



Information Systems Project - Fall 2002

White Paper

**Decision Coaches, Inc.**



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## Table of Contents

<b>I.</b>	<b>ABSTRACT</b>	<b>...5</b>
<b>II.</b>	<b>OVERVIEW</b>	<b>...6</b>
	<b>Client History</b>	<b>...6</b>
	<b>Problem</b>	<b>...7</b>
	<b>Scope</b>	<b>...8</b>
	<b>Deliverables</b>	<b>...8</b>
<b>III.</b>	<b>PROJECT TEAM DYNAMICS</b>	<b>...10</b>
<b>IV.</b>	<b>THE DEVELOPMENT PROCESS</b>	<b>...12</b>
	<b>TECHNICAL OBJECTIVES</b>	
	<b><u>Phase 1:</u></b> <i>Requirements Elicitation</i>	<b>...13</b>
	<b><u>Phase II:</u></b> <i>Design</i>	<b>...15</b>
	<b><u>Phase III:</u></b> <i>Implementation</i>	<b>...19</b>
	<b><u>Phase IV:</u></b> <i>Testing</i>	<b>...20</b>
	<b>BUSINESS OBJECTIVES</b>	
	<b><u>Phase 1:</u></b> <i>Aliah MISSION</i>	<b>...20</b>
	<b><u>Phase II:</u></b> <i>Aliah LISTEN</i>	<b>...24</b>
	<b><u>Phase III:</u></b> <i>Benchmarking Analysis</i>	<b>...29</b>
<b>V.</b>	<b>PROJECT RETROSPECTIVE</b>	<b>...32</b>
<b>VI.</b>	<b>CONCLUSION</b>	<b>...34</b>
<b>VII.</b>	<b>REFERENCES</b>	<b>...36</b>

## List of Figures

1.	Project development phase	...12
2.	ER diagram for the temporary storage	...15
3.	Flow chart of the Ratings Sheet	...16
4.	Flow chart of the loading of the Ratings Sheet user interface	...17
5.	Flow chart of how the ratings are stored and broadcasted	...18
6.	Ratings Sheet – Flash interface in AliahTHINK! <sup>TM</sup> 5.0	...19

## **I. Abstract**

Decision Coaches, Inc. is a software-based consulting company headquartered in Pittsburgh, Pennsylvania. The Carnegie Mellon University's Master of Information Systems (MISM) team was commissioned to develop the RatingsSheet, a component of a distributed decision support systems tool called AliahTHINK!<sup>TM</sup> v5.0 used by Decision Coaches, Inc. that allows users to participate in a decision making process across disparate platforms and in various locations and develop a business plan. The project team consisted of seven team members to deliver this project on time, under budget and with exceptional client satisfaction.

The team's final deliverables were a working prototype of the AliahTHINKv5.0 RatingsSheet with documentation, user manual, company mission statement proposal, and customer and competitor analysis including recommendations for future actions. In addition, multiple presentations were conducted throughout the project lifecycle.

This document includes an overview of the experiences, challenges and decision of the MISM project team. Furthermore, documentation includes the detailed information gathered by the MISM team to understand the market, customers, competitors and technology required for completion of this project. All case information was developed following project development phases detailed in the project plan attached to this paper.

## II. Overview

### **Client History:**

Decision Coaches (DCI) was organized in 2002 by former employees who bought the intellectual property of Aliah, Inc. Aliah, Inc. was organized in 1991. The company sold decision-making software and consulting services accompanied by training to assist customers using their software. Until 1998, Aliah maintained this business strategy.

Through years 1991-1998 IBM became a chief client. IBM purchased 2,500 licenses for internal use without DCI facilitation services. Licenses were sold as “perpetual” and few licenses were renewed. DCI still maintains the IBM account, however as a small percentage of earnings.

In 1998, Aliah hired as president former Boeing Company manager, Sam Galagaza, who changed the business model and marketing strategies. Mr. Galagaza added offering decision making services online on a per use basis for all types of decisions. The company still maintained \$2 million in revenues, however 65% of it was still from facilitation, 30% was from training and only 15% was from web sales. Unfortunately, until 2001 the company kept focusing on the web, which resulted in their eventual bankruptcy.

