary in the property insurance policies.

Risk Assessment Performed

In assessing an investment opportunity, a lender should assess the risks associated with the borrower's business venture and how these risks are being managed or mitigated.

With respect to a risk assessment process, Fund management advises that they rely on their collective experiences, and on that of the Advisory Board, in identifying and assessing the risks associated with investment proposals. Formal checklists are not utilized to guide the process.

Further, Fund management advised that discussions at Board meetings typically focus on the riskiest elements of the proposed investment.

In addition, we found that for each of the investments we reviewed, Fund management prepared a "risk profile" as part of the Credit Application. Risk profiles are a numerical assessment of the level of risk using six risk categories. Risk profiles contribute to effective portfolio management by providing Fund management and the Advisory Board with information on the relative levels of risk for each of its investments. The Advisory Board indicated that risk profiles are discussed at the Advisory Board meetings and that they consider them a useful tool.

Given the background of Fund management and the Advisory Board, we believe the risk assessment process followed by the Fund is appropriate.

Documenting risk assessments is generally limited to risk profiles and the discussion of key risks in the Credit Application.

Investment in the Shamray Group

Our discussions with Fund management indicated that they had considered the impact of several risks associated with this investment. In Fund management's view, the key risks were reflected in the Credit Application. The Credit Application identified three major risk categories. However, for one of the major risk categories Fund management did not address how the risk could be mitigated or the reason for it not needing to be mitigated. In addition, in our view, two other significant risks that were known to Fund management were not described in the Credit Application along with any mitigation actions taken by the borrower.

Advisory Board Generally Satisfied with the Quality and Quantity of Information Presented in the Credit Applications

Information that concisely and accurately describes the risks and opportunities of an investment proposal should be summarized in a document. Such a document facilitates discussion with key players.

Fund management describes the potential borrower and summarizes the risks, opportunities and terms of an investment proposal in their "Credit Application."

The Advisory Board indicated that they were generally satisfied with the quality and quantity of information presented in the Credit Applications. The Board stressed that the information they receive is not limited to the Credit Application but is supplemented by considerable discussions with Fund Management at their Board meetings.

We examined the Credit Applications for the four investments included in our sample. We concluded that sufficient information was generally provided in three of these Credit Applications. One Credit Application was very brief in comparison to the others we examined. This occurred because the Credit Application was submitted to the Advisory Board prior to Fund management having substantially completed their due diligence. This approach was taken in order to compress the timeframe required to act on the opportunity. In a letter to the Advisory Board, that explained why an abbreviated Credit Application was submitted, Fund management states, "the information package prepared by the Company is extremely complete and descriptive". The letter also provided the Board with assurance that they would complete their due diligence and advise them of any "unexpected information". The Board concurred with this approach and recommended that the Fund proceed with the proposed loan. We noted, as discussed earlier in this report, that in conducting the due diligence on this investment Fund management relied heavily on the work of a consultant hired by the borrower.

> *Investment in the Shamray Group*
>
> The Credit Application provided sufficient information upon which to base informed review and advice.

2. DOES THE MANITOBA CAPITAL FUND EXERCISE SUFFICIENT AND APPROPRIATE DUE DILIGENCE IN MONITORING ITS INVESTMENTS?

What We Concluded

Based on the results of review procedures applied to four investments, including the investment in the Shamray Group, nothing significant came to our attention that would suggest that the Fund does not exercise sufficient and appropriate due diligence in monitoring its investments.

We based our conclusion on the following criteria:

- To effectively monitor its investments, a lender should ensure that required information is specified in the financing agreement and subsequently obtained.
- The lender should take action when information is not received or when results are not in line with expectations.

What We Observed

Reasonable Actions Taken in Monitoring Investments

The financing agreements, for each of the four investments we reviewed, appropriately reflected the information requirements of the Fund. This was generally limited to specific financial information and the required frequency.

We also found that Fund management used a monitoring checklist tailored for the specific needs of each investment. Normally the checklist noted the required financial reports, key financial covenants, changes to senior management and increased debt levels.

For two of the investments we reviewed, Fund management was experiencing certain difficulties in obtaining required information or in ensuring key covenants were complied with. We found that Fund management responded to these situations in a reasonable and appropriate manner. For example, for one investment Fund management obtained observer status at the borrower's Board meetings.

In addition, for the investments we reviewed, we found that Account Review Reports, which briefly discussed the status of each investment, were presented to the Advisory Board on a regular basis.

Investment in the Shamray Group

We found that Fund management used a monitoring checklist tailored for the specific needs of this investment. The checklist noted the required financial reports, key financial covenants, changes to senior management and increased debt levels.

Although the Shamray Group repeatedly failed to comply with the reporting requirements of their financing agreement, as discussed below, Fund management did not believe it was necessary to take intrusive actions. Fund management advised that throughout the investment period they were in frequent contact with the borrower and were satisfied with the operating results that were presented. As a result, they did not believe that more intrusive measures were needed. Fund management's judgement, given what was known at the time, appears reasonable.

We noted that while the Fund received most of the required monthly financial statements, these statements were frequently received after the 45 day required timeframe. We also observed that the required monthly aged accounts receivable listings were frequently not received. However, in February 1998 the Fund changed its monthly requirements for financial information, including accounts receivable listings, to quarterly. Fund management advised that this was done to be consistent with the requirements of the borrower's operating bank. We note, however, that two of the quarterly accounts receivable listings were also not received.

We also noted that one of the quarterly financial statements and two of the monthly financial statements were presented on a combined rather than a consolidated basis. This had the effect of overstating sales. In addition, the two monthly financial statements included the results of other related companies. This also had the effect of overstating net income.

Fund Management Response

We are generally pleased with the findings of the report. It confirms our view that the Fund Manager meets or exceeds industry standards at all times in the performance of its due diligence process. The principal objective of the Fund is to earn a profit for its investors, commensurate with the risk assumed; as such the Manager is limited by available resources and the competitive process. The approach of the Manager is directed by the Limited Partnership Agreement and Management Agreement, subject to the review and concurrence of the Fund Investment Advisory Board.

Report Overview on the Vision Capital Fund

INTRODUCTION

Vision Capital Fund had a significant investment in 3082512 Manitoba Ltd., a holding company whose principal shareholder was Mr. Michael Shamray. When this holding company declared bankruptcy in October 1998, we determined that an examination of the Fund's due diligence practices in evaluating its investment proposals and in monitoring its investments would be in the public interest. On October 28, 1998 we met with Vision Capital Fund management to discuss the nature of our intended examination. Upon discussion with Fund management and their auditors, Deloitte & Touche, Chartered Accountants, we were advised that the due diligence procedures and practices in the venture capital industry are not sufficiently standarized to ensure documentation is prepared that would enable an audit to be effectively conducted on the due diligence activities undertaken. While Fund management believed that they exceeded industry documentation practices with respect to interview notes and analytical working papers, they advised that a full paper trail of activities undertaken is not generated. Our enquiries with three financial institutions indicated that the Fund's documentation practices, with respect to interview notes and analytical working papers, appeared to be consistent with these institutions. Our initial review of the Fund's files confirmed that the paper trail of activities undertaken was not adequate to allow us to effectively conduct an audit.

