

**Strategic Knowledge Management:
Leveraging Intangible Assets in Adult Education Consulting**

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Abstract

This capstone project will provide recommendations for the implementation of strategic knowledge management at an adult education consulting company (hereinafter referred to as The Company) through the leveraging of intangible assets. This paper will discuss the relevant knowledge management theories of Verna Allee, Karl-Erik Sveiby, Hubert Saint-Onge, and Charles Armstrong, conduct an Environmental Analysis, present a value network, outline Intangible Assets Monitor metrics; the provided recommendations synthesize these areas and propose a focus for The Company's knowledge, customer, organizational, and business strategies. This project is the culmination of Jones International University's Masters of Education program and employs the concepts taught throughout the program.

Introduction

The purpose of this paper is to provide recommendations for the implementation of strategic knowledge management in an adult education consulting company through the leveraging of intangible assets. This objective will be accomplished through the discussion and application of knowledge management theory. This paper will discuss relevant knowledge management theory, conduct an Environmental Analysis, present a value network, outline Intangible Assets Monitor metrics, and provide recommendations.

Knowledge Management

Knowledge management evolved as a school of thought in the 1980s, originating from intellectual capital and information management theory. While the initial theories and models were crafted several years ago, the concept of knowledge management has become increasingly popular and widely accepted over the past few years. Globalization and technology have revolutionized the way the world does business and created a new knowledge era. Companies are searching for a way to compete in the new knowledge-based economy. Focus is being shifted from the industrial era's classic management methodology of vision and values to a more holistic, strategic approach that realizes the benefits of value networks. Knowledge management is now regarded as an effective way to value an organization's tangible and intangible assets and contribute to its strategic success. Companies no longer solely compete on the basis of financial capital; knowledge is the new competitive advantage.

Comparison of Knowledge Management Theories

This section will contrast the theories of four progressive knowledge management thought leaders: Verna Allee, Karl-Erik Sveiby, Hubert Saint-Onge and Charles Armstrong. The theories of each thought leader will be explored and then compared. For the purposes of this paper this section will focus on value networks, intangible assets, the organization's environment, and the development of strategy.

Verna Allee

Verna Allee, a renowned Knowledge Management thought leader, theorizes that to be successful in today's knowledge economy organizations must adopt a value network approach. In her book *The Future of Knowledge*, Allee defines a value network as "any web of relationships that generates both tangible and intangible value through complex and dynamic exchanges between two or more individuals, groups, or organizations." (Allee, 2003, p.192) Value networks serve as business tools that assist organizations in recognizing relationships, identifying transactions, aligning strategic decisions and communicating complex concepts.

The purpose of adopting a whole system value network view is to illustrate the manner in which key processes and business areas work together (Allee, 2003, p.194). A value network is constructed by identifying areas, within the organization and its external network, that create value through tangible and intangible transactions or exchanges. Each tangible and intangible transaction is then identified and mapped onto the value network. The whole system perspective allows organizations to objectively analyze the flow of knowledge throughout the value network and better understand the "role of knowledge and other intangibles in value creation" (Allee, 2003, p.198). Adopting this modeling process

provides organizations with the opportunity to critically identify value opportunities, align tangible and intangible transactions with value and strategy, and support the business model.

Allee advocates adopting a whole-system view of value. She maintains that value is created through the synergy of business relationships, internal structure, human competence, social citizenship, environmental health, and corporate identity (Allee, 2003, p.164). Business relationships encompass the organization's association with external parties, like customers, business partners, professional associations, and suppliers. An organization's internal structure is defined as their "systems and work processes that leverage competitiveness" (Allee, 2003, p.164), like business models and procedures. The "individual capabilities, knowledge, skills, experience, and problem solving abilities that reside in people" (Allee, 2003, p.164) provide the framework for human competence. Together the business relationships, internal structure, and human competence support the vision and values of the organization's corporate identity; collectively they influence the organization's social citizenship and environmental health. Social citizenship describes the quality and value of the relationship the organization holds with society, through charity and volunteering efforts. An organization's relationship with the environment and its resources is classified as the organization's environmental health. The whole systems view effectively analyses how the organization operates internally and with its external environment.

Allee advocates analyzing the value network by using a three-step process of Exchange Analysis, Impact Analysis, and Value Creation Analysis. The purpose of the Exchange Analysis is to assess the health and sustainability of the value system through the identification of overall patterns of exchanges; the Exchange Analysis identifies patterns of reciprocity, value bottlenecks, tangible and intangible transaction ratios, and system optimization (Allee, 2003, p.201-202). The Impact Analysis determines the costs and benefits of the tangible and intangible transactions for the participants, and their respective impact. Value Creation Analysis "focuses on one Participant at a time, analyzing how each Participant is extending value to other Participants in the system." (Allee, 2003, p.206) The health and sustainability of a value network is determined by the ratio of positive to negative value inputs and outputs; it is crucial that each Participant recognize the positive or negative value created by its inputs and outputs, and how it affects the other Participants and the network as a whole.

Karl Erik Sveiby

Karl Erik Sveiby theorizes that the knowledge economy thrives and is based on the value created by intangible assets. Traditionally, in financial terms, the difference between an organization's book value and market value was defined as "goodwill"; Sveiby attributes the difference to the value created by intangible assets. Sveiby's methodology surrounds identifying three types of intangible assets: Competence, External Structure, and Internal Structure. These assets contribute to an organization's balance sheet and the development and implementation of measures for evaluating organizational growth, efficiency, and stability.

Competence encapsulates the value derived from an organization's human capital. In the knowledge economy, Competence is an organization's most important intangible asset. "Employee Competence involves the capacity to act in a wide variety of situations to create both tangible and intangible assets." (Sveiby, 1997, p.10) Effectively managing and leveraging employee Competence increases an organization's value and competitiveness.

The External Structure encompasses relationships that brand the organization within the industry, and all roles that are involved in this effort. “The External Structure includes relationships with customers and suppliers. It also encompasses brand names, trademarks, and the company’s reputation or image.” (Sveiby, 1997, p.11) The External Structure is a customer-oriented approach to value creation. Value is created through relationships and the exchange of tangible and intangible transactions. Win-win situations are created through the exchange of knowledge and intangibles, like information, trust, feedback, and client referrals. These relationships, with customers, suppliers, and professional associations, are paramount to an organization’s success in the new economy.

The Internal Structure can be classified as the “flow of knowledge within an organization – the patents, concepts, models, and computer and administrative systems that support the professionals who are involved in the knowledge creation process with customers.” (Sveiby, 1997, p.78) The Internal Structure supports the organization’s human capital and External Structure through the creation of processes, implementation of management tools, and support of knowledge professionals. Evaluating the Internal Structure is an important component in identifying and measuring intangible assets.

Sveiby identifies four roles within the organization that contribute to the three types of intangible assets. Sveiby classifies all company employees into four categories: the professional, the manager, the support staff, and the leader (Sveiby, 1997, p.53). Knowledge organizations are reliant on the Competence of professionals and managers as they transfer tacit knowledge through the creation of mentorship learning experiences and relationships, a concept Sveiby refers to as tradition. Professionals generate knowledge and value through their expertise, whereas Managers provide context and resources for others to work towards organizational or project goals. The Support Staff assist the Professionals by increasing the organization’s efficiency and developing a relationship with customers. Leaders develop and execute strategy, inspire the employees and ensure the Professionals are engaged and effectively utilized. Each role plays an important component in the External Structure, Internal Structure, or Competence; the role they play is relative to the structure of the organization.

Traditionally intangible value is only recognized through tangible transactions like the exchange or stock or valuing of a firm. “When the market price is higher than the book value, conventional stock market theory regards the premium as the market’s assessment of future earning potential.” (Sveiby, 1997, p.8) However, this is actually the market’s perception of the value of the company’s intangible assets. Sveiby measures the value of intangible assets through an Intangible Assets Monitor. The Intangible Assets Monitor creates growth, efficiency, and stability metrics for the three types of intangible assets over a minimum of three years. Competency is measured by identifying the education and experience of professionals, the proportion and value of professionals, and the commitment to the organization over a period of years to calculate the growth, efficiency, and stability of the assets respectively. Sveiby measures the growth, efficiency, and stability of the External Structure through profitability and organizational growth, sales statistics, and customer relationships metrics, over a period of several years. The investment in Internal Structure, the proportion and value of Support Staff, and the commitment to the organization are used to measure the growth, efficiency, and stability of the Internal Structure over a period of several years. The value generated by the intangible assets is then tied into the organization’s financial and strategic performance and growth.

Hubert Saint-Onge and Charles Armstrong

Hubert Saint-Onge and Charles Armstrong theorize that in the new economy, the conductive organization will be the ideal knowledge-based entity. The conductive organization will achieve success in the marketplace by aligning its knowledge with five organizational capabilities: strategy, culture, structure, systems, and leadership. Conductive is defined as an ability to “turn information into knowledge that can be acted upon to create value for the customer and the organization.” (Saint-Onge & Armstrong, 2004, p.20) The Conductive organization aligns its strategic capabilities with its internal and external strategy to create a cohesive brand, increase performance, nurture a consistent environment, and develop a customer focus. Knowledge management is seen as an organization’s strategic ability to be responsive to its changing internal and external customer needs.

Saint-Onge and Armstrong have developed The Knowledge Capital Model to manage intangible assets. The Knowledge Capital Model has three main components that create knowledge value: Human Capital, Customer Capital and Structural Capital. Human Capital refers to the individual capabilities of the organization’s employees. Customer Capital encapsulates the relationships an organization’s human capital develops with customers and the value derived from them. Structural Capital refers to the organizational capabilities that provide the platform necessary for the human capital to develop value from customer relationships. Each component offers intangible assets that have the capacity for knowledge creation; the synergy of the three components, Human Capital, Customer Capital, and Structural Capital, creates value through the flow of knowledge.

Organizations exchange explicit and tacit knowledge in the Knowledge Capital Model through the flow of stocks. Stocks are defined as “amount or volume of capital that has been created through generating capabilities.” (Saint-Onge & Armstrong, 2004, p.41) The exchange of knowledge that creates or depletes stocks is considered a flow. (Saint-Onge & Armstrong, 2004, p.41) The type of knowledge being transferred defines the manner in which the capital is transferred; stocks are observable and accessible like explicit knowledge, whereas flows are people-oriented and difficult to quantify. Explicit knowledge is “that component of knowledge that can be codified and transmitted in a systematic and formal language”, (Tiwana, 2002, p.45) such as procedures, documents, databases, and templates. Tacit knowledge is “personal, context specific knowledge that is difficult to formalize, record, or articulate; it is stored in the heads of people”. Experience, intuition, understanding, insights, values, and intelligence are all examples of tacit knowledge. Saint-Onge and Armstrong maintain that a knowledge strategy defines how the organization will facilitate knowledge creation and exchange through the stocks and flows of explicit and tacit knowledge.