Learning from the past, DCI has employed a different business model. Currently, DCI focuses on coaching, not just consultation. In addition, Decision Coaches, Inc. assists customers in making “documentable” and “systematic” decisions and increasing their probability of winning in large bid proposals.

**Problem:**

DCI is now targeting companies and industries that have characteristics of complex decision-making environments. The challenge for DCI is to maintain ongoing accounts in the company's portfolio. Potential clients must possess decision-making as a continuous effort in their market in order to be able to sustain a constant stream of revenues.

DCI, in its current form, is fairly new. The company has decided to follow a software-based consulting business model that relies on customer's requiring assistance in making costly decisions on a regular basis. Unfortunately, DCI faces infrequent spikes of income not allowing them to forecast and plan business strategies.

Changes in company focus as of February 2002 (i.e. software based consulting) brought about questions regarding actual versus perceived value added to clients. Decision Coaches, Inc. employs a unique perspective to consulting. Like the name implies, DCI coaches clients through the decision-making process using AliahTHINK!<sup>TM</sup> v.4.0 software. Coaching value is largely realized through the ability of coaches to navigate clients through the issues using software and skill eliciting issues during discussion. At this stage, Decision Coaches leadership is not sure whether the perceived value is the actual value being added to the company. Lastly, DCI does not have a stated and expressed company mission statement.

Current DCI decision-making coaching sessions require all participants (including the coach) to be in the same physical location. DCI has identified this practice as adding a significant

cost to their customers and may serve as a consideration for not acquiring their services. Currently, DCI uses AliahTHINK!<sup>TM</sup> v4.0 as an integral part of their coaching services. AliahTHINK!<sup>TM</sup> v4.0 is a proprietary software application used to graphically display input and results of the consultation process. At this time, this software is not capable of being distributed to users in various locations.<sup>1</sup> DCI views offering distributed coaching as a comparative advantage. They have envisioned this in the next version, AliahTHINK!<sup>TM</sup> v5.0

**Scope:**

The scope of this project was to collect and analyze DCI client perceptions and attitudes regarding DCI service offerings. Customer judgments were analyzed using AliahTHINK!<sup>TM</sup> v4.0 AliahLISTEN!<sup>TM</sup> template. In order to assist our client in focusing their efforts in meeting the needs of their clients and evaluate their values, the extent of this project also entailed assisting DCI to realize a mission statement.

To further the ability of DCI to meet the changing needs of their clients, the project scope also involved design and development of a prototype of a distributed RatingsSheet application.

**Deliverables:**

The project team followed a four-phase development path to organize and manage RatingsSheet deliverables. Major milestones included initial team meetings with the client, requirements documentation, design presentation with the client, coding of all components and incremental integration testing. The team liaised with the client via weekly

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<sup>1</sup> This is not true of certain features of AliahTHINK!<sup>TM</sup> v5.0 such as the Common Comparison aspect of the software.

communication as needed through email or onsite meetings at the client's office or by meeting the client on campus.

Business issue milestones included initial company overview documentation, presentation of company understanding and history, AliahTHINK!<sup>TM</sup> v4.0 AliahMISSION!<sup>TM</sup> and AliahLISTEN!<sup>TM</sup> sessions and analysis.

### III. Project Team Dynamics

The team of seven masters candidates was introduced to this project through a preliminary meeting with all potential MISM program clients. Preliminary information packets were provided by all client candidates accompanied by presentations. Students were asked to rank these projects in the order of their preference. Students were then assigned to these projects. This team immediately met and began setting the framework in order to gather a better understanding of the scope and requirements of the project. Team members agreed upon various positions created to facilitate project management, finance, system administrator, process management, and finance management.