Due Diligence refers to the proper exercise of activities considered necessary by a reasonable, prudent and knowledgeable investor to identify and understand the significant risks associated with an investment opportunity. Knowledge of these significant risks helps ensure that the investment is structured to achieve an overall rate of return commensurate with the risk assumed.

However, on January 27, 1999, the former Minister of Finance, Mr. Eric Stefanson, requested under Section 15(1) of The Provincial Auditor's Act that we undertake a special audit of the investment made by the Vision Capital Fund in 3082512 Manitoba Ltd. The request was in response to losses incurred by the Fund as a result of the holding company declaring bankruptcy.

We Conducted a Review Rather Than An Audit

As noted above, an audit was not practical. Therefore, in order to provide the Minister with at least a moderate level of assurance on the adequacy of the Fund's due diligence practices, we conducted a review. We were able to conduct a review because of our access to Fund management and the availability of legal documents, as well as, some interview notes, analytical working papers and investee's source documents.

ABOUT THE FUND

History and Purpose

The Vision Capital Fund is a limited partnership that was originally established in 1987 as the Small Business Growth Fund. Pursuant to the amended and restated Limited Partnership agreement dated March 21, 1990, the Limited Partnership changed its name from Small Business Growth Fund to Vision Capital Fund and the term of the Fund was extended to February 28, 2001. This term has been further extended to December 31, 2002.

Venture capital funding means that the Fund will invest in the equity or debt of a privately held company. Stages of investment can be from early stage companies to later stage investments consisting of turnarounds or buyouts. The Fund will monitor their investment through either a Board of Directors position for an equity instrument or observer status on the Board of Directors for a debt instrument.

The goals of the Fund are to provide venture capital funding for new and expanding Manitoba businesses thereby assisting them to grow and develop into larger more viable enterprises, to create more jobs for Manitobans and to help maximize value for the shareholders of these companies. While pursuing these goals, the primary objective of a venture capital investment is capital gains. These investments can take the form of either convertible debentures and common or convertible preferred shares. Such investments are usually not secured by assets of the business. The size of individual investments made by Vision Capital Fund are between $100,000-$4,500,000.

The Province of Manitoba, through the Manitoba Development Corporation, is one of thirty-five limited partners in the Fund. The Province owns 125 of 510 partnership units resulting in a 24.5% ownership of the Fund.

Investors in the Fund seek a return primarily as a result of capital gains. However, they also earn interest on invested capital. Interest is accrued at the rate of 9% per annum on the partner's capital adjusted for 15% of any investment write downs, net of recoveries. The 15% is the approximate proportion of the Limited Partner's investment in the Fund.

On March 23, 1990, the Fund entered into a Loan Agreement with the Province of Manitoba for $30,000,000. Interest is accrued at the rate of 5% per annum on the principal amount adjusted for 85% of any investment write downs, net of recoveries. The 85% is the approximate proportion of the Province's loan investment in the Fund. On July 1,1997, the Fund entered into a Second Loan Agreement with the Province for $8,500,000. Interest is accrued at the rate of 10.25% per annum compounded monthly on the principal amount adjusted for 85% of any investment write downs, net of recoveries. A requirement of the Second Loan Agreement is that all advances on the Province's loan be matched on a pro rata basis with funds from the Limited Partners on an 85% - 15% basis respectively.

Investment in 3082512 Manitoba Ltd.

The Vision Capital Fund invested, through a holding company owned by Mr. Michael Shamray (3082512 Manitoba Ltd.), in the following companies: Schmidtke Millwork (1993) Ltd., Delano Building Products Ltd., and Northstar Gaming Ltd. The Fund's total investment of $4,500,000 represents two separate investments made in the holding company over a period of ten months. Throughout the balance of this report this investment is referred to as "the Shamray Group".

PURPOSE, SCOPE AND APPROACH

We determined that the purpose of the review was to answer the following two questions.

1. **DOES THE VISION CAPITAL FUND EXERCISE SUFFICIENT AND APPROPRIATE DUE DILIGENCE IN EVALUATING ITS INVESTMENT PROPOSALS?**
2. **DOES THE VISION CAPITAL FUND EXERCISE SUFFICIENT AND APPROPRIATE DUE DILIGENCE IN MONITORING ITS INVESTMENTS?**

It is important to note that our review focussed on the adequacy of the due diligence processes followed and not on the relative merits of the investments made.

Although the request from the Minister of Finance was directed toward the investment in the Shamray Group, we determined that an examination of three investments, including the Shamray Group, would better enable an assessment of the processes that the Fund typically applies in conducting its due diligence.

We conducted our review during January to June 1999. The investments that we selected were approved during the period July 1996 to January 1999.

Our examination was conducted in accordance with the standards for assurance engagements recommended by the Canadian Institute of Chartered Accountants.

In conducting our work we examined various files, reports, agreements and other documents maintained by the Fund. As well we conducted numerous interviews with Fund officials.

IMPORTANT CONSIDERATIONS

Assessing the adequacy of due diligence is not simply a matter of perfunctorily applying our criteria. The degree of effort exerted by Fund management must be assessed on an investment by investment basis. Because each investment is unique, what constitutes due diligence may vary.

The judgement of what constitutes due diligence is critical to the Fund's success and must be made by experienced individuals. In this regard, we note that the Fund's management team is comprised of highly trained and experienced professionals in the financial sector.

It needs to be stressed that venture capital financing is a form of financing that is not secured by assets of the business. Such financing means that the Fund will take an equity position in a company and as a result will share in the increased value of that company. The potential return on this type of investment is considerably higher than a debt instrument where the interest rate is usually a fixed rate. This potentially higher return reflects the added risk involved with venture capital financing. As with any business enterprise, there is the potential for individual investment failures. In the end, however, the success of the Fund can only be assessed by determining the overall return to its limited partners.

CONCLUSIONS AND KEY FINDINGS

1. DOES THE VISION CAPITAL FUND EXERCISE SUFFICIENT AND APPROPRIATE DUE DILIGENCE IN EVALUATING ITS INVESTMENT PROPOSALS?

Based on the results of review procedures applied to three investments, including the investment in the Shamray Group, and in light of the circumstances surrounding each of the investments, nothing significant came to our attention that would suggest that the Fund does not exercise sufficient and appropriate due diligence in evaluating its investment proposals.

Our extensive discussions with Fund officials, and our examination of available working papers and documents, indicate the following key findings:

- Investments comply with the investment parameters described in the Loan Agreement.
- The potential of the products and markets were reasonably assessed.
    - *With respect to the investment in the Shamray Group, in assessing product quality for one of the operating companies which was a manufacturer, Fund management advised that they limited their assessment to a review of the manufacturing process, enquiries of company management, a review of audited financial statements and a review of accounts receivable listings for repeat customers. They determined that the manufacturing equipment was leading edge and that there were repeat customers. In addition, Fund management indicated that the company's most recent audited financial statements demonstrated revenue growth, that many of the operating company's customers were large Canadian and U.S. public institutions and corporations with well defined purchasing requirements, and that the quality of the product produced by the operating company was well known in the community. As a result, Fund management did not believe that additional procedures were necessary. In our view, given the risk and magnitude of this investment, we believe it would have been useful to also contact a sample of the company's customers to confirm their satisfaction with the quality of the product. Our discussions with two other financial institutions that deal with the type of financing issued by the*

Fund indicated that they would normally contact a sample of the company's customers if the risk and magnitude of the investment warranted such an action.