Saint-Onge and Armstrong theorize that “generating knowledge capital in an organization depends on the alignment of the organization’s culture to the values of the employees and the expectations of customers (Saint-Onge & Armstrong, 2004, p.46). They advocate measuring Human Capital, Customer Capital, and Structural Capital stocks for their amount and quality, with respect to the context provided by their flows.. They outline metrics like percentage of new ideas that are actually implemented, percentage of penetration and coverage, and revenue per employee to measure the value created by Human Capital, Customer Capital and Structural Capital respectively (Saint-Onge & Armstrong, 2004, p.48). Saint-Onge and Armstrong do not advocate a very comprehensive approach to measuring the value created by Human Capital, Customer Capital and Structural Capital stocks and flows.

The knowledge strategy supports the organization’s customer strategy, organizational strategy, and business strategy by aligning with how the company provides value to its customers, the synchronization

of the organization's five core capabilities, and the organization's strategic intent and imperatives, respectively. (Saint-Onge & Armstrong, 2004, p.77) The knowledge strategy contributes to the character of an organization and to how the organization brands itself to its employees, potential employees, customers, and potential customers. An organization's knowledge strategy is comprised of culture, knowledge architecture, and technology. It is designed to devise a "systematic approach to creating and harvesting the organization's knowledge to reach a higher level of conductivity." (Saint-Onge & Armstrong, 2004, p.91) The employment of a knowledge strategy empowers the employees and the organization as a whole by increasing the accessibility and depth of access to explicit and tacit knowledge. Developing a knowledge-oriented organizational culture that includes values aligned with the organization's goals provides the foundation for the success of the knowledge strategy. Knowledge architecture defines how explicit and tacit knowledge will be accessed, developed, and shared through the technological infrastructure. The technological infrastructure functions as the medium of knowledge for the organization, supporting applications that produce and store knowledge. By creating a knowledge-oriented culture, a knowledge architecture, and a technological infrastructure the organization designs a knowledge structure that supports and is supported by the organization's customer, organizational, and business strategies.

Synthesis

Allee, Sveiby, and Saint-Onge and Armstrong approach knowledge management from similar but unique perspectives. The models that they have created for valuing intangibles incorporate some of the same elements and concepts. This section will compare the theories and tools of Allee, Sveiby, and Saint-Onge and Armstrong with respect to value networks, the three types of intangible assets, the organization's environment, and the development of strategy.

Allee's whole system value network is a progressive way of mapping areas that generate value. Of the theorists compared in this paper, Allee offers the most comprehensive approach for identifying areas internal and external to the organization that generate and receive tangible and intangible transactions. While other theorists touch on value networks as a component of identifying and measuring intangible assets, Allee takes a holistic approach to valuing an organization's knowledge network through the exchange of tangible and intangible transactions. Allee's value network approaches organizations as a living system, providing the foundation and context for the valuing of strategic intangible assets.

Allee, Sveiby, and Saint-Onge and Armstrong unanimously agree that there are three types of intangible assets; however, while the three types encapsulate the same components, each theorist has classified the types differently. The first type of intangible asset encompasses the knowledge and capabilities of an organization's employees, their human capital. The second intangible asset type embodies the relationships an organization has constructed with their external network of clients, suppliers, professional associations, and the industry. The final type of intangible assets is defined by the processes and structures established by the organization to support external relationships and human capital. Intangible assets are a relatively new area of thought and as such, lack established standards of measurement. Three areas remain consistent and prevalent in the influential knowledge management literature: human capital, external relationships, and internal structure. The synergy provided by all three types of intangible assets works together to create and exchange knowledge, supporting the organization's strategy. For the purposes of this paper, knowledge management pioneer Karl-Erik Sveiby's definitions of these three areas, Competence, External Structure, and Internal Structure, will be utilized.

Incorporating the organization's environment into knowledge management theory is a common approach. Saint-Onge and Armstrong take a strategic approach to the organization's environment by considering how environmental factors shape and affect knowledge, customer, organizational, and business strategy. Allee's whole system view of knowledge value incorporates an organization's corporate identity, social citizenship, and environmental health in the evaluation of their three types of intangible assets. While the former theory is important for integrating knowledge strategy with the organization's strategic goals, the latter approaches the organization as a living system. Both theories are valid as they have different focuses and objectives.

Saint-Onge and Armstrong delve the deepest into integrating a knowledge strategy into the organization's strategic goals. They theorize that the knowledge strategy supports the company's customer, organizational, and business strategies by aligning objectives and capabilities. Saint-Onge and Armstrong focus on creating a conducive organization by taking a holistic approach to the development of strategy. Their big- picture view of the integration of knowledge into the strategy development process of organizations surpasses the theories of their counterparts.

Verna Allee Associates, Sveiby Knowledge Associates, and Eurofocus International Consultants Ltd created the GenIsis Workbook to integrate Allee's value network and Sveiby's Intangible Assets Monitor. The GenIsis workbook provides companies with comprehensive steps and worksheets that follow Allee's ValueNet Works™ methodology and incorporate Sveiby's Intangible Assets Monitor tools. The workbook is used by organizations to:

- Identify the organization's structure, strategies, stakeholders, and scope;
- Identify tangible and intangible transactions;
- Undertaking Allee's Exchange Analysis, Impact Analysis and Value Network Analysis;
- Compare the value of competence, internal structure, and external structure knowledge transactions; and
- Link knowledge transactions to strategy.

The GenIsis Workbook illustrates that the theories presented by Allee, Sveiby, and Saint-Onge and Armstrong are intertwined and can be used together to create successful strategies for knowledge organizations.

Application of Knowledge Management Theory

This paper will incorporate elements from Allee, Sveiby, and Saint-Onge and Armstrong's theories. Allee's whole system theories will be utilized to create a value network for The Company. Sveiby's definitions of the three types of intangible assets will be utilized, as will his Intangible Assets Monitor model. The strategic recommendations for The Company will be developed using Saint-Onge and Armstrong's theories for developing knowledge, customer, organizational, and business strategy, as well as Allee's whole-system approach to the environment. The GenIsis Workbook, created by Verna Allee Associates, Sveiby Knowledge Associates, and Eurofocus International Consultants Ltd, was used to construct the various elements of this research. For the purpose of clarification, this paper will use the formerly described theories for Allee's whole system value network approach, Sveiby's theories of intangible assets, and Saint-Onge and Armstrong's four levels of strategy.

Environmental Analysis

The Environmental Analysis provides an overview of the adult education consulting and retail industries in North America, The Company and the relationships that exist. It is important to evaluate The Company as an organization with respect to the industries and environments that it operates in. The Environmental Analysis will provide context for the value network, Intangible Assets Monitor metrics, and the recommendations.

The North American Adult Education Consulting Industry

The structure of the North American Adult Education industry is changing. Industry players are strategically challenging the fragmented structure and as a result, consolidating the industry. Historically, the fragmented adult education industry structure has been characterized with low entry barriers, increased competition, and price competition. Providers are positioning themselves to overcome the challenges of the fragmented industry and increase their market share. The next several years will define the future of each adult education consulting company. To remain competitive in the rapidly consolidating industry adult education providers must grow, either through merger, acquisition, or organic growth.

The North American Adult Education Consulting industry is fragmented, in that there are many providers and none are in a position to dominate the industry. “Many fragmented industries are characterized by low entry barriers” (Hill & Jones, 2001, p.84). Typically a fragmented industry creates a threat rather than an opportunity for providers because it forces price competition. However, the North American adult education consulting industry is a knowledge-based industry. Companies must therefore examine their tangible and intangible assets when developing strategy. A fragmented industry means that the next few years will be defined by mergers and acquisitions. Companies must grow to survive and prosper, and organic growth is the safest kind of growth.

The Retail Industry

The retail industry is competitive. To remain successful, retailers must decrease costs, decrease turnover rates, increase time to market and increase customer satisfaction. Retailers are turning to workplace learning and performance solutions to help them develop and maximize their human capital.

The retail industry uses adult education consulting companies to optimize their workplace learning and performance. Outsourcing this function allows retailers to minimize opportunity and accrued costs while capitalizing on the expertise, economies of scale, and flexibility of the adult education consultants. Focus can then be placed on strategic human resources and positioning the company as an employer of choice through aligned recruitment, retention, compensation, training and development, and succession planning strategies.

The fragmented nature of the adult education consulting industry increases the bargaining power of the retailers. The bargaining power is maximized under the following conditions of a fragmented industry:

- The provider is dependant on the buyer for a large percentage of its total revenue;
- The costs associated with switching providers is low;
- It is economically feasible for the buyer to purchase from several suppliers concurrently; and
- The buyer can threaten to supply their own needs through the vertical integration of the outsourced function.

(Hill & Jones, 2001, p.89)

In a fragmented industry such as this, buyers can be seen as a competitive threat because they threaten the sustainability of the adult education providers.

The retail industry proves to be both an opportunity and a threat to its adult education providers. The industry operates behind the e-learning bell curve. This provides adult education providers with the opportunity to capitalize on reduced technology rates and to learn from the experiences of providers in other industries, like banking and information technology. These opportunities decrease opportunity costs associated with intensive research and development and purchasing or developing new software.

Conversely, adult education providers are limited by the retail industry's position with respect to technology and progressive learning development. These technological infrastructure limitations decrease the adult education provider's ability to present progressive and comprehensive learning solutions to their client's needs. The Company's solutions for their clients are thus restricted by their Information Technology Departments and the respective technological capabilities of each retail store.

The Company

To understand how The Company functions in the retail and adult education industries, it is important to explore its corporate identity, strategy, social citizenship, organizational structure, and current knowledge management practices. These factors provide context for its relationship within the industries. Understanding The Company's current position will assist in the creation of realistic and valid recommendations.

Corporate Identity

The Company is a learning solutions organization focused on retail performance. Its mission is "To re-ignite the human spirit by empowering the workforce with the necessary knowledge to passionately contribute to the bottom line." The Company accomplishes its mission by providing retailers and their vendor communities with custom learning solutions, existing courseware, consulting services, and learning management systems. The Company develops and delivers asynchronous, synchronous and blended learning and performance measurement tools. Through innovative learning solutions they assist their clients in increasing sales, decreasing returns, increasing workforce engagement, decreasing delivery costs, and increasing customer satisfaction and loyalty.