The team initially met with the client and received an overall understanding of their objectives and expectations of the project and its deliverables. Due to the complexity of the project, the learning curve adopted from the integration of disparate technologies, and duality, defined by the business and technical aspects of the project - the team felt it was necessary to reduce some of the requirements of the final deliverables. With some short discussion and upon agreement with Decision Coaches, Inc. an aspect of the project scope was alleviated.

With input from team members, a project and communication plan was produced to meet the requirements elicited in our meeting with Decision Coaches. Risks were identified and mitigating controls were established to make the process and project successful. Sub-teams were established to meet the diverse needs of the project. Technical and business lead positions were created to guide the teams in the more detailed aspects of the project. These leads worked closely with the project manager to keep the project on schedule and focused on providing quality deliverables.

On separate schedules, sub-groups met to accomplish tasks leading to milestones. However, the team, as a whole met weekly in order to establish a complete

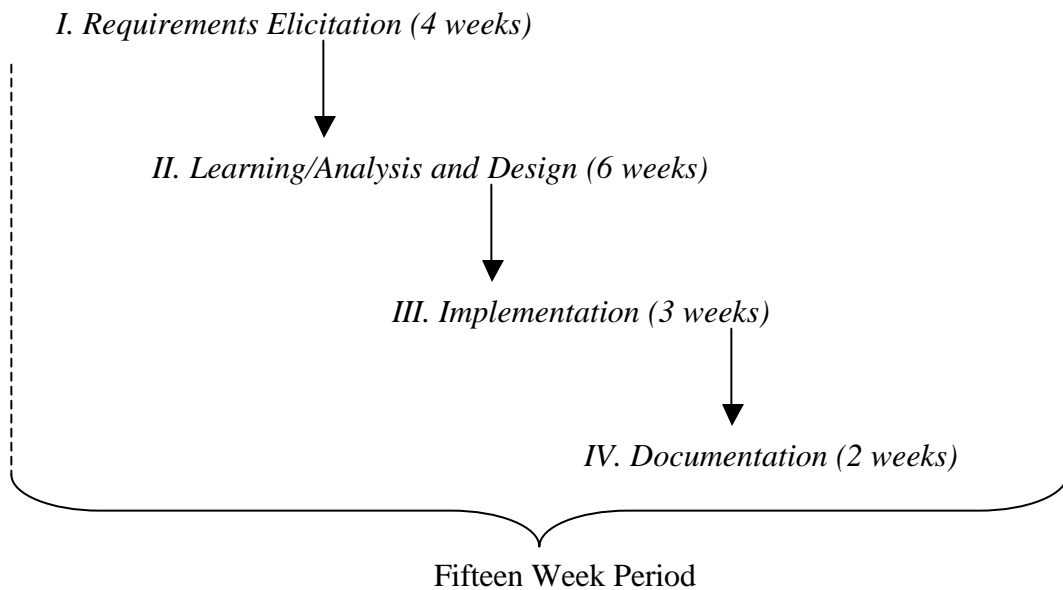
understanding of the direction of the project. Moreover, weekly, complete team meetings, consisting of all 7 masters candidates, were imperative due to the influence of AliahTHINKv5.0 on the business practices of our client. Meetings between the project manager and team advisor were held weekly. The project manager maintained project plan details. Updates were made during with collaboration between the business and technical leads, and project manager. Presentations and feedback diagrams are attached to this document.

## IV. The Development Process

The development process for the team involved an intense learning/design phase. Due to the intricacy of integrating technologies that, for the most part, are not traditionally used in concert, the design phase became the phase with the most time allotted. This approach did not afford the team much flexibility in regard to slack time that may be necessary in the remainder of the project. In fact, we considered this an acceptable, yet high risk in order to produce a working prototype.

Exhibit 1 is a general mapping of the timeline used in this portion of the project. Phases were sunset with a review of deliverables from the team lead and project manager.