- The competence of management personnel was reasonably assessed.
- The financial strengths and weaknesses were reasonably assessed.
- The financial projections and the adequacy of the rate of return were reasonably assessed.
- Significant risks were reasonably assessed.
- The Advisory Board was generally satisfied with the quality and quantity of information presented in the Investment Proposals.
    - *Fund management did not believe it was necessary to include, in the Investment Proposal, a summarized discussion of the risks identified and the impact on the proposed investment. They stressed that the risks are discussed at Advisory Board meetings throughout the due diligence process. In addition, we note that the Advisory Board is comprised of members who are knowledgeable and experienced investors who have a vested interest in the success of the Fund's investments.*
- The structure of the investments allows for sufficient opportunities to exit.

2. DOES THE VISION CAPITAL FUND EXERCISE SUFFICIENT AND APPROPRIATE DUE DILIGENCE IN MONITORING ITS INVESTMENTS?

We concluded that the Fund, given the specific circumstances of each investment, exercised sufficient and appropriate due diligence in monitoring its investments.

- Required information was received or action was taken.
    - *With respect to the Shamray Group, the company did not provide or was not timely in providing the required monthly financial reports. We found that Fund management responded to this situation in a reasonable and appropriate manner.*
- A seat on the Board was obtained and regular meetings of the Board were attended.
    - *With respect to the Shamray Group, no formal Board existed. However, Fund management advised that they were in frequent contact with Mr. Shamray and that they consulted on strategic matters such as acquisitions and additional financing. We noted that the Fund's work files included documentation relating to the Fund's involvement on these matters.*
- Regular discussions on financial and operating results were held.

Introduction

Vision Capital Fund had a significant investment in 3082512 Manitoba Ltd., a holding company whose principal shareholder was Mr. Michael Shamray. When this holding company declared bankruptcy in October 1998, we determined that an examination of the Fund's due diligence practices in evaluating its investment proposals and in monitoring its investments would be in the public interest. On October 28, 1998 we met with Vision Capital Fund management to discuss the nature of our intended examination. Upon discussion with Fund management and their auditors, Deloitte & Touche, Chartered Accountants, we were advised that the due diligence procedures and practices in the venture capital industry are not sufficiently standarized to ensure documentation is prepared that would enable an audit to be effectively conducted on the due diligence activities undertaken. While Fund management believed that they exceeded industry documentation practices with respect to interview notes and analytical working papers, they advised that a full paper trail of activities undertaken is not generated. Our enquiries with three financial institutions indicated that the Fund's documentation practices, with respect to interview notes and analytical working papers, appeared to be consistent with these institutions. Our initial review of the Fund's files confirmed that the paper trail of activities undertaken was not adequate to allow us to effectively conduct an audit. This is further discussed in the section of this report entitled, "Purpose, Scope and Approach".

Due Diligence refers to the proper exercise of activities considered necessary by a reasonable, prudent and knowledgeable investor to identify and understand the significant risks associated with an investment opportunity. Knowledge of these significant risks helps ensure that the investment is structured to achieve an overall rate of return commensurate with the risk assumed.

However, on January 27, 1999, the former Minister of Finance, Mr. Eric Stefanson, requested under Section 15(1) of The Provincial Auditor's Act that we undertake a special audit of the investment made by the Vision Capital Fund in 3082512 Manitoba Ltd. The request was in response to losses incurred by the Fund as a result of the holding company declaring bankruptcy.

As noted above, an audit was not practical. Therefore, in order to provide the Minister with at least a moderate level of assurance on the adequacy of the Fund's due diligence practices, we conducted a review. We were able to conduct a review because of our access to Fund management and the availability of legal documents, as well as, some interview notes, analytical working papers and investee's source documents.

We would like to take this opportunity to thank Westgate Capital Management Ltd. and its staff for their cooperation.

About the Vision Capital Fund

HISTORY AND PURPOSE

The Vision Capital Fund is a limited partnership that was originally established in 1987 as the Small Business Growth Fund. Pursuant to the amended and restated Limited Partnership agreement dated March 21, 1990, the Limited Partnership changed its name from Small Business Growth Fund to Vision Capital Fund and the term of the Fund was extended to February 28, 2001. This term has been further extended to December 31, 2002.

Venture capital funding means that the Fund will invest in the equity or debt of a privately held company. Stages of investment can be from early stage companies to later stage investments consisting of turnarounds or buyouts. The Fund will monitor their investment through either a Board of Directors position for an equity instrument or observer status on the Board of Directors for a debt instrument.

The goals of the Fund are to provide venture capital funding for new and expanding Manitoba businesses thereby assisting them to grow and develop into larger more viable enterprises, to create more jobs for Manitobans and to help maximize value for the shareholders of these companies. While pursuing these goals, the primary objective of a venture capital investment is capital gains. These investments can take the form of either convertible debentures and common or convertible preferred shares. Such investments are usually not secured by assets of the business.

The size of individual investments made by Vision Capital Fund are between $100,000-$4,500,000. The criteria utilized in selecting investments by the Fund are as follows:

- sound management with a proven track record of success;
- possession of a unique product with a comparative advantage;
- the potential to expand markets beyond Manitoba; and
- overall prospects for considerable growth in earnings in a three to five year time frame.

INVESTMENT IN VISION CAPITAL FUND

The Province of Manitoba, through the Manitoba Development Corporation, is one of thirty-five limited partners in the Fund. The Province owns 125 of 510 partnership units resulting in a 24.5% ownership interest in the Fund.

Investors in the Fund seek a return primarily as a result of capital gains. However, they also earn interest on invested capital. Interest is accrued at the rate of 9% per annum on the partner's capital adjusted for 15% of any investment write downs, net of recoveries. The 15% is the approximate proportion of the Limited Partner's investment in the Fund.

On March 23, 1990, the Fund entered into a Loan Agreement with the Province of Manitoba for $30,000,000. Interest is accrued at the rate of 5% per annum on the principal amount adjusted for 85% of any investment write downs, net of recoveries. The 85% is the approximate proportion of the Province's loan investment in the Fund. On July 1,1997, the Fund entered into a Second Loan Agreement with the Province for $8,500,000. Interest is accrued at the rate of 10.25% per annum compounded monthly on the principal amount adjusted for 85% of any investment write downs, net of recoveries. A requirement of the Second Loan Agreement is that all advances on the Province's loan be matched on a pro rata basis with funds from the Limited Partners on an 85% - 15% basis respectively. The matching funds from the Limited Partners can be drawn from the distributions payable to the partners from divestiture or other proceeds. Details of the Province's investment in the Fund are summarized in Figure 1.

FIGURE 1

	Balances as at March 31, 1999
Actual committed capital by the Province	$ 1,617,500
Total committed capital of the Limited Partnership	$ 6,600,000
Percentage owned by the Province	24.5%
Capital advanced to the Fund by the Province	$ 1,376,686
Capital Distributions by the Fund to the Province	399,312
Net Partner's Capital - Province	$ 977,374
Total amount of Loan Act authority committed by the Province	$ 38,500,000
Actual amount of loan advanced by the Province	$ 32,928,986
Actual amount of loan returned to the Province by the Fund	12,303,112
Net Loan Receivable - Province	$ 20,625,874

Source: Vision Capital Fund

DISTRIBUTIONS OF DIVESTITURE PROCEEDS AND OTHER PROCEEDS

Divestiture proceeds are defined as the net monies received by the Fund from the divestiture of an investment. Divestiture proceeds must be distributed by the Fund to the Province and the Limited Partners within 14 days of receipt.