The Company is currently transitioning from an entrepreneurship to a professionally managed organization. The Company's focus has shifted from developing a product or service to satisfy a market need (Flamholtz & Randle, 2000, p.77) to acquiring resources and developing an organizational infrastructure (Flamholtz & Randle, 2000, p.82). The Company has begun to focus on establishing systems and processes, such as its project management process. Organizational communication has increased and remains decentralized. Further dedication needs to be made to human capital management and the strengthening of External Structure and Internal Structure processes to effectively transition to a professionally managed knowledge organization.

At the present time, The Company does not approach strategy from Saint-Onge and Armstrong's four levels of strategy perspective. Rather, The Company focuses on strategy at the business and organizational levels. The Company's organizational goals concerning marketing current and future products and services and outlining a strategy for increasing brand awareness support their business goal to develop a professional marketing plan and provide the foundation for establishing a customer strategy. The Company should evaluate its value network and tangible and intangible assets to identify if

there is an opportunity to leverage current relationships or transactions to create an effective knowledge strategy. An effective knowledge strategy would maximize the utilization of The Company's knowledge framework and support the objectives of their customer, organizational, and business strategies.

In their book, *The Conductive Organization*, Saint-Onge and Armstrong theorize that a successful knowledge organization demonstrates social and ethical responsibility by delivering a consistent branding image to internal and external stakeholders. The Company's organizational goal of outlining a strategy for increasing brand awareness aligns with Saint-Onge and Armstrong's theory that a consistent branding message reinforces the organization's corporate identity and strategy. When creating a plan to increase brand awareness it is integral to ensure that "the experience employees are meant to provide to customers must be akin to the experience they themselves have within the organization" (Saint-Onge & Armstrong, 2004, p.100). The Company should consider the importance of internal and external branding when creating their brand awareness process and examining the value created by the External Structure.

Social citizenship

The Company has created a culture that gives back to society through charity and volunteering. The Company's Social Committee organizes events that support charities. As an organization The Company raises money and gifts for charities several times a year. By integrating social citizenship into its culture, through the Social Committee events, The Company maximizes the quality and value of its relationship with society.

Organizational Structure

The Company's matrix organizational structure encourages communication and collaboration. Their matrix structure is flexible and responsive to changing organizational and competitive needs. Knowledge professionals are empowered through autonomy and top management is enabled to focus on strategic issues (Hill & Jones, 2001, p.403). The Company's five operational areas operate beneath their four Vice Presidents: Vice President of Sales and Marketing, Vice President of Finance and Human Resources, Vice President of Information Technology, and Vice President of Learning and Development Services.

The Company's Operations Team, comprised of the Content Department, the Customer Relationship Management Department, the Creative Department, and the Project Management Department, works in project teams assigned to specific clients and reports through their project teams and through their functional teams. Customer Relationship Managers, from the Sales and Marketing Department, work with their respective account teams to fulfill their clients' needs and function as the main contact with the client group. The Customer Service Department, reporting through the Vice President of Finance and Human Resources, is advised when a project has unique requirements of them.

Knowledge Management

The Company currently engages in the informal access and exchange of knowledge. Explicit knowledge is exchanged through teams and mentorship relationships. Microsoft Sharepoint is used as an information and document management tool but its capacity for knowledge management is not being fully exploited. The Company would benefit from a knowledge strategy and a greater emphasis on strategic knowledge and the value of intangible assets.

The Company's Value Network

The Company's value network (Appendix A) is comprised of three areas: External Structure, Internal Structure and Competence. Identifying the key tangible and intangible transactions of the areas highlights the departments, stakeholders and relationships that increase the network's value. Aligning the value network with the intangible assets monitor will identify areas of excellence and those in need of improvement. This information can be used to increase the value and knowledge-orientation of The Company's organizational strategy. For the purposes of this paper focus was placed on The Company's core processes and intangible transactions.

External Structure

The Company's External Structure is comprised of The Company's clients, Sales and Marketing Department, Board, Professional Associations, Creative Outsourcers, and Content Outsourcers. The Company's three circle weighted score for its External Structure is 62.82% (Appendix B). With 52 tangible transactions and 62 intangible transactions the External Structure is accountable for 49% of The Company's total transactions (Appendix C). 51 of the total transactions are generated by the External Structure and 62 are delivered to the External Structure (Appendix C). The External Structure contributes significant value to The Company's network. Effectively managing and leveraging the External Structure will ensure the future growth and success of the organization.

Clients

Retail industry clients play a significant role in The Company's value network. Tangible and intangible transactions create value for both the client and company through the exchange of products, expertise, loyalty and feedback. Cultivating and maintaining a fruitful relationship increases the benefits received by both stakeholder groups.

Clients engage in fifteen tangible transactions within all three areas of the value network: Internal Structure, External Structure and Competence (Appendix D). Within the External Structure, clients receive the project charter, project plan, and final product from the Sales and Marketing Department and provide project charter signoff, project plan signoff, and final product approval in return (Appendix E). Clients are invoiced by the Finance Department and in return they provide the department with sales orders and payment (Appendix E). The Content Department produces the project content for the client's approval and distributes the approved content for French content translation (Appendix E). The client generates the project content approval and the French content translation for the Project Management Office and the Content Department, respectively (Appendix E). All levels of the client's organization generate customer service inquiries for and receive customer service from The Company's Customer Service Department (Appendix E). With eight outgoing tangible transactions and seven incoming tangible transactions clients contribute significantly to the value network (Appendix D).

Significant value is derived from the client's position within The Company's value network, with respect to intangible transactions. The strength of the External Structure can be attributed to the successful relationship between the Sales and Marketing Department and their clients. The Sales and Marketing Department cultivates the client relationship by providing product information in exchange for client requirements (Appendix E). Successfully managed client relationships create committed, loyal client champions that provide The Company with valuable referrals and feedback (Appendix E). The informal relationship between clients and the Customer Service Department provides The Company with a source of feedback and trust (Appendix E). The Creative and Content Departments provide the

clients with expertise (Appendix E). The Content Department provides free research to The Company's clients (Appendix F). Clients represent 31% of the External Structure's intangible transactions, with seven outgoing transactions and four incoming transactions (Appendix D).

Sales and Marketing Department

The Sales and Marketing Department is the primary liaison between the client and The Company's client team. Value is generated through nine incoming and four outgoing tangible transactions (Appendix D and Appendix G). Six tangible transactions of the thirteen transactions are exchanged between the Sales and Marketing Department and their clients; the department provides their clients with the project charter, project plan and final project and in return receives approval for each of the respective transactions (Appendix H). The Sales Department creates the sales order for the Finance Department to commence the project (Appendix H). The Creative Department and Content Department each provide the Sales and Marketing Department with the project design for the project plan (Appendix H). The project timeline is provided by the Project Management Office (Appendix I). The Quality Management Department produces a project quality assurance document (Appendix J). The Board and the Customer Service Department offers the Sales and Marketing Department the corporate strategy and customer service reports respectively (Appendix H). The Sales and Marketing Department generates four tangible transactions and receives seven tangible transactions (Appendix D). An incoming to outgoing tangible transaction ratio of 7:4 indicates that more value is generated from the rest of the value network than from the Sales and Marketing Department (Appendix D).

Intangible value is created through nineteen transactions (Appendix D). The Sales and Marketing Department performs six intangible transactions with The Company's clients; the department provides the client with product information and in return receives the feedback, referrals, and the client's commitment, loyalty, and requirements (Appendix H). The Sales and Marketing Department engages in reciprocal informal communication with the Content Department, Creative Department, Quality Management Department, and the Project Management Office (Appendix H). The department offers the Board commitment and feedback in exchange for their implicit responsibility (Appendix H). Value contribution from this department is significant and is weighted heavily on incoming intangible transactions, with an incoming to delivered intangible transaction ration of 12:7 (Appendix D).

The Board of Directors

The Board of Directors is comprised of seven members, four of which serve as Vice Presidents representing The Company's five different areas. Within the five areas the following nine departments are represented in The Company's value network: Sales and Marketing Department, Customer Service Department, Project Management Office, Information Technology Department, Human Resources Department, Finance Department, Quality Management Department, Creative Department and Content Department (Appendix K). Nine tangible transactions share the Board's organizational strategy with the rest of the company (Appendix L); the strategy and key decisions are communicated through the respective Vice Presidents and the Leadership Team, a team comprised with representatives from the Sales and Marketing Department, Information Technology Department, Content Department, Creative Department, and the Project Management Office (Appendix K). The Board offers implicit responsibility to its nine departments and in return receives communication and feedback (Appendix L). The relationship between the Board and the organization's departments increases the buy-in for strategic initiatives and contributes to a culture that encourages communication and collaboration.

The Board engages in seventeen tangible transactions, with The Company's departments and External Structure members (Appendix D). The Board generates ten tangible transactions; sponsorship is delivered to Professional Associations, like the Canadian Society for Training and Development (CSTD) and the American Society for Training and Development (ASTD), and strategy is delivered to the nine departments (Appendix L). Professional Associations provide the Board with events that facilitate knowledge sharing, exposure to the market, and opportunities for branding (Appendix M). The Board receives the budget and the company policies from the Finance Department and Human Resources Department respectively (Appendix L). The Information Technology Department provides the Board with LMS design, application design, LMS support, and application support (Appendix N). With ten outgoing tangible transactions and seven incoming transactions it is evident that the Board has established sufficient relationships within the network to generate value (Appendix A).

20% of the network's total intangible transactions involve the Board (Appendix O). The Board is the recipient of eighteen transactions and the distributor of ten transactions (Appendix D). As previously mentioned, the Board receives commitment and feedback from all nine departments in exchange for implicit responsibility (Appendix L). The Board supports Professional Associations through gratis sponsorship of their initiatives and contribution to the industry (Appendix L). The Board offers the greatest contribution to the value network, in terms of total intangible transactions (Appendix O).

Professional Associations

Professional Associations, like the ASTD and the Retail Council of Canada (RCC), provide professionals and organizations with information on industry trends, opportunities for networking and exchanging knowledge, and relevant training and development events. The greatest tangible transactions that Professional Associations can offer companies are knowledge sharing events such as conferences, seminars, and webinars (Appendix M). The Company offers Professional Associations, like the Retail Council of Canada, tangible and intangible sponsorship (Appendix M). The Content Department offers Professional Associations their participation in the form of event attendance, networking, and formal communication. Currently Professional Associations offer value to the network and the opportunity to increase future tangible and intangible value through the development of mutually beneficial relationships.