### Exhibit 1 Project Development Phase



## The Technical Objectives

### PHASE I: Requirements Elicitation

Phase 1, Requirements Elicitation, was an involved endeavor with the goal of finding the salient functionality and deliverables from our client. Although Decision Coaches supplied a project description, our approach was to assume customer requirements must be explicitly not implicitly stated. As a team our primary goal was to understand the scope of the business section and the technology used for AliahTHINKv5.0 Our team met, initially, with DCI and began to understand DCI as a company and the AliahTHINK!™ software as a decision support system tool. The initial meeting allowed us to gain an appreciation of how the business and technological aspects of the project worked together regarding the future plans of the client. However, the scope of the business project still was not clear nor was it breadth mall enough to be manageable for the timeframe of the project.

The preliminary information gathered in this meeting was used by the team to develop a project summary outlining the project scope (as was understood by the team), germane milestones, deliverables, and perception of the current business practices. To manage team and client communication, a communication plan was developed.

The business and technical teams met individually on a separate basis with the client to illicit explicit and implicit requirements. The business team gained a perspective on the history and future of DCI while the technical team increased their understanding of the technologies and architecture of previous team projects that related to the integration and the current project.

The business section of the team walked away from this exercise feeling confident that the scope of the business plan entailed a comprehensive business, marketing and pricing strategy accompanied by a competitor profile. The technical section of the

team learned about the disparate technologies needed to complete the project as well as the importance of developing a strategy to learn how to integrate these technologies. Moreover, the challenge to this portion of the project was to recognize how to design the software to accomplish the functionality desired by the client.

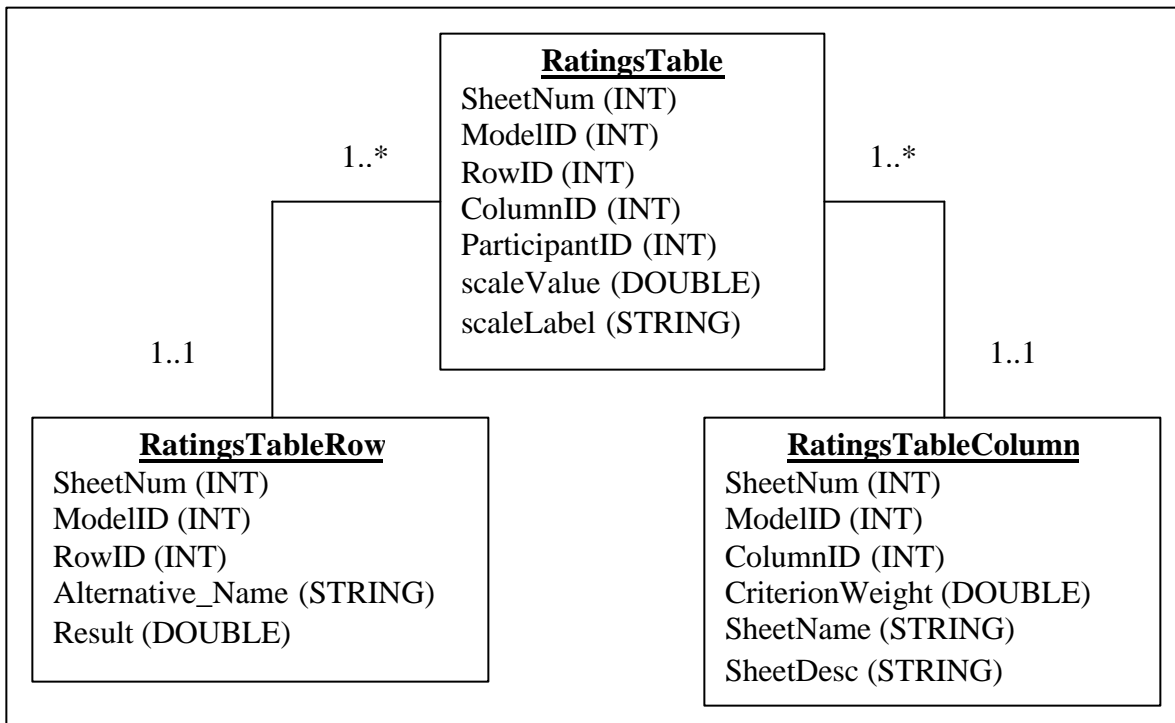
## PHASE II: Design

While designing the RatingsSheet module, the main consideration, besides the customer's requirements, was to integrate this module with the existing modules like Common Comparison Interface and other modules. Another point for consideration was future extensibility of the same code base.