Other proceeds are defined as other monies received by the Fund, such as fees, interest, royalties, and dividends, net of expenses of the Fund and a reasonable reserve for the Fund's expenses for the current year. Other proceeds must be distributed by the Fund to the Province and the Limited Partners within 14 days after the approval of the Fund's audited financial statements by the Advisory Board.

In accordance with the Second Loan Agreement, proceeds are generally distributed 85% to the Province and 15% to the Limited Partners. This distribution ratio applies until the Province and the Limited Partners have received, for the first and second loans respectively, all principal and capital contributions adjusted for investment write downs, net of any subsequent recoveries, and all accrued interest. Any remaining proceeds will be distributed 40% to the Province, 40% to the Limited Partners, and 20% to the Fund's manager, Westgate Capital Management Ltd.

As at December 31, 1999 the Province has recorded investment write downs of $10,268,734. Fund management estimates, as at December 31,1999, that the Province will fully recover its investment in the Fund including accrued interest on the loan.

FUND MANAGEMENT

Management of the Fund is provided by Westgate Capital Management Ltd., a Winnipeg based venture capital management company. An Advisory Board of eight members, representing the investors in the Fund, independently monitors the overall strategy and approves the investment decisions of the Fund.

THE FUND'S INVESTMENT IN 3082512 MANITOBA LTD.

The Vision Capital Fund invested, through a holding company owned by Mr. Michael Shamray (3082512 Manitoba Ltd.), in the following companies: Schmidtke Millwork (1993) Ltd., Delano Building Products Ltd., and Northstar Gaming Ltd. As noted in Figure 2, the Fund's total investment of $4,500,000 represents two separate investments made in the holding company over a period of ten months. Throughout the balance of this report this investment is referred to as "the Shamray Group".

FIGURE 2

Investment in 3082512 Manitoba Ltd.					
Financial Instrument	*Amount*	*Interest Rate*	*Approval Date*	*Date Funded*	*Maturity Date*
Convertible Debenture	$3,000,000.00	7%	August 21, 1997	October 27, 1997	October 31, 2002
Convertible Debenture	$1,500,000.00	7%	June 17, 1998	September 8, 1998	October 31, 2002

Source: Vision Capital Fund

THE DUE DILIGENCE PROCESS

Preliminary Review

The Fund's Managing Partners and the Fund's analysts review a potential investment's business plan using their preliminary evaluation checklist as a guide. This initial review includes a preliminary assessment of the risks associated with the potential investment, an assessment of whether the potential investment complies with the investment parameters described in the Loan Agreement between the Province of Manitoba and the Fund, and an assessment of whether the potential investment meets the Fund's criteria for selecting investments. The Fund's Managing Partners and the Fund's analysts meet to discuss the issues that are identified from their preliminary review. At this meeting they decide if there is enough interest to proceed. If so, then one of the Fund's staff is selected as the lead manager and the due diligence process begins. At this time the potential investment opportunity is discussed at the monthly Advisory Board meeting. Advisory Board members participate in discussions and provide Fund management with their views and suggestions.

Evaluation

The next stage of the process is the formal evaluation of the opportunities and risks associated with the potential investment. Fund management meets with senior management of the company to obtain more knowledge of the business risks and to request additional information. Based on the information received from the company and the analyses performed to date, a decision is made on whether they should pursue the investment.

If Fund management decides to continue the evaluation process, they prepare a draft letter of intent that outlines the general terms and conditions under which the Fund proposes to invest in the company. These terms and conditions are negotiated with the potential investee and both parties involved sign the letter of intent. Once the terms and conditions of the investment are agreed to, the Fund completes their detailed analyses of the potential investment. Because of the significant time required to perform the due diligence work, most of these analyses are performed after the letter of intent has been signed. The Advisory Board is updated on significant matters at the monthly Advisory Board meetings. Fund management draws upon the knowledge and experience of each of the Board members throughout the evaluation phase. Upon completion of Fund management's analyses, for the investments that they favour, Fund management prepares an investment proposal. An investment proposal summarizes the merits of the potential investment, including the rationale for making the investment and the proposed structure of the investment. The Fund's managing partners must agree on the merits of the proposed investment prior to the investment proposal being presented to the Advisory Board.

Approval

A copy of the investment proposal is provided to the members of the Advisory Board for their review. The lead manager for the investment presents the investment proposal to the Advisory Board with the Fund's managing partners participating in the presentation. If the investment is approved, Fund management completes the funding process. This involves the final negotiation of the deal structure. A copy of the finalized letter of intent is provided to the Fund's solicitor along with any verbal instructions from Fund management relating to the deal structure. The Fund's solicitor prepares the debenture or shareholders agreement and other legal documents. If a significant change is made to the deal structure during the final negotiations with the company, Fund management will seek Advisory Board approval. When the debenture or shareholder agreement and other legal documents are signed, funds are forwarded to the company.

Monitoring

The debenture or shareholders agreement includes reporting requirements and covenants considered necessary by Fund management in response to identified risks. Such covenants may include the requirement that the Fund have a seat on the company's Board. A representative of the Fund regularly attends the company's Board meetings. Regular discussions are held between senior management of the company and Fund management to discuss financial and operating results. As considered necessary, the Fund will take action to address issues of non-compliance by the company to the covenants contained in the financing agreement or when operating results indicate that their investment is at risk. Quarterly reports discussing the status of the particular investment are provided to the Advisory Board for their review and comments.

Purpose, Scope and Approach

PURPOSE

We determined that the purpose of our review was to answer the following two questions.

1. DOES THE VISION CAPITAL FUND EXERCISE SUFFICIENT AND APPROPRIATE DUE DILIGENCE IN EVALUATING ITS INVESTMENT PROPOSALS?

2. DOES THE VISION CAPITAL FUND EXERCISE SUFFICIENT AND APPROPRIATE DUE DILIGENCE IN MONITORING ITS INVESTMENTS?

It is important to note that our review focussed on the adequacy of the due diligence processes followed and not on the relative merits of the investments made.

We Conducted A Review Rather Than An Audit

In order to conduct an audit, as requested by the former Minister of Finance, we would require evidence that demonstrated the due diligence actions taken. While oral evidence (management representations) is frequently used in value-for-money audits, such evidence is corroborated by independent alternative sources or by other types of evidence, such as documents, notes and analyses. Notes and analyses prepared by Fund management and generated as the activity occurs, are a good indicator of actions taken, the rigor of analysis performed and of the thought processes that lead to decisions. Management representations made months or years after the activity in question, while pertinent, are not, in and of themselves, sufficient evidence that an action occurred.

We noted that the Fund's documentation practices, with respect to interview notes and analytical working papers, did not result in an adequate paper trail of the due diligence activities undertaken. In addition, reliable alternative sources of evidence were unavailable. As a result, it was not practical to conduct an audit. However, our access to Fund management and the availability of legal documents, as well as, some interview notes, analytical working papers and investee's source documents, enabled us to conduct a review.