Creative Outsourcers

Creative Outsourcers enable The Company to be responsive to the changing needs of clients. Creative Outsourcers take on projects as a resource or as an expert, depending upon the situation and the capabilities of the Outsourcer. They engage in two tangible transactions and one intangible transaction (Appendix D). Creative Outsourcers receive the project creative design requirements from the Project Management Department and provide project creative design in return (Appendix P). The Creative Team benefits from the expertise of the Creative Outsourcers (Appendix P). While the contribution of the Creative Outsourcers to the value network is minimal, they are a necessary component as they enable the flexibility and responsiveness of the organization.

Content Outsourcers

Like the Creative Outsourcers, the Content Outsourcers play a crucial role with respect to the organizational strategy while contributing minimal value to the network. The Content Outsourcers engage in transactions exclusively with the Content Department (Appendix A). In exchange for the project content requirements the Content Outsourcers provide the Content Department with project

content and expertise (Appendix Q). The Company's ability to handle flexible content requirements can be attributed to the two tangible transactions and one intangible transaction generated by the Content Outsourcers' relationship with the Content Department.

Internal Structure

The Company's Internal Structure is comprised of The Company's Project Management Office, Quality Management Department, Finance Department, Human Resources Department, and Customer Service Department. The Company's three circle weighted score for its Internal Structure is remarkable low, at 16.19% (Appendix B). With 25 tangible transactions and 31 intangible transactions (Appendix D) the Internal Structure is accountable for 24% of The Company's total transactions (Appendix O). 27 of the total transactions are generated by the Internal Structure and 29 are delivered to the Internal Structure (Appendix C). The Internal Structure contributes limited value to The Company's network. Reviewing the transactions and relationships of the Internal Structure will be a necessary aspect of developing and growing the organization.

Project Management Office

Assuming the role of managers within a knowledge-based organization the Project Management Office (PMO) undertakes the responsibility of managing the budgets, schedules and resources for client team projects. The Project Management Office generates the greatest number of tangible transactions within The Company's Internal Structure, due to its project coordination role (Appendix O). In the project workflow process, the PMO is responsible for using core project management methodology to provide the Sales and Marketing Department with the project timeline and liaising between the Creative Department and the Creative Outsourcers to facilitate the delivery of the project's Creative Design Requirements and Creative Design. With seven tangible transactions and a tangible transaction ratio of 4:3, this department contributes the greatest amount of value to the Internal Structure (Appendix D).

The Project Management Office engages in the most intangible transactions, relative to the departments that comprise The Company's Internal Structure. Communication is a reciprocal transaction between the Project Management Office and the respective client team members in the Content, Creative, and Sales and Marketing Departments (Appendix I). The PMO takes on the project management function, providing the Sales and Marketing Department with project ownership (Appendix I). The PMO offers the Board of Directors commitment and feedback (Appendix I). As a member of the Leadership team, the Project Manager represents the PMO to the Board of Directors and provides feedback on strategy and initiatives (Appendix I and Appendix K). The Board assumes implicit responsibility for success of The Company, and as a result the Project Management Office. The Project Management Office represents 21% of the Internal Structure's intangible assets (Appendix O), with a total of ten intangible transactions and an intangible ratio of 2:3 (Appendix D).

Quality Management Department

The Quality Management Department maintains the quality and integrity of all materials through six tangible transactions (Appendix D). The Quality Management Department receives the project content, project creative design, and company strategy from the Content and Creative Departments and the Board of Directors respectively (Appendix J). The project content and creative design are then carefully checked for quality and integrity before the Quality Management Department provides the Content, Creative, and Sales and Marketing Departments with Project Content Quality Assurance, Project Creative Design Quality Assurance, and Project Quality Assurance, respectively (Appendix J). The

nature of the Quality Management Department's transactions contributes significant value to the organization's value network.

The Quality Management Department engages in intangible transactions with the Board of Directors, Content Department, Creative Department, and the Sales and Marketing Department. Reciprocal communication and intangible transactions are present between the Quality Management Department and the Content, Creative and Sales and Marketing Departments (Appendix J). The Quality Management Department is provided implicit responsibility by the Board of Directors and in return offers commitment and feedback (Appendix J). Value contribution generated from this department is moderate, with respect to the other departments.

Finance Department

Minimal value is created by the Finance Department's limited number of tangible and intangible outward-bound transactions. The Finance Department receives more tangible transactions, in the form of strategy, sales orders and payment, than it produces for its network. An annual budget and invoices are tangible transactions from the Finance Department to the Board and clients respectively (Appendix R). The Finance Department is involved in a total of six tangible transactions and has a 2:1 ratio of incoming to outgoing transactions, the highest ratio in the organization (Appendix D). As such, its value contribution to the network, with respect to tangible transactions, is nominal.

The Finance Department exclusively engages in intangible transactions with the Board of Directors (Appendix A). Like the rest of the organization, the Finance Department supports the Board of Directors through two intangible transactions: commitment and feedback (Appendix R). Similarly, the Board of Directors also assumes implicit responsibility for the Finance Department as an intangible transition (Appendix L). Along with the Human Resources Department, the Finance Department contributes the least amount of intangible transactions within the organizational structure.

The Finance Department is solely staffed by the Vice President of Finance and Human Resources and an Office Manager. Merging two separate functions of an organization strains the departments' resources and minimizes their value contribution to the organization. It is evident that the Finance Department and Human Resources Department need to realign themselves within the organization to successfully contribute to The Company's value network.

Human Resources Department

The Human Resources Department engages in the least number of tangible transactions, both within the Internal Structure and within the organization as a whole (Appendix O). The department provides the Board of Directors with policies and receives the organization's strategic objectives in return (Appendix S). With two tangible transactions and a 1:1 tangible transaction ratio (Appendix D), the Human Resources Department offers the least amount of value to The Company's network.

Like the Finance Department, the Human Resources Department exclusively participates in intangible transactions with the Board of Directors (Appendix A). The Board provides the Human Resources Department with implicit responsibility and in return the Human Resources Department offers the Board commitment and feedback (Appendix S). The Human Resources Department, along with the Finance Department, participates in the least amount of intangible transactions, both within the Internal Structure and the organization as a whole.

Customer Service Department

The Customer Service Department is a component of the Internal Structure that engages in transactions with External Structure roles. They are considered members of the Internal Structure because of their position within the organization. Reporting through the Vice President of Finance and Human Resources, the Customer Service Department is segregated from the rest of the client team functions and therefore is regarded as more of a support function instead of a strategic component of the client relationship (Appendix K). This position and its relationship with clients could be leveraged more effectively if it was realigned within the organizational structure, as a component of operations, to reflect its contribution to the value network.

The Customer Service Department engages in transactions solely with members of the External Structure. The Customer Service Department provides tangible transactions to Clients and the Sales and Marketing Department, in the form of Customer Service and Customer Service Reports respectively (Appendix T). Clients generate tangible transactions in the form of customer service inquiries and the Board of Directors provides the Customer Service Department with the organization's strategy (Appendix L). The Customer Service Department contributes minimal value to the network in its current role within the organizational structure. It is theorized that greater value could be generated if the department were realigned to work as a component of the team function within the operation division.

Generating 16% of the Internal Structure's intangible transactions (Appendix O), the Customer Service Department interacts with the Sales and Marketing Department, the Board of Directors and the clients. The department receives two intangible transactions from The Company's clients: trust and feedback (Appendix T). The Board of Directors provides the department with the corporate strategy and in return is offered feedback and commitment (Appendix L). The Customer Service Department offers the Sales and Marketing Department the feedback with respect to the success of their client projects (Appendix T). The Customer Service Department is successful in providing the External Structure with intangible value.

Competence

The Information Department, Creative Department, and Content Department account for The Company's Competence. The Competence, or human capital, knowledge flows have been identified as 80% with respect to knowledge of area (Appendix B). 26% of the network's total transactions can be attributed to the Information Technology, Creative and Content Departments (Appendix O). Competence participates in 27 tangible and 34 intangible transactions, of which 35 are generated by the Information, Creative, or Content Departments and 26 are provided to the Competence departments (Appendix D). Human capital, or Competence, has the largest weighted knowledge flows and the second largest number of transactions. Understanding the transactions and knowledge provided by the Information, Creative and Content Departments is an integral component of developing a knowledge-oriented strategy.

Information Technology Department

The Information Technology Department creates value for the network through its expertise in the design of learning management systems and applications. The Company's ability to create performance-driven, learner-centric applications and learning environments distinguishes The Company from its

competitors. The Information Technology Department creates the technology that supports the business, generating progressive products and meeting changing customer needs. The Company's ability to tailor websites, learning environments, and applications to meet their clients' unique needs is a competitive advantage.

The Information Technology Department creates applications and learning management systems for the Board of Directors, in coordination with the other departments. They provide the Board with four tangible transactions; these transactions are learning management system design, learning management system support, application design, and application support (Appendix N). The Board provides the department with the organizational strategy that their products support (Appendix L). Aligning their efforts and tangible transactions with the growth and strategy of The Company exemplifies that the Information Technology Department contributes significant value to the network.

The Information Technology Department engages in five intangible transactions, with members of the External Structure and Human Competence sections. The department increases the value of the network by sharing their expertise and knowledge with the other members of the Competence section, the Content Department and the Creative Department (Appendix N). The Company's Board of Directors takes implicit responsibility for the success and direction of The Company and in return the Information Technology Department offers their commitment and feedback (Appendix N). With an intangible transaction ratio of 1:4 the Information Technology contributes more intangible value to the network than it receives from the other areas (Appendix D).

Creative Department

The Company produces training courses, websites with applications, and applications with web components. The Creative Department is responsible for creating the design and feel of the products and providing the front-end design and development. The Creative Department uses its knowledge and expertise to deliver training material to Retail Associates, to create user-friendly applications, learning environments and web components, and to assist vendors in positioning their products in the market and to Store Associates. The Creative Department is comprised of client-facing Creative Leads and specialists.

The Creative Department engages in nine tangible transactions, with the Content Department, Project Management Office, Quality Management Department, Sales and Marketing Department, and the Board (Appendix U). The Creative Department and the Content Department offer each other the project creative design and the project design and French content translation, respectively (Appendix U). After consulting with the Content Department the project creative design is provided to the Sales and Marketing Department through the project plan (Appendix U). Project Creative Design Requirements are provided to the Project Management Office which liaises with the Creative Outsourcers and, in return, provides the Creative Department with the project creative design (Appendix I). After reviewing the project creative design, the Creative Department distributes it to the Quality Management Department for quality assurance (Appendix U). The Board shares the organizational strategy with the Creative Department (Appendix L). The Creative Department provides significant value to The Company's process and the network as a whole.