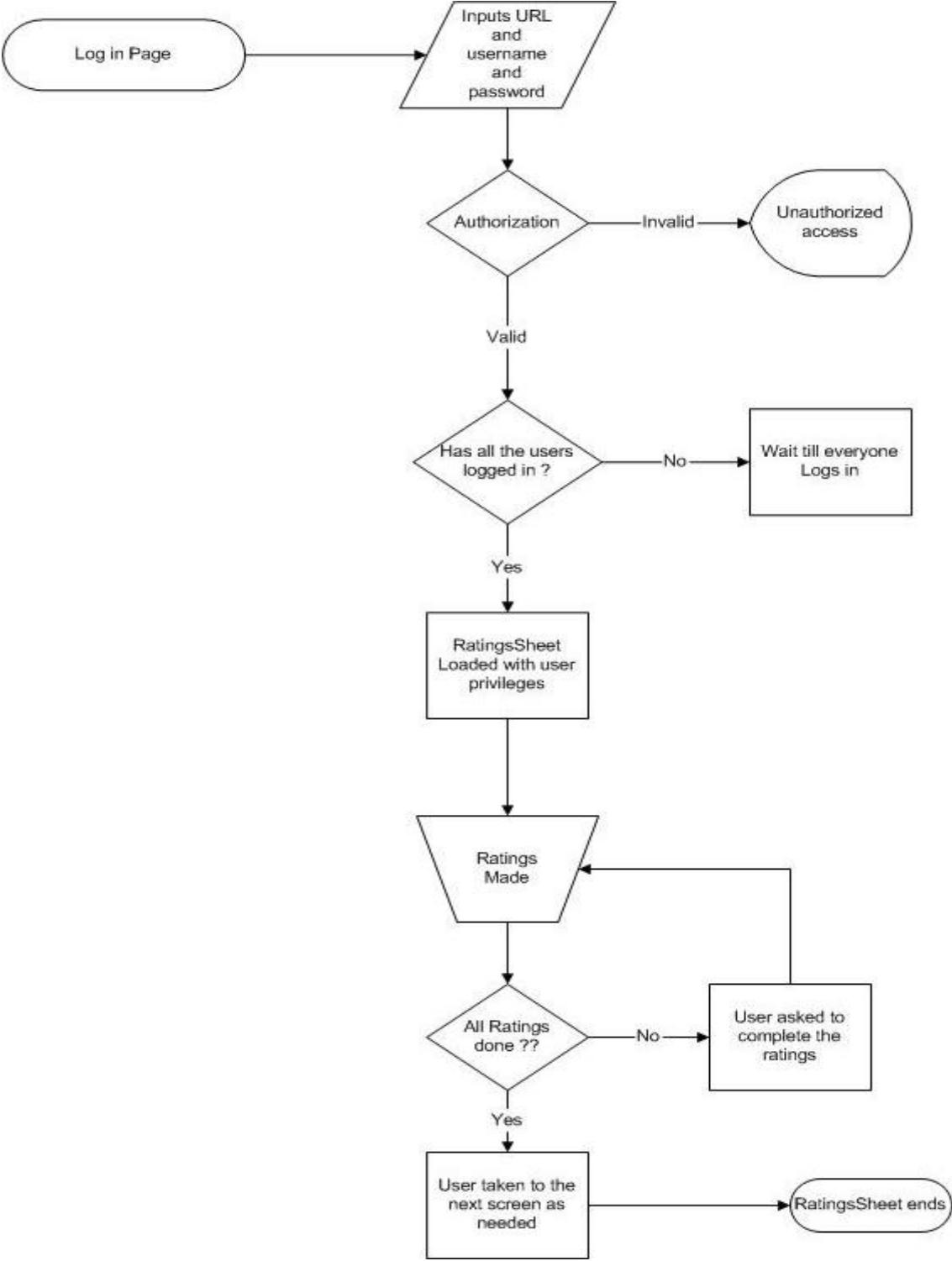
Some of the requirements were:

- ?? The system had to be distributed and web enabled
- ?? It had to be capable of real time peer to peer communication
- ?? It had to have temporary storage to store the changes made in a session
- ?? A transfer was required to permanent storage at the end of a session
- ?? It had to extend from existing modules
- ?? It also had to be extensible for future teams to build on

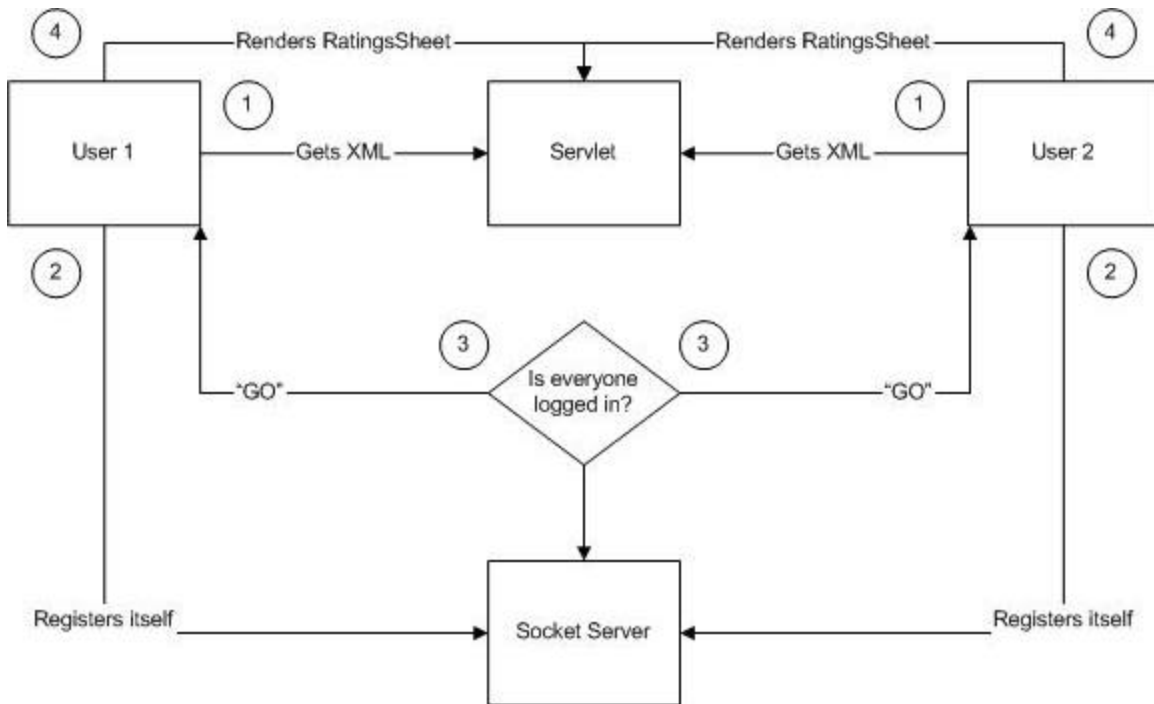
We developed the following diagrams during our design process:



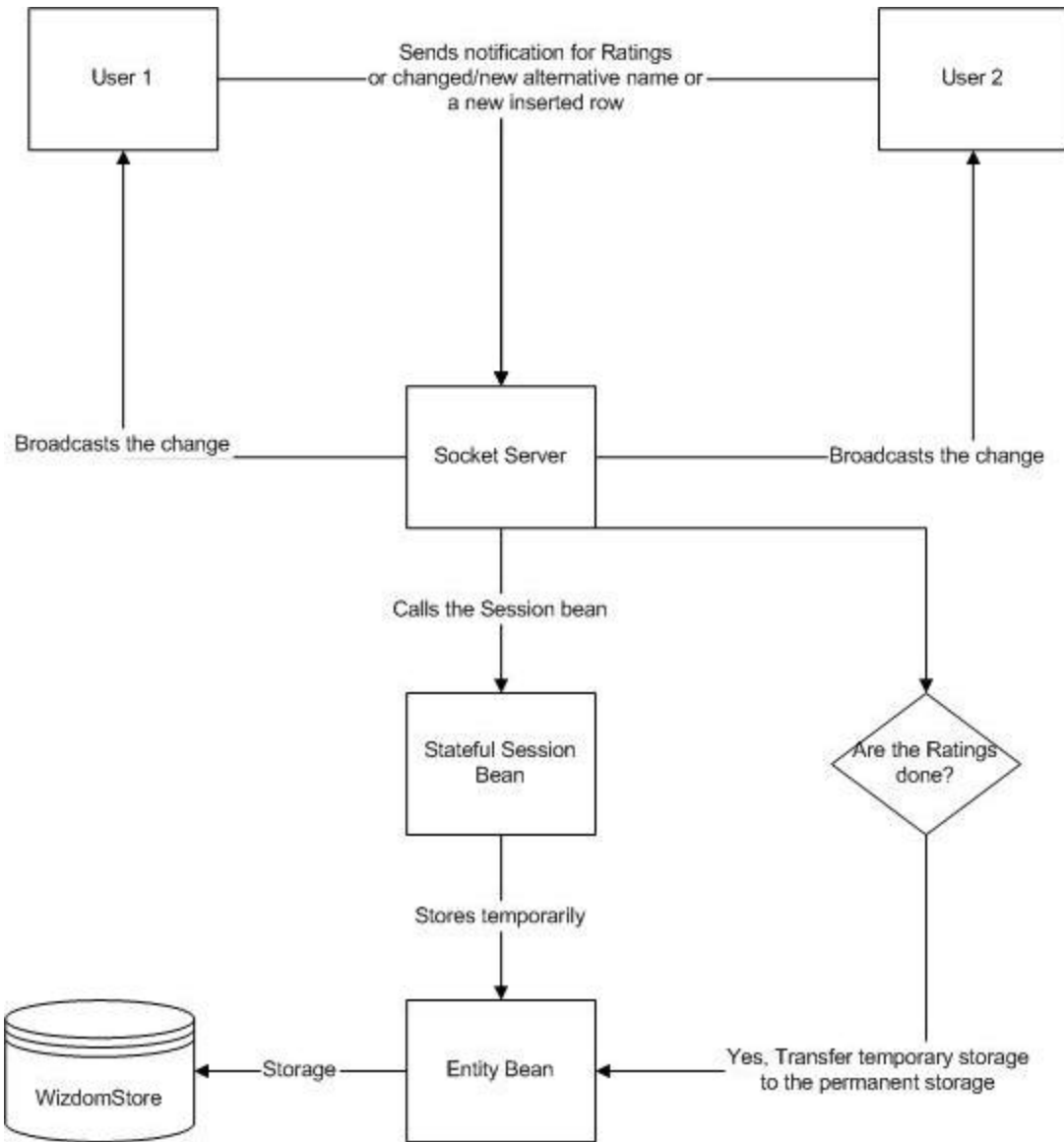
**ER Diagram for the temporary storage**