Fund management states that the Fund's documentation practices, with respect to interview notes and analytical working papers, exceed industry practices for investment funds of a similar size and nature. Although we did not benchmark, we obtained a general understanding of the documentation practices common within their industry, by meeting with three financial institutions, two of whom deal with the type of financing issued by the Fund. These financial institutions were considerably larger than the Fund and consequently had very detailed policies and procedures. Regardless, we noted that the Fund's documentation preparation and retention practices, with respect to interview notes and analytical working papers, appeared to be consistent with these institutions.

Overall, with regard to the three investments examined, the Fund's documentation preparation and retention practices only allowed us to conduct a review of the following areas:

- The Fund's assessment of the potential of the company's product or service and market,
- The Fund's assessment of the competence of the company's management,
- The Fund's assessment of whether the company's financial projections can be reasonably achieved and whether they reflect an adequate rate of return, and

- The Fund's identification of the risks associated with the investment and their assessment of those risks.

SCOPE

Although the request from the Minister of Finance was directed toward the investment in the Shamray Group, we determined that an examination of three investments, including the Shamray Group, would better enable an assessment of the processes that the Fund typically applies in conducting its due diligence.

We conducted our review during January to June 1999. The investments that we selected were approved during the period July 1996 to January 1999.

APPROACH

Our review was based on criteria that reflect the activities necessary to ensure due diligence in evaluating the investment proposals and monitoring investments made by the Fund. The criteria were developed in consultation with the Fund's management and the Fund's auditors, Deloitte & Touche, Chartered Accountants.

Our examination was conducted in accordance with the standards for assurance engagements recommended by the Canadian Institute of Chartered Accountants.

In conducting our work we examined various files, reports, agreements and other documents maintained by the Fund. As well we conducted numerous interviews with Fund officials.

Important Considerations

Assessing the adequacy of due diligence is not simply a matter of perfunctorily applying our criteria. The degree of effort exerted by Fund management must be assessed on an investment by investment basis. Because each investment is unique, what constitutes due diligence may vary.

The judgement of what constitutes due diligence is critical to the Fund's success and must be made by experienced individuals. In this regard, we note that the Fund's management team is comprised of highly trained and experienced professionals in the financial sector.

Due diligence activities can be impacted by a number of factors. For example, certain investment opportunities may be supported by work prepared by highly qualified and respected consultants hired by the company or other significant investors. This may present an opportunity for the Fund to limit or to rethink the specific due diligence procedures required.

As previously discussed, the Second Loan Agreement between the Fund and the Province is structured in such a way that the Fund's Managing Partners will receive 20% of the remaining proceeds after the Province and the Limited Partners have received all principal and capital contributions, adjusted for investment write downs, and all accrued interest. As a result, the Fund's Managing Partners have a vested interest in the success of the Fund's investments. This should impact favourably on the level of due diligence that is carried out by the Fund's management team.

Finally, it needs to be stressed that venture capital financing is a form of financing that is not secured by assets of the business. Such financing means that the Fund will take an equity position in a company and as a result will share in the increased value of that company. The potential return on this type of investment is considerably higher than a debt instrument where the interest rate is usually a fixed rate. This potentially higher return reflects the added risk involved with venture capital financing. As with any business enterprise, there is the potential for individual investment failures. In the end, however, the success of the Fund can only be assessed by determining the overall return to its limited partners.

The Province, as a Limited Partner, has investment objectives that go beyond the overall rate of return. It must also, therefore, determine how well the Fund is contributing to its policy objectives. In our Study of Investment Disclosure Practices – Risk Capital Funds, which was included in our Spring 1998 Report to the Legislative Assembly, we encouraged the government to improve the nature of the planning and performance information reported to the Legislative Assembly on the third party delivered risk capital funds program. We believe that the more transparent the government can be, while respecting the need for privacy of investees, the more the government will assist the Members of the Legislative Assembly in making informed assessments on the activities of the funds within which it invests.

Review Conclusions and Observations

1. DOES THE VISION CAPITAL FUND EXERCISE SUFFICIENT AND APPROPRIATE DUE DILIGENCE IN EVALUATING ITS INVESTMENT PROPOSALS?

What We Concluded

Based on the results of review procedures applied to three investments, including the investment in the Shamray Group, and in light of the circumstances surrounding each of the investments, nothing significant came to our attention that would suggest that the Fund does not exercise sufficient and appropriate due diligence in evaluating its investment proposals.

We based our conclusion on the following criteria:

- Investments should be in compliance with the investment parameters described in the Loan Agreement between the Province of Manitoba and the Vision Capital Fund dated March 23, 1990.
- The Fund should assess the potential of the company's product or service and market.
- The Fund should assess the competence of the company's management.
- The Fund should assess the financial strengths and weaknesses of the company.
- The Fund should assess whether the company's financial projections can be reasonably achieved and whether they reflect an adequate rate of return.
- The Fund should ensure significant risks are identified and addressed.
- Sufficient information should be presented to the Advisory Board to permit an informed decision to be made.
- The Fund should ensure that the structure of the investment allows for sufficient opportunities for the Fund to exit the investment.

What We Observed

Because the request specifically referred to the Shamray Group of companies, our findings are presented separately for this investment within each of the following sections.

Investments Comply with Investment Parameters Described in the Loan Agreement

The Loan Agreement between the Province of Manitoba and the Vision Capital Fund dated March 23, 1990 describes the investment parameters under which the Fund may make investments.

For the three investments we examined, including the investment in the Shamray Group, we determined that all investments complied with the investment parameters described in the Loan Agreement.

Potential of Products and Markets Reasonably Assessed

Conducting an appropriate evaluation of the potential of the company's product and market is an integral part of evaluating an investment. Such an evaluation would include:

- an assessment of whether the product has or will have a competitive advantage,
- an assessment of the quality of the product,
- an assessment of the proprietary nature of the product,
- an assessment of whether there are any barriers to entry into the product's market,
- an analysis of whether there is an adequate market for the product,
- an analysis of the sales forecasts to determine if they are based on reasonable assumptions, and
- an analysis of how the company performs in relation to other companies within the industry.

Assessing the potential of the company's product and market is important because such an evaluation helps ensure that the investor obtains a sound understanding of the product and market and the associated risks. In so doing, the investor can better evaluate the growth potential of the company.

Competitive Advantage

We found that for the three investments we reviewed, Fund management determined through discussions with various parties that competitive advantages for the major products existed. Certain of these discussions were noted in the Fund's work files.

With respect to the investment in the Shamray Group, Fund management advised that they discussed the competitive advantages of the company's major products with several of the company's senior managers.

Quality of the Product

We found, for the three investments we reviewed, that Fund management adequately assessed the quality of the product. Fund management used a variety of practices in performing this assessment.

For one of these investments, Fund management reviewed the report of an independent consultant, hired by the bank. This report evaluated the results of product tests performed by other parties. For another investment, Fund management advised that they relied on the lead and other investors, who were very knowledgeable of the industry to review the test results of the product. The lead and other investors informed Fund management that the test results were very positive.

With respect to the investment in the Shamray Group, two of the operating companies were resale operations rather than manufacturers so an assessment of the quality of the products was not applicable.