Content Department

The Content Department generates 46% of the Competence transactions (Appendix O), with thirteen tangible and fifteen intangible transactions (Appendix D). The Content Department is a client-facing role that contributes expertise to the project and client relationship. The Content Department exhibits expertise in the areas of client knowledge, industry knowledge, and adult education and instructional design knowledge. In collaboration with the other departments, the Content Department is responsible for designing projects, courses, and learning environments that maximize retail performance through the development of their human capital.

Significant value is created by the Content Department's thirteen tangible transactions (Appendix D). The department receives the project creative design from the Creative Department and provides the Quality Management and Sales and Marketing Departments with the project content and the project design, respectively (Appendix F). The Quality Management Department provides quality assurance (Appendix J). Content Outsourcers provide the Content Department with the project content after they receive the requirements (Appendix Q). Clients are provided with the project content and the French content translation and provide the Content Department with French content translation (Appendix E). The Content department provides the Creative Department with the project content design and the French content translation (Appendix F). The department interacts with the External Structure by contributing to Professional Associations through participation and receiving the strategy from the Board (Appendix F). More tangible value is created by that delivered to the Content Department, as evident by the tangible transaction ratio of 5:8 (Appendix D).

Intangible transactions leverage the Competence of the Content Department to create value for the network. The Content Department delivers value to the External Structure by providing expertise and free research to their clients and commitment and feedback to the Board (Appendix F). The Board assumes implicit responsibility for the success of the Content Department and the organization as a whole (Appendix L). Reciprocal informal communication assists in transferring knowledge and information between the Content Department and the Creative Department, Project Management Office, Quality Management Department, and the Sales and Marketing Department (Appendix F). The Information Technology Department and Content Outsourcers provide the department with expertise (Appendix F). The Content Department contributes significant value to the network through fifteen intangible transactions (Appendix D).

Intangible Assets Monitor

The Intangible Assets Monitor presents an overview of the organization's capabilities with respect to intangible assets. Indicators of growth and renewal, efficiency, and stability are used as measurement indicators across the three areas of intangible assets: Competence, External Structure, and Internal Structure (Appendix V). These measurements provide the basis for the development of knowledge-oriented organizational strategy.

Competence

Consistent growth has been exhibited by The Company's human capital over the last three years in the areas of education and experience. The level of education possessed by professionals increase by approximately 25% each year, over the three year period, for a total gain of 58% (Appendix V). Consistent with the increase exhibited in educational growth, the number of years of professional experience also increased dramatically between 2003 and 2005. Professional experience increased 119%

over a three year period (Appendix V). The experience and education of The Company's human capital shows promising growth and can be leveraged for future success.

The Company can be regarded as a fairly efficient organization. Professionals account for approximately 50% of The Company's employees, a number that remained fairly consistent over the past three years (Appendix V). Value added per professional increased \$74,000 over a period of three years to \$168,182/professional (Appendix V). This is equivalent to a 79% increase in value added per professional (Appendix V). Maintaining a consistent proportion of professionals while increasing the value added by each professional by 79% indicates that The Company's human capital operates efficiently (Appendix V).

Turnover rate and seniority were identified as appropriate measures of the stability of The Company's human capital. Seniority, or average years of service, showed a steady increase of 45% over the past three years, increasing from an average length of service of 1.33 to 1.93 years (Appendix V). The organization experienced a significant decline in the turnover rate of professionals over the last three years. The average turnover rate decreased from 0.27 to 0.05, a decrease of 81% (Appendix V). The increase in overall seniority and the decrease in turnover rate confirm the stability of The Company's professionals.

External Structure

The Company's growth appears to be at the expense of its efficiency. Over the last three years The Company has experienced an organic sales growth of 81%, from 1.38 to 2.50 (Appendix V). However, this growth is not echoed in the profit per customer metric. In fact, a decrease of 44%, from 0.09 to 0.05, was observed when measuring The Company's profit per customer, as a function of operating margin/number of customers (Appendix V). This indicates that The Company's profit margins are decreasing. Decreased profit margins do not inspire confidence in the External Structure's capacity for growth; profit margins will need to be reviewed and a strategy will need to be established prior to implementing any aggressive growth strategies.

The External Structure's efficiency, measured by sales per customer, has modestly increased over the last three years. In 2003 The Company realized annual sales of \$345,333 per customer (Appendix V). This measurement decreased to \$246,667 per customer in 2004 before increasing to \$370,000 per customer in 2005 (Appendix V). The mediocre increase of 7%, from 2003 to 2005, indicates a nominal amount of efficiency within the External Structure (Appendix V). It is important that The Company consider the External Structure's efficiency when developing future organizational strategy.

The stability of the External Structure is measured by the devoted customer ratio. The devoted customer ratio identifies the percentage of total sales that can be attributed from customers that have been with the organization for greater than five years. Having been established in 1998, The Company can still be regarded as a relatively young company. As such, 2005 was the first year that the devoted customer ratio was greater than 0 (Appendix V). In 2005, 18% of total sales could be attributed to devoted customers (Appendix V). It is evident that with each passing year this ratio will increase. Therefore, the stability of the External Structure shows promise.

Internal Structure

The Company's Internal Structure has experienced growth over the past three years. Customers contributing to the Internal Structure have increased from 33% to 50% over three years, signifying that 50% of The Company's projects or accounts contribute to The Company's assets (Appendix V). Investment in Internal Structure has increased 900% in the last three years, from a 1% investment of annual sales to a 10% investment (Appendix V). The Internal Structure is evidently capable of growth.

The efficiency of The Company's current Internal Structure can be improved. The proportion of support staff to total staff has increased by 50%, from .18 to .27, indicating that The Company has increased the number of support staff members and that the efficiency of support staff may have decreased over time (Appendix V). The increased number of sales per support staff member, from \$518,000 to \$616,667 over three years, indicates that sales is growing at a disproportionate rate to the recruitment of additional support staff (Appendix V). While the Internal Structure may be able to support The Company's current sales, these metrics indicate a potential instability in the Internal Structure and lack of overall efficiency.

The stability of The Company's Internal Structure has increased over the last three years. The number of employees with less than two years of service has decreased 75%, from 0.91 to 0.23 (Appendix V). Employees that have less than two years of experience with the organization threaten the stability of the Internal Structure, as they are susceptible to increased turnover rates. The increased stability of the Internal Structure shows promise for the future growth of the organization.

Intangible Assets Monitor Limitations

In the future it would be advantageous for The Company to analyze the tangible assets of the organization with respect to their financial implications on The Company's book value and market value. Conducting an assessment of the organization's tangible assets and comparing the results with the results of the intangible asset metrics relates the results to the success and growth of the business. Assessing The Company's tangible financial performance by reviewing sales, operating margins, retained earnings, market value and book value over a period of three years or greater would provide comprehensive results to compare against and leverage the intangible assets results. For the purposes of this paper, The Company's financial statements were not available and thus, this analysis could not be completed.

Recommendations

The recommendations in the paper are based on the synthesis of the value network and the Intangible Assets Monitor metrics. Knowledge management theory and the Environmental Analysis provide context for the synthesis. The recommendations are structured into two sections: intangible assets synthesis and strategy.

Intangible Assets Synthesis

The value and potential of The Company's intangible assets are identified when the value network and Intangible Assets Monitor results are synthesized. Analyzing the metrics with respect to the environmental analysis and knowledge management theory will provide greater context for the synthesis. The results of the synthesis of intangible assets should be considered when The Company creates their knowledge, customer, organizational, and business strategies.

External Structure Synthesis

The Company's External Structure has the value network necessary to support its essential development. While The Company's External Structure is accountable for 49% of the network's total tangible and intangible transactions (Appendix O), it has experienced decreased profit margins, nominal efficiency increases, and promising stability metrics (Appendix V). The Intangible Assets Monitor metrics fall short of the expectations set by the External Structure's outstanding contribution to the value network. The Company needs to focus on increasing the growth and efficiency metrics of its External Structure. It is recommended that The Company further evaluate the value it provides to customers relative to the financial tangibles and intangibles it receives, create a customer strategy that focuses on internal and external branding, and focus on increasing its profit margin and the efficiency of its relationships and processes.

Internal Structure Synthesis

The Company's Internal Structure is capable of supporting growth but requires support to increase its efficiency and the value it contributes to the network. Departments within the Internal Structure have increased their stability over time but have experienced a decrease in efficiency (Appendix V). Strengthening these metrics is essential to the success of The Company's growth over the next several years, as "a company must have an infrastructure that will absorb that growth" (Flamholtz & Randle, 2000, p. 67). Currently, the Internal Structure contributes the least amount of transactions and value to the network (Appendix C); the organizational structure and Intangible Assets Monitor metrics need to be incorporated into future growth strategies to increase the value contributed by the Internal Structure and mitigate risk associated with growth. It is recommended that The Company further review the value created by the Internal Structure and The Company's organizational structure.

Competence Synthesis

Competence is The Company's strongest area in terms of value and Intangible Assets Monitor metrics. Competence contributes the second largest number of transactions to the value network and has the largest weighted knowledge flows (Appendix B and Appendix C). It effectively supports growth and is both efficient and stable. Consistent educational and experiential growth and a value increase of \$74,000 per professional over a period of three years in combination with a consistent proportion of the total number of staff indicates that Competence is a strength that needs to be tapped for future growth strategies (Appendix V). It is recommended that future knowledge strategies leverage the value created by the Information Technology, Creative and Content Departments to realize growth, increase value, and obtain organizational success.

Strategy

It is recommended that The Company develop knowledge and customer strategies to complement its organizational and business strategies. The Company should incorporate the value network and Intangible Assets Monitor results into a knowledge strategy that focuses on leveraging the value created by the exchange of tangible and intangible assets for growth and success. The customer strategy should focus on delivering value to customers through products, services, knowledge, and intangibles. In synthesizing the strategies to focus on effectively branding strategic knowledge management, The Company will create consistency between its strategies and internal and external corporate identity and image.

Knowledge Strategy

The Company's knowledge strategy should focus on leveraging the value of its Competence, increasing the profitability and efficiency of its External Structure, and redesigning the Internal Structure to maximize knowledge creation and efficiency. The Company needs to leverage the knowledge created by Competence to increase the efficiency of the External and Internal Structures. Further, processes for accessing and exchanging knowledge need to be established. The External Structure needs to increase the value derived from its transactions. Processes need to be established to increase efficiency and support the attainment of higher profit margins and tangible growth. While The Company and the Internal Structure have experienced growth, it is evident from the organizational structure (Appendix K) that this growth has not been echoed in the Human Resources or Finance Departments. This creates an opportunity for improvement. Separating the departments and increasing the number of employees in each would increase the value created by the departments and prepare them to support future organizational growth. It is recommended that The Company create a knowledge strategy that outlines an approach for exchanging knowledge, increasing the efficiency of the External Structure's transactions, and realigning the Internal Structure to increase its value to the network.