Regarding the other operating company, which was a manufacturer, Fund management advised that they evaluated the quality of the product by touring the manufacturing plant on a number of occasions and by reviewing the plant layout with a senior company official. In addition, the Fund contacted three industry-related associations, which confirmed that the manufacturing equipment used by the company was leading edge. Fund management also advised that their enquiries of company management and their review of accounts receivable listings revealed that the company had repeat customers. We found that the results of certain of these actions were noted in the Fund's work files.

In addition to the above actions, Fund management indicated that the company's most recent audited financial statements demonstrated revenue growth, that many of the operating company's customers were large Canadian and U.S. public institutions and corporations with well defined purchasing requirements, and that the quality of the product produced by the operating company was well known in the community. As a result, Fund management did not believe that additional procedures were necessary. In our view, given the risk and magnitude of this investment, we believe it would have been useful to also contact a sample of the company's customers to confirm their satisfaction with the quality of the product. Our discussions with two other financial institutions that deal with the type of financing issued by the Fund indicated that they would normally contact a sample of the company's customers if the risk and magnitude of the investment warranted such an action.

Proprietary Nature of the Product

For one of the investments we reviewed, we found that the Fund appropriately assessed the proprietary nature of the product by obtaining copies of applicable patents and agreements.

For the other two investments we reviewed, including the Shamray Group, this type of assessment was not applicable.

Barriers to Entry into the Product's Market

We found, for the three investments we reviewed, that Fund management appropriately assessed whether or not there were barriers to entry into the product's market.

Specifically, regarding the investment in the Shamray Group, we found that Fund management had identified the need to obtain gaming licenses as a barrier to market entry for certain products retailed by one of the three operating companies. We found that Fund management had obtained copies of all existing gaming licenses and that through discussions with senior management they were assured that the remaining licenses could be obtained. For the other two operating companies, Fund management advised that the barriers to entry into the products' markets had been satisfactorily resolved.

Market Analysis

For each of the three investments we reviewed, we noted that different but appropriate approaches were taken in assessing the adequacy of the product's market.

For one of these investments, Fund management advised that they limited their market analysis to several discussions with the lead investor, with senior management of the company and with senior managers of another company in the industry. Fund management advised that through these discussions they concluded that the company had a reasonable marketing strategy. Because the company's product was a commodity and had significant freight advantages over other western producers, Fund management did not believe that additional work was required on analyzing the adequacy of the product's market. We found that certain of the discussions referred to above were noted in the Fund's work files.

For another investment, Fund management advised that a market analysis was unnecessary because they had evidence that a significant portion of the product was under pre-sold sales contracts.

With respect to the investment in the Shamray Group, we found that the Fund performed a market analysis on the products manufactured or retailed by the three operating companies. This analysis included industry research, interviews with industry analysts, interviews with related industry associations, and discussions with senior managers of The Shamray Group. Fund management advised that they determined that there was a sizeable target market for each of the products.

Sales Forecasts

For the three investments we reviewed, Fund management advised that sales forecasts were analyzed to determine their reasonableness. We found limited notes of interviews conducted or analytical working papers prepared.

For two of these investments, Fund management advised that they relied on the work of third parties. Specifically, reliance was placed on analyses prepared by the lead investor and on the work of another significant investor. Fund management's reliance was made possible by their numerous discussions with these third parties.

Regarding the Shamray Group, Fund management advised that there was a rigorous internal challenge process over the reasonableness of the sales forecasts. They believed that the five-year sales forecasts received from the Shamray Group were too optimistic. As a result, Fund management performed a sensitivity analysis on the company's sales forecasts assuming different levels of revenue growth for each of the three operating companies. As part of the sensitivity analysis, Fund management recognized the aggressiveness of one of the operating company's sales forecasts and reduced the first year of the five-year sales forecasts for this operating company by about one-third. Fund management subsequently prepared a low-end sales forecast and a most likely sales forecast for the Shamray Group.

Industry Comparables

For two of the investments we reviewed, Fund management advised that there were no meaningful comparable public companies upon which to compare performance.

With respect to the investment in the Shamray Group, we found that Fund management performed a detailed analysis, for two of the operating companies, of how they performed in relation to other companies within the industry. Fund management advised that there were no meaningful comparable public companies upon which to compare performance of the third operating company.

Competence of Management Personnel Reasonably Assessed

In conducting an assessment of the competence of a company's management, an investor should assess whether the management team has the capability and experience to grow the business and assess whether the management team should be strengthened now or in the future. Assessing management's competence is important because management is crucial to the success of any business venture, particularly if the company is starting up, is expanding into new markets, or is experiencing considerable growth.

Assessment of the Management Team

An assessment of whether the management team has the capability and experience to grow the business should result from an appropriate combination of information obtained from performing reference checks and interviewing senior management. Performing reference checks with past and current business associates is critical when reviewing senior management's track record and for assessing whether there are any concerns with their competence and integrity. Interviewing senior management is also important for assessing management competence and integrity.

For the three investments we reviewed, the Fund's total effort to assess whether the management team had the capability and experience to grow the business appeared appropriate.

By a **start-up** we mean a business that has just begun, or will soon begin operations.

Two of the investments we examined were start-ups. Both of these investments were in the process of recruiting a management team. Fund management advised that in both cases they relied on the lead investor to perform reference checks on key senior managers or the project promoters and to recruit members of the senior management teams. We found that the Fund's work files included senior managers' resumes or brief notes describing the senior manager's track record.

Regarding interviews with senior management and other investors, for one of the start-up investments, Fund management advised of having several interviews with the President, the Marketing Manager, and the lead investor. For the other start-up investment they had a few interviews with the project promoters and other investors. Certain of these discussions were noted in the Fund's work files.

For the investment in the Shamray Group, Fund management advised that they conducted three reference checks on the Vice-President of Finance and numerous reference checks on the President. Fund management also advised that they had had previous dealings with the Vice-President of Finance and were well aware of his capabilities.

Regarding interviews with senior management of the Shamray Group, Fund management advised that they had several interviews with the President, Vice-President of Finance, and the Manager of Corporate Development. In addition, they had a few interviews with the Vice-President of Operations, Vice-President of Marketing, and the General Managers for each of the three operating companies. We found certain of these interviews and one reference check were noted in the Fund's work files.

Strengthening of the Management Team

For the three investments we reviewed, Fund management advised that they assessed whether the management team required strengthening now or in the future. However, we found limited working papers documenting these assessments in the Fund's work files.

For one of the start-up investments in our sample, Fund management advised that initially the management team did not require strengthening. However, Fund management had identified the need to strengthen the marketing and administrative functions as the company grew.

For the other start-up investment, Fund management relied on the lead investor to recruit the senior management team.

With respect to the investment in the Shamray Group, after the initial investment was made, Fund management identified the need to recruit a Chief Operating Officer for the parent company. They also had concerns regarding the ability of the existing Vice-President of Finance to deal with the increasing complexity and the expected growth of the Shamray Group's activities. Fund management advised that they had numerous discussions with the President in this regard and that he was receptive to their suggestions. They also advised that they were actively searching for an appropriate individual to become the Chief Operating Officer for the group of companies.

Financial Strengths and Weaknesses Reasonably Assessed

Conducting an appropriately detailed evaluation of the financial strengths and weaknesses of a potential investment is an essential step for an investor to undertake in assessing opportunity. Such an evaluation would include:

- an assessment of whether assets and liabilities are appropriately valued,
- an assessment of whether the company's banking arrangements are appropriate,
- the calculation and evaluation of financial ratios and trends,
- the conduct of searches to ensure there are no claims or pending claims against the company,

- an assessment of whether the company has a management information system which produces accurate and timely information, and
- an assessment of whether the company has adequate insurance coverage.

Assessing the financial strengths and weaknesses of a potential investment is important because such an evaluation helps ensure that the investor obtains a sound understanding of the investee's business and the associated risks. In so doing, the investor can better weigh the risks of entering into the investment against the expected returns.

Assessment of the Valuation of Assets and Liabilities

Because two of the three investments in our sample were start-ups, an assessment of the values assigned to assets and liabilities was not applicable.

With respect to the investment in the Shamray Group, Fund management advised that they reviewed various financial records and relied on the audited financial statements. They also discussed the valuation of assets and liabilities with the Vice-President of Finance, the President of the company, and the company's external auditors. We found limited notes of these discussions in the Fund's work files.

Assessment of the Company's Banking Arrangements

For the three investments we reviewed, Fund management advised that they assessed whether the company's banking arrangements were appropriate by reviewing the terms and conditions of the existing and/or proposed banking agreements.

Specifically, regarding the investment in the Shamray Group, we found that Fund management had reviewed a copy of the current banking agreement. In addition, we found that Fund management met with The Shamray Group's account manager from the bank to discuss the bank's current financing, the security for that financing, and the recent changes in the banking agreement.

Evaluation of Financial Ratios and Trends

For the two start-up investments in our sample, an evaluation of financial ratios and trends was not applicable.

With respect to the investment in the Shamray Group, we found that Fund management calculated several financial ratios for each of the three operating companies for the 1995-1996 period. Fund management advised that, in their view, these ratios did not indicate any significant financial weaknesses in the company. As a result, more detailed analyses of these ratios were not conducted.

Searches for Claims

For two of the investments we reviewed, including the Shamray Group, the Fund's solicitor conducted searches with the various public registries, such as the Personal Property Registry of Manitoba, as well as various other federal and provincial government offices.

For the other investment we reviewed, searches for claims or pending claims were unnecessary because the company was incorporated just prior to funding.

Assessment of Management Information System

For the two start-up investments in our sample, an assessment of management information systems was not applicable.

With respect to the investment in the Shamray Group, Fund management advised that they relied on the company's external auditors for the adequacy of the financial reporting and internal costing systems. Nevertheless, through discussions with management of the operating companies, Fund management identified that accountants were needed at all but one of the operating companies to ensure accuracy of financial information and to improve the quality of financial reporting. An exception was made for this operating company because it was a resale company rather than a manufacturer.

Fund management also advised that they had discussions with various personnel in the manufacturing plant regarding the recently implemented production information system, and concluded that it was appropriate.

We found limited notes in the Fund's work files regarding discussions held and analyses conducted on the company's management information systems.

Adequacy of Insurance Coverage

For the three investments we reviewed, we found that the financing agreements included covenants requiring that insurance be maintained to the extent that is usual and prudent within the company's particular industry.

For one of the investments we reviewed, Fund management advised that an assessment of the adequacy of insurance coverage was unnecessary because the company had not yet purchased any assets and had not commenced operations.

For the two other investments we reviewed, including the Shamray Group, we found that the Fund's solicitor obtained evidence of the types and levels of insurance coverage maintained by the company. In addition, Fund management advised that they assessed the adequacy of insurance coverage maintained by the company. The Fund's work files did not refer to these assessments but, for the Shamray Group, included copies of pertinent insurance policies.

Financial Projections and Adequacy of Rate of Return Reasonably Assessed

Assessing whether a company's financial projections reflect an adequate rate of return and can be reasonably achieved is an integral part of evaluating an investment. This would include assessing whether future capital needs are adequately estimated. Financial projections assist the investor in determining whether the growth of the company will be enough to earn the investor a rate of return commensurate with the risk assumed.

Financial Projections

Fund management advised, for the three investments we reviewed, that they assessed whether financial projections could be reasonably achieved. This assessment included an analysis of the assumptions used. Fund management advised that once the investments were made most analyses and notes of discussions with company officials and other significant parties were not retained.

For two investments, Fund management relied on the work of third parties. Specifically, for one of these two investments, reliance was placed on analyses performed by the lead investor. For the other investment, reliance was placed on the work of another significant investor and an independent consultant hired by the bank.

With respect to the investment in the Shamray Group, Fund management advised that they assessed the reasonableness of the assumptions used in the company's five-year financial projections, compared the assumptions in the projections to the company's historical audited financial statements, and compared the gross and net operating margins with public companies in similar industries as applicable. Based on this assessment, Fund management believed that the sales forecasts in the five-year financial projections were too optimistic. As a result, Fund management performed a sensitivity analysis on the company's five-year financial projections assuming different levels of revenue growth but using the identical gross profit margins and operating expenses as a percentage of projected revenue that were used by the Shamray Group. In our view, it would have been useful to explore the impact of the different levels of revenue growth on gross profit margins and operating expenses.

Fund management included five-year financial projections for the low-end case, the most likely case, and the high-end case in the Investment Proposal presented to the Advisory Board. Throughout this assessment process, Fund management advised that there was a rigorous internal challenge process over the reasonableness of these financial projections.

Adequacy of Rate of Return

We found that, for two of the investments we reviewed, Fund management determined whether an adequate rate of return could be achieved by calculating an internal rate of return on the proposed investment based on, in their view, the most likely financial scenario. These projected rates of return were included in the Investment Proposals presented to the Advisory Board.

With respect to the investment in the Shamray Group, Fund management calculated an average annual rate of return over a five-year period based on the financial projections for the low-end case, the most likely case, and the high-end case which were referred to above. This range of possible average annual rates of return over a five year period was included in the Investment Proposal presented to the Advisory Board.

Assessment of Estimated Future Capital Needs

For two of the investments we reviewed, which were start-ups, Fund management advised that their focus was on the company's short-term capital needs. We concur with this focus.

With respect to the investment in the Shamray Group, we found that Fund management determined that the capital expenditures projected by the company were in line with industry estimates for sustaining capital expenditures.

Significant Risks Reasonably Assessed

In assessing an investment opportunity, an investor should assess the risks associated with the business venture and whether these risks are commensurate with the expected rate of return.

Fund management advised that all investments are subject to a rigorous internal challenge process amongst the managing partners of the Fund. They advised that the challenge process involves numerous informal discussions amongst the Fund's Managing Partners and Fund's analysts to identify, assess and determine the Fund's required actions regarding the risks associated with the investment. Notes of this challenge process are not prepared by the Fund.

In addition, the Advisory Board advised that risks associated with a proposed investment are discussed at Advisory Board meetings throughout the due diligence process.

With respect to the investment in the Shamray Group, Fund management and analysts indicated that they had identified several risks. The identified risks included the transfer pricing of products between related companies owned by Mr. Shamray, the need to restructure the group of companies, the day-to-day focus of Mr. Shamray on business operations despite his considerable involvement in acquiring other companies, strengthening of the Canadian dollar against the US dollar, and a weak business plan in terms of the expansion of the gaming company. Fund management also indicated that they assessed whether these risks could be mitigated, took action where possible and had significant internal debate on the risks being accepted. We found notes in the Fund's work files that identified and assessed a few of these risks.