The Company needs to commit to the technology needed and establish the parameters required to access and exchange knowledge. There are three dimensions to knowledge management technology: information and documentation management, business intelligence, and online communities of practice. Information and document management systems such as Microsoft Sharepoint and Hummingbird are used primarily for document and records management, offering minimal collaboration opportunities. Unlike Sharepoint, Hummingbird offers an information search component that supports basic knowledge management. Business intelligence systems such as Cognos and Siebel support strategy and performance management through the delivery of information, a holistic approach to business performance, and support for performance effectiveness and growth. Online communities of practice software such as Tomoye are designed to support knowledge organizations in the creation of online communities that span geographic and organizational boundaries. It is recommended that The Company optimize the use of its current information and document management system, Sharepoint. At its current growth stage, The Company needs to optimize the performance of its Sharepoint system before moving to a business intelligence system. Existing information and document management systems need to be optimized, using the minor community of practice capabilities possessed by Sharepoint.

The Company needs to reevaluate the value it derives from the transactions and current processes operating within its External Structure. The potential of the External Structure's value network is unfulfilled in terms of efficiency and growth (Appendix V). Each transaction needs to be carefully evaluated from a value creation perspective to objectively determine its contribution to the External Structure's growth, efficiency, and stability. The External Structure should reevaluate the effectiveness of its processes and consider capitalizing on the knowledge created by the Information Technology, Creative and Content Departments. Alternatively, the process used to access and exchange knowledge within the External Structure could be remodeled, based on the process used in The Company's Competence section.

To increase the value generated by the Finance and Human Resources Department, this paper recommends creating a clear separation between the two by using separate reporting structures. Prior to realizing their goal of growth, The Company must "invest in building the required infrastructure before

it is actually necessary [as] it is very difficult, and sometimes impossible, to play catch-up with organizational infrastructure” (Flamholtz & Randle, 2001, p.67). The current structure is not conducive to growth, as the Vice President of Finance and Human Resources and subordinate staff have split their focus between two functional areas (Appendix K). This has decreased the number of tangible and intangible transactions produced by each department. The potential of the Human Resources and Finance Department cannot be effectively realized if the resources required for success are not provided. Additional employees, clearly defined tangible and intangible transactions, and efficient processes are required to support the attainment of the previously outlined business and organizational goals and the increase of value contributed to the network.

Customer Strategy

It is recommended that The Company establish a customer strategy that focuses on delivering tangible and intangible value. The customer strategy should identify how The Company will be branded externally and internally, the tangible and intangible transactions delivered at each level of customer relationships, and the value that will be associated with each product, service, interaction, and intangible. Developing a customer strategy will enable The Company to use the value network to redefine how value will support growth, efficiency, and stability and establish the branding of The Company as a knowledge organization.

Organizational Strategy

The Company has already sufficiently established its organizational strategy priorities that support its 2006 business strategy. The established strategies align with the growth of the organization, but need to be approached from a strategic knowledge management perspective. Viewing and branding The Company as a knowledge organization requires The Company to further define and expand its current and future organizational goals. The Company must develop a comprehensive human capital management strategy and recognize the importance of the value network to optimize the success of its current and future organizational goals.

Developing comprehensive human capital management strategies is essential for The Company to succeed in an economy that competes on the basis of knowledge. Human capital is a source of competitive advantage, as it provides the foundation for success in the new economy. Investing in and leveraging The Company’s human capital ensures the potential for knowledge creation and management is infinite. Unlike tangible assets, knowledge does not disappear when it is sold. Rather, it appreciates (Sveiby, 1997, p.23). The Company’s ability to harness the capacity of its human capital will translate into organizational growth. As such, “recruiting new employees is management’s most important investment decision and perhaps its most important strategic tool.” (Sveiby, 1997, p.66-67) Recruiting, retaining and developing knowledge workers is integral to an organization’s success in the new economy, as companies are competing for professionals as competitively as they compete for customers. “Employees’ salaries are less important than the knowledge they generate, and the customers they bring to the organization. It thus makes sense to see an employee as a generator of revenue rather than as a cost.” (Sveiby, 1997, p.66-67) Approaching human capital as an intangible asset worthy of development is a mindset consistent with the knowledge economy.

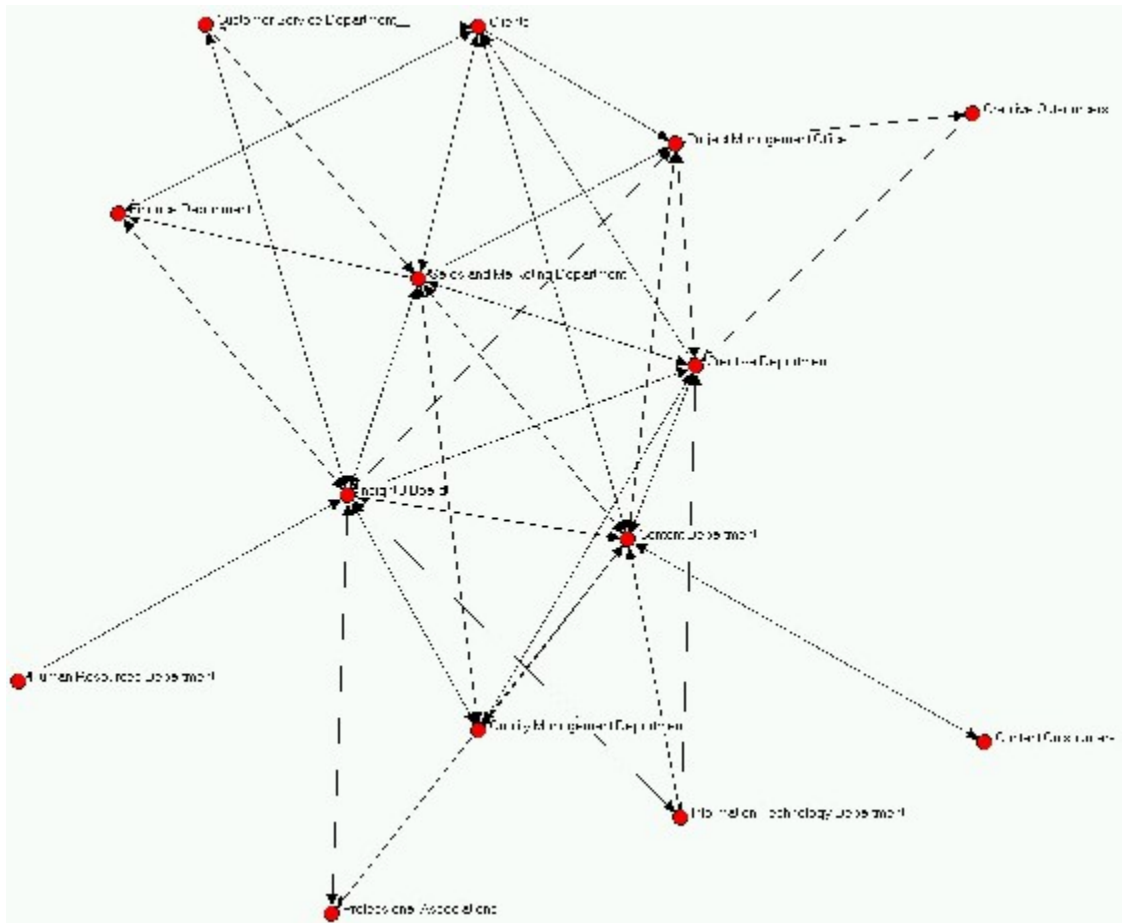
As a knowledge organization, The Company must recognize the importance of adopting a value network approach. A holistic, value network approach considers the departments and roles within an organization, as well as suppliers, clients, professional associations, competitors, and strategic partners

as an overarching system of influence. Projecting a consistent branded message to all members of the network is a function of the transparency and conductivity required of knowledge organizations. Hubert Saint-Onge and Charles Armstrong maintain that “generating knowledge capital in an organization depends on the alignment of the organization’s culture to the values of the employees and the expectations of customers.” (Saint-Onge & Armstrong, 2004, p.45-46) Therefore it is essential to align an organization’s strategy with all facets of the value network to ensure that a consistent image is projected through all interactions. Maintaining consistency across interactions will ensure that the relationships that customers, professional associations and employees have with the respective organizational departments reflect The Company’s organizational and knowledge strategy.

Business Strategy

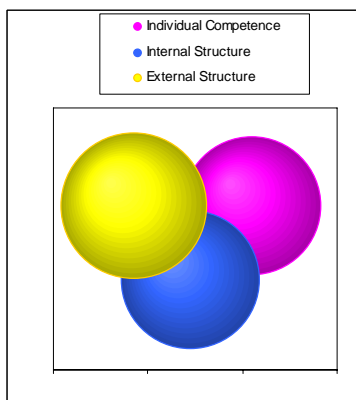
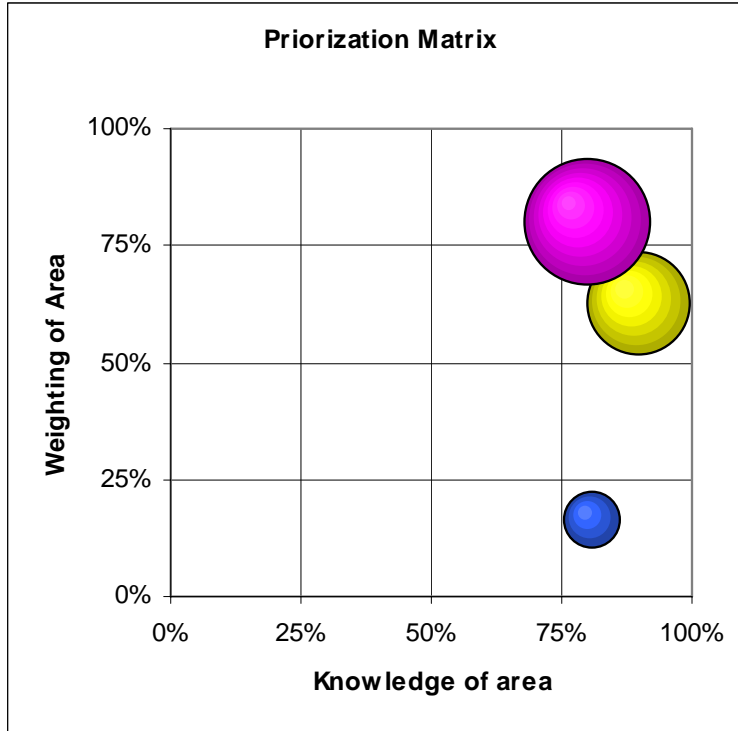
The Company has an established business strategy that is clearly supported by its organizational strategy. While the essence of the strategy does not need to be altered, it should be reviewed from the perspective of a knowledge organization. This paper has outlined intangible values and metrics that were not considered in the current tangible-focused business strategy. It is recommended that The Company review how the value created by intangible assets can be leveraged for business success and strategic knowledge management.

Appendix A: The Company's Value Network



**Appendix B:
GenIsis 3 Circle Analysis**

	Score	Weighted Score
Tangible Assets	84.85%	N/A
External Structure	89.74%	70.00%
Internal Structure	80.95%	20.00%
Individual Competence	80.00%	100.00%
Average	83.89%	190.00%



Appendix C:

Group Value Network Metrics

Group	Tangible				Intangible				Total		
	In	Out	Ratio (In/Out)	Total	In	Out	Ratio (In/Out)	Total	In	Out	Ratio (In/Out)
Competence	11	16	11:16	0.69	15	19	15:19	0.79	26	35	26:35
External Structure	27	25	27:25	1.08	35	26	35:26	1.35	62	51	62:51
Internal Structure	14	11	14:11	1.27	13	18	13:18	0.72	27	29	27:29

Appendix D:
Value Network Metrics

Group	Intangible Classification	Tangible				Intangible				Total		
		In	Out	Ratio (In:Out)	Total	In	Out	Ratio (In:Out)	Total	In	Out	Ratio (In:Out)
Content Department	Competence	5	8	5:8	0.63	7	8	7:8	0.88	12	16	3:4
Creative Department	Competence	5	4	5:4	1.25	7	7	1:1	1.00	12	11	12:11
Information Technology Department	Competence	1	4	1:4	0.25	1	4	1:4	0.25	2	8	1:4
Clients	External Structure	7	8	7:8	0.88	4	7	4:7	0.57	11	15	11:15
Content Outsourcers	External Structure	1	1	1:1	1.00	0	1	0:1	0.00	1	2	1:2
Creative Outsourcers	External Structure	1	1	1:1	1.00	0	1	0:1	0.00	1	2	1:2
Board	External Structure	7	10	7:10	0.70	18	10	9:5	1.80	25	20	5:4
Professional Associations	External Structure	2	1	2:1	2.00	1	0	0:1	0.00	3	1	3:1
Sales and Marketing Department	External Structure	9	4	9:4	2.25	12	7	12:7	1.71	21	11	21:11
Customer Service Department	Internal Structure	2	2	1:1	1.00	3	3	1:1	1.00	5	5	1:1
Finance Department	Internal Structure	4	2	2:1	2.00	1	2	1:2	0.50	5	4	5:4
Human Resources Department	Internal Structure	1	1	1:1	1.00	1	2	1:2	0.50	2	3	2:3
Project Management Office	Internal Structure	4	3	4:3	1.33	4	6	2:3	0.67	8	9	8:9
Quality Management Department	Internal Structure	3	3	1:1	1.00	4	5	4:5	0.80	7	8	7:8



Appendix E:

Client Value Network Metrics

Clients			
Network Area	Transaction	Tangible	Intangible
Sales and Marketing Department	Input	Project Charter Project Plan Final Product	Product Information
	Output	Project Charter Signoff Project Plan Signoff Final Product Approval	Referrals Commitment Feedback Loyalty Requirements
Customer Service Department	Input	Customer Service	
	Output	Customer Service Inquiries	Trust Feedback
Content Department	Input	Project Content French Content Translation	Research (free) Expertise
	Output	French Content Translation	
Finance Department	Input	Invoice	
	Output	Sales Order Payment	
Project Management Office	Input		
	Output	Project Content Approval	
Creative Department	Input		Expertise
	Output		



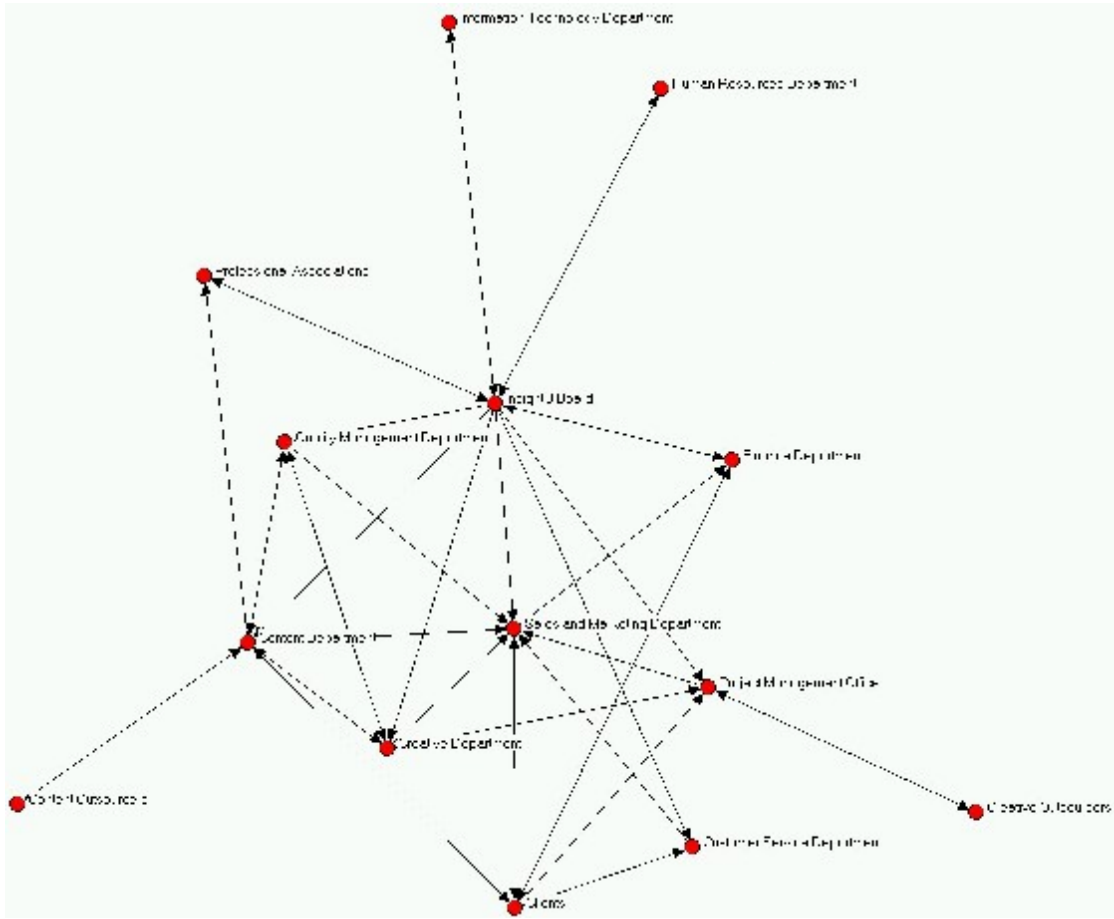
Appendix F:

Content Department Value Network Metrics

Content Department			
Network Area	Transaction	Tangible	Intangible
Clients	Input	French Content Translation	
	Output	Project Content	Research (free)
Sales and Marketing Department	Input		Expertise
	Output	Project Design	Communication (informal)
Content Outsourcers	Input	Project Content	Communication (informal)
	Output	Project Content Requirements	Expertise
Creative Department	Input	Project Creative Design	
	Output	Project Design	Communication (informal)
Board	Input	French Content Translation	
	Output	Strategy	Responsibility (implicit)
Professional Associations	Input		Commitment
	Output	Participation	Feedback
Project Management Office	Input		
	Output		Communication (informal)
Quality Management Office	Input	Project Content Quality Assurance	Communication (informal)
	Output	Project Content	Communication (informal)
Information Technology Department	Input		Expertise
	Output		

Appendix G:

The Company's Tangible Value Network



Appendix H:

Sales and Marketing Department Value Network Metrics

Sales and Marketing Department			
Network Area	Transaction	Tangible	Intangible
Clients	Input	Project Charter Signoff Project Plan Signoff Final Product Approval	Referrals Commitment Feedback Loyalty Requirements
	Output	Project Charter Project Plan Final Product	Product Information
Content Department	Input	Project Design	Communication (informal)
	Output		Communication (informal)
Creative Department	Input	Project Design	Communication (informal)
	Output		Communication (informal)
Finance Department	Input		
	Output	Sales Order	
Board	Input	Strategy	Responsibility (implicit)
	Output		Commitment Feedback
Project Management Office	Input	Project Timeline	Project Ownership Communication (informal)
	Output		Communication (informal)
Quality Management Department	Input	Project Quality Assurance	Communication (informal)
	Output		Communication (informal)
Customer Service Department	Input	Customer Service Reports	Feedback
	Output		

Appendix I:

Project Management Office Value Network Metrics

Project Management Office			
Network Area	Transaction	Tangible	Intangible
Clients	Input	Project Content Approval	
	Output		
Content Department	Input		Communication (informal)
	Output		Communication (informal)
Creative Department	Input	Project Creative Design Requirements	Communication (informal)
	Output	Project Creative Design	Communication (informal)
Creative Outsourcers	Input	Project Creative Design	
	Output	Project Creative Design Requirements	
Board	Input	Strategy	Responsibility (implicit)
	Output		Commitment Feedback
Sales and Marketing Department	Input		Communication (informal)
	Output	Project Timeline	Project Ownership Communication (informal)



Appendix J:

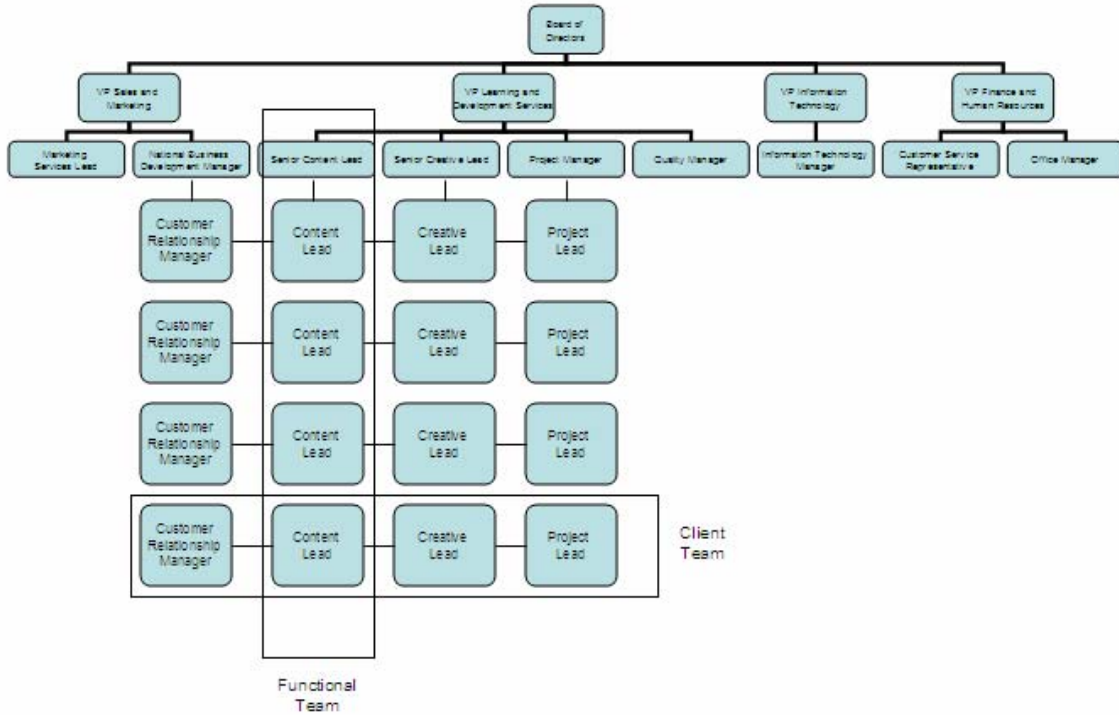
Quality Management Department Value Network Metrics

Quality Management Department			
Network Area	Transaction	Tangible	Intangible
Content Department	Input	Project Content	Communication (informal)
	Output	Project Content Quality Assurance	Communication (informal)
Creative Department	Input	Project Creative Design	Communication (informal)
	Output	Project Creative Design Quality Assurance	Communication (informal)
Board	Input	Strategy	Responsibility (implicit)
	Output		Commitment Feedback
Sales and Marketing Department	Input		Communication (informal)
	Output	Project Quality Assurance	Communication (informal)



Appendix K:

The Company's Organizational Structure



Appendix L:

Board of Directors Value Network Metrics

Board of Directors			
Network Area	Transaction	Tangible	Intangible
Content Department	Input		Commitment Feedback
	Output	Strategy	Responsibility (implicit)
Creative Department	Input		Commitment Feedback
	Output	Strategy	Responsibility (implicit)
Customer Service Department	Input		Commitment Feedback
	Output	Strategy	Responsibility (implicit)
Finance Department	Input	Budget	Commitment Feedback
	Output	Strategy	Responsibility (implicit)
Human Resources Department	Input	Company Policies	Commitment Feedback
	Output	Strategy	Responsibility (implicit)
Information Technology Department	Input	LMS Support Application Support LMS Design Application Design	Commitment Feedback
	Output	Strategy	Responsibility (implicit)
Professional Associations	Input	Events (knowledge sharing)	
	Output	Sponsorship	Sponsorship (free)
Project Management Office	Input		Commitment Feedback
	Output	Strategy	Responsibility (implicit)
Quality Management Department	Input		Commitment Feedback
	Output	Strategy	Responsibility (implicit)
Sales and Marketing Department	Output	Strategy	Responsibility (implicit)

Appendix M:

Professional Associations Value Network Metrics

Professional Associations			
Network Area	Transaction	Tangible	Intangible
Board	Input	Events (knowledge sharing)	
	Output	Sponsorship	Sponsorship (free)
Content Department	Input	Participation	
	Output		

Appendix N:

Information Technology Department Value Network Metrics

Information Technology Department				
Network Area	Transaction	Tangible	Intangible	
Content Department	Input			
	Output		Expertise	
Creative Department	Input			
	Output		Expertise	
Board	Input	Strategy	Responsibility (implicit)	
	Output	LMS Support	Commitment	
		Application Support		Feedback
		LMS Design		
Application Design				



Appendix O:

Value Network Metrics as Percentages

Group	Intangible Classification	Tangible		Intangible		Total			Group		
		In	Out	In	Out	In	Out	Total	Tangible	Intangible	Total
Content Department	Competence	10%	15%	11%	13%	10%	14%	12%	48%	44%	46%
Creative Department	Competence	10%	8%	11%	11%	10%	10%	10%	33%	41%	38%
Information Technology Department	Competence	2%	8%	2%	6%	2%	7%	4%	19%	15%	16%
Clients	External Structure	13%	15%	6%	11%	10%	13%	11%	29%	18%	23%
Content Outsourcers	External Structure	2%	2%	0%	2%	1%	2%	1%	4%	2%	3%
Creative Outsourcers	External Structure	2%	2%	0%	2%	1%	2%	1%	4%	2%	3%
Board	External Structure	13%	19%	29%	16%	22%	17%	20%	33%	46%	40%
Professional Associations	External Structure	4%	2%	2%	0%	3%	1%	2%	6%	2%	4%
Sales and Marketing Department	External Structure	17%	8%	19%	11%	18%	10%	14%	25%	31%	28%
Customer Service Department	Internal Structure	4%	4%	5%	5%	4%	4%	4%	19%	16%	18%
Finance Department	Internal Structure	8%	4%	2%	3%	4%	3%	4%	24%	32%	16%
Human Resources Department	Internal Structure	2%	2%	2%	3%	2%	3%	2%	8%	16%	9%
Project Management Office	Internal Structure	8%	6%	6%	10%	7%	8%	7%	28%	21%	30%
Quality Management Department	Internal Structure	6%	6%	6%	8%	6%	7%	7%	24%	16%	27%



Appendix P:

Creative Outsourcers Value Network Metrics

Creative Outsourcers			
Network Area	Transaction	Tangible	Intangible
Project Management Office	Input	Project Creative Design Requirements	
	Output	Project Creative Design	
Creative Department	Input		
	Output		Expertise

Appendix Q:

Content Outsourcers Value Network Metrics

Content Outsourcers			
Network Area	Transaction	Tangible	Intangible
Content Department	Input	Project Content Requirements	
	Output	Project Content	Expertise

Appendix R:

Finance Department Value Network Metrics

Finance Department			
Network Area	Transaction	Tangible	Intangible
Clients	Input	Sales Order Payment	
	Output	Invoice	
Board	Input	Strategy	Responsibility (implicit)
	Output	Budget	Commitment Feedback
Sales and Marketing Department	Input	Sales Order	
	Output		



Appendix S:

Human Resources Department Value Network Metrics

Human Resources Department			
Network Area	Transaction	Tangible	Intangible
Board	Input	Strategy	Responsibility (implicit)
	Output	Company Policies	Commitment
			Feedback

Appendix T:

Customer Service Department Value Network Metrics

Customer Service Department			
Network Area	Transaction	Tangible	Intangible
Clients	Input	Customer Service Inquiries	Trust Feedback
	Output	Customer Service	
Board	Input	Strategy	Responsibility (implicit)
	Output		Commitment Feedback
Sales and Marketing Department	Input		
	Output	Customer Service Reports	Feedback



Appendix U:

Creative Department Value Network Metrics

Creative Department			
Network Area	Transaction	Tangible	Intangible
Clients	Input		
	Output		Expertise
Content Department	Input	Project Design French Content Translation	
	Output	Project Creative Design	Communication (informal)
Project Management Office	Input	Project Creative Design	Communication (informal)
	Output	Project Creative Design Requirements	Communication (informal)
Quality Management Department	Input	Project Creative Design Quality Assurance	Communication (informal)
	Output	Project Creative Design	Communication (informal)
Board	Input	Strategy	Responsibility (implicit)
	Output		Commitment Feedback
Sales and Marketing Department	Input		Communication (informal)
	Output	Project Design	Communication (informal)
Creative Outsourcers	Input		Expertise
	Output		
Information Technology Department	Input		Expertise
	Output		



Appendix V:

Intangible Assets Monitor Metrics

Measurement Indicator	Area	Indicator	Calculation	Metrics				Growth		
				2003	2004	2005	Total (2005-2003)	2003-2004	2004-2005	2003-2005
Growth	Competence	Level of Education	Years of formal education/Number of Professionals	2.33	2.88	3.64	1.31	24%	26%	56%
Growth	Competence	Number of Years in Profession:	Years of professional experience/Number of professionals	1.33	1.63	2.91	1.58	23%	79%	119%
Growth	Internal Structure	Investment in Internal Structure:	Cost of Investment in Systems or methods/Annual Sales	0.01	0.05	0.1	0.09	400%	100%	900%
Growth	Internal Structure	Customers Contributing to Internal Structure:	# of Accounts/Projects that Grew The Company's Assets/Total # of Account/Projects:	0.33	0.6	0.5	0.17	82%	-17%	52%
Growth	External Structure	Profit per Customer	Operating Margin/# of Customers:	0.09	0.07	0.05	-0.04	-22%	-29%	-44%
Growth	External Structure	Organic Growth	Sales/Last Year's Sales	1.38	1.43	2.5	1.12	4%	75%	81%
Efficiency	Competence	Proportion of	# of Professionals/Total	0.55	0.57	0.5	-0.05	4%	-12%	-9%



		Professionals	# of Employees							
Efficiency	Competence	Value Add per Professional	EBITD + Salaries + Wages + Social Security Contribution/#of Professionals:	\$94,182	\$105,714	\$168,182	\$74,000	12%	59%	79%
Efficiency	Internal Structure	Proportion of Support Staff	Total # of Support Staff/Total Staff	0.18	0.21	0.27	0.09	17%	29%	50%
Efficiency	Internal Structure	Sales Per Support Staff	Sales/Total # of Support Staff	\$518,000	493333	616667	98667	-5%	25%	19%
Efficiency	External Structure	Sales per Customer	Sales/# of Customers	345333	246667	370000	24667	-29%	50%	7%
Stability	Competence	Seniority	Average # of years at The Company	1.33	1.57	1.93	0.6	18%	23%	45%
Stability	Competence	Professional Turnover Rate	# of employees that left during the year/# of employees at the beginning of the year	0.27	0.14	0.05	-0.22	-48%	-64%	-81%
Stability	Internal Structure	Rookie Ratio	# of Employees with less than 2 years service/Total # of Employees	0.91	0.64	0.23	-0.68	-30%	-64%	-75%
Stability	External Structure	Devoted Customer Ratio	Sales from Customers that have been with The Company for >5 years/Total Sales	0	0	0.18	0.18	0%	0%	0%



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