Advisory Board Generally Satisfied with the Quality and Quantity of Information Presented in the Investment Proposal

Fund management summarizes the merits of a potential investment in a document referred to as an "Investment Proposal". Information is also provided orally to the Advisory Board. Fund management emphasized that each potential investment is discussed in depth at a number of Board meetings over a considerable time period. In addition, they indicated that the Board members make frequent inquiries and suggestions that are followed up at subsequent Board meetings. The Advisory Board advised that oral presentations and discussions complemented by Investment Proposals result in sufficient information for informed decision making.

We examined the Investment Proposals presented to the Advisory Board for the three investments in our sample. We found that sufficient information was generally provided in the Investment Proposals regarding the company's market, management, financial strengths and weaknesses, and financial projections. However, Fund management did not believe it was necessary to include, in the Investment Proposal, a summarized discussion of the risks identified and the impact on the proposed investment. They stressed that the risks are discussed at Advisory Board meetings throughout the due diligence process. In addition, we note that the Advisory Board is comprised of members who are knowledgeable and experienced investors who have a vested interest in the success of the Fund's investments.

With respect to the investment in the Shamray Group, we found that the Investment Proposal provided sufficient information upon which the Advisory Board could base an informed decision. However, as discussed above, it did not include a detailed discussion on the key risks that had been identified and assessed by Fund management. Fund management advised that all identified risks and their assessment of those risks were the subject of several discussions with the Advisory Board.

Structure of the Investments Allows for Sufficient Opportunities to Exit

Because of the nature of the Fund's investments and the term of the Fund expiring on December 31, 2002, it is important for the Fund to structure their investments so that they will be able to exit their investments at the most opportune time, or otherwise at the expiry date of the Fund.

For the three investments we reviewed, we found that the Fund ensured that the structure of the investment allowed for sufficient opportunities for the Fund to exit the investment.

Regarding two of these investments, the preferred exit strategy was by an initial public offering. The financing agreements were also structured in such a way that the shares or debt instrument could be sold to other investors or to third parties. In addition, for one of these investments, the investment was structured so that if the Fund could not sell its shares to other investors or to third parties, the ownership of the shares could be transferred to the Fund's Limited Partners after December 31, 2000.

With respect to the Shamray Group, the Fund invested in a convertible debenture maturing on October 31, 2002. The debenture was convertible into common shares of the company in the event it went public. In addition, upon conversion of the debenture into common shares of the company subsequent to January 1, 2002, the Fund had the right to deliver a put notice to the company. The terms and conditions of the put notice resulted in a minimum annualized rate of return of 25% to

A **put notice** means that the company would have to purchase all of the common shares held by the Fund based on certain terms and conditions.

the Fund for the original investment. The minimum annualized rate of return was increased to 26% with the follow on investment. As well, the date at which the Fund had the right to deliver a put notice was extended to any time subsequent to June 30, 2002.

2. DOES THE VISION CAPITAL FUND EXERCISE SUFFICIENT AND APPROPRIATE DUE DILIGENCE IN MONITORING ITS INVESTMENTS?

What We Concluded

We concluded that the Fund, given the specific circumstances of each investment, exercised sufficient and appropriate due diligence in monitoring its investments.

We based our conclusion on the following criteria:

- To effectively monitor its investments, an investor should ensure that required information is specified in the financing agreement and that action is taken when information is not received.
- A major equity investor should ensure that the financing agreement specifies that they have a seat on the Board with full voting rights and should attend regular meetings of the Board.
- An investor should have discussions with management of the company on a regular basis to discuss variances between expected and actual financial and operating results.

What We Observed

Required Information Received or Action Taken

For the three investments we reviewed, the financing agreements appropriately reflected the information requirements of the Fund. This was generally limited to specific financial information and the required frequency. In addition, we found that quarterly reports discussing the status of the particular investments were presented to the Advisory Board.

For two of these investments, we found that the Fund received the required information as specified in the financing agreement.

For the investment in the Shamray Group, the company did not provide or was not timely in providing the required monthly financial reports. We found that Fund management responded to this situation in a reasonable and appropriate manner.

Although the Shamray Group repeatedly failed to comply with the reporting requirements of their financing agreement, as discussed below, Fund management did not believe it was necessary to take legal action. They indicated that throughout the investment period they were in frequent contact with senior management and through these contacts received information on the ongoing operations. Certain of this information exceeded the requirements of the financing agreement. Fund management advised, based on the above noted information, that they were satisfied with the operating results of the company throughout the investment period. Fund management's judgement, given what was known at the time, appears reasonable.

We found that over the investment period of twelve months the Fund did not receive five of the monthly financial statements and received two of the monthly financial statements well after the 30 day required time frame from the Shamray Group. Fund management advised that they were persistent in requesting consolidated monthly financial statements from the company. We also noted that four of the monthly financial statements received were presented on a combined rather than on a consolidated basis for 3082512 Manitoba Ltd. This had the effect of overstating sales. In addition, two of these four monthly financial statements included the results of other related companies. This also had the effect of overstating net income.

Obtain Seat on the Board and Attend Regular Meetings of the Board

We found that for two of the investments we reviewed, the financing agreements specified that the Fund have a seat on the Board with full voting rights. In addition, we found that a representative of the Fund attended Board meetings on a regular basis.

The Shamray Group had no formal Board. However, Fund management advised that they were in frequent contact with Mr. Shamray and that they consulted on strategic matters such as acquisitions and additional financing. We noted that the Fund's work files included documentation relating to the Fund's involvement on these matters.

Regular Discussions of Financial and Operating Results

For the three investments we reviewed, Fund management advised that they discussed variances between expected and actual financial and operating results with senior management of the companies. Certain of these discussions were noted in the Fund's work files.

With respect to the investment in the Shamray Group, Fund management advised that while certain interim financial statements were not received, available interim financial statements were reviewed and discussed with senior management of the Shamray Group. We found that, in addition to the review of financial results, the Fund was heavily involved in assisting the company in restructuring the Shamray Group of companies. As well, the Fund monitored the industry, assessed financial projections under different scenarios and reviewed external business valuations of the Shamray Group.

Fund Management Response

After a long and extensive process, Vision Capital is pleased that the Provincial Auditor concluded that the Fund exercised sufficient and appropriate due diligence in monitoring its investments and nothing suggested that the Fund did not exercise due diligence in evaluating investment proposals. Vision Capital is gratified that the Provincial Auditor believes these conclusions speak well of the Fund.

These results should give comfort to those who expressed concerns about our due diligence process. Vision Capital has always maintained standards that, in our view, exceeded those common to the industry. Vision's Advisory Board, investors, investees, management and employees have all been impacted by the controversy surrounding this review. For them, these results are gratifying.

The Fund Managers would like to thank our Advisory Board, professional advisors and staff for their patience and cooperation during this period. Also, we extend our appreciation to members of the Office of the Provincial Auditor for their courtesy and professionalism. These reviews were a first for both the Provincial Auditor and the two Funds and has been a unique and challenging experience for all parties.