**Flow Chart of the Ratings Sheet**



**Flow chart of the loading of the Ratings Sheet User Interface**



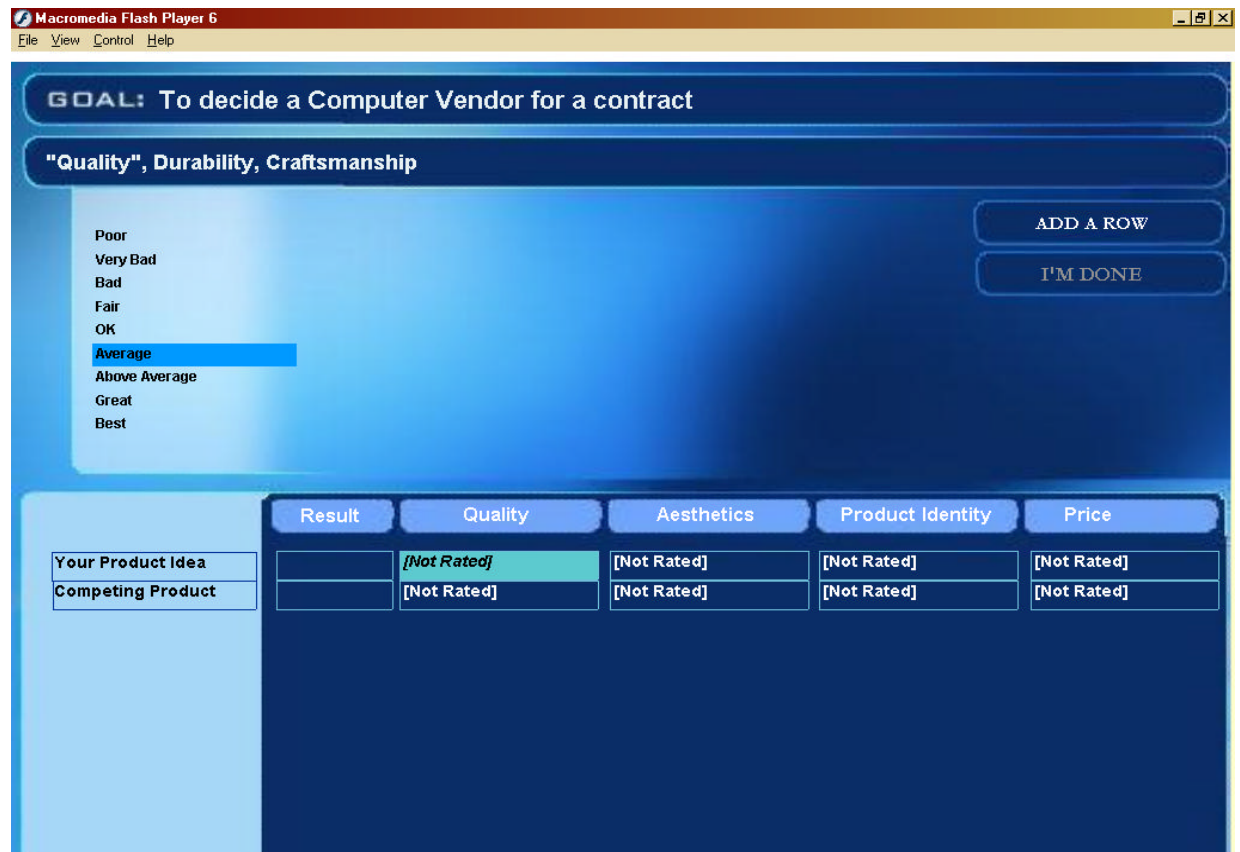
**Flow chart of how the Ratings are stored and broadcasted**

The user interface is a flash enabled browser. The user’s interactions are captured by the flash interface and communicated to the EJB, which stores the data in a Sybase database. The application server used was the Sun J2EE server.

### PHASE III: Implementation

The development phase followed the design and analysis phase. The development was carried out mostly in the room allocated for the IS Project at school, Hamburg Hall. The development was divided between mostly two members of the team. One person was responsible for the User Interface, Flash. The other was the Database and Systems Admin for the server machine. This person was also responsible for the back end java components. The messaging between the two layers was mostly in XML. These XMLs were developed jointly by the two members.

The Java Enterprise Edition was used to develop the J2EE components and the Flash Action Scripts were used for the logic in the flash interface.



**Ratings Sheet – Flash Interface in AliahTHINK!™ 5.0**

#### **PHASE IV: Testing**

The testing was initially done for a normal sequence of flow. This phase was targeted to detect any communication anomalies between the 2 layers. Once this phase was completed, the concentration was to ensure robustness of the code to handle unusual behavior.

## The Business Objectives

### Analytic Hierarchy Process (AHP) as an Engine<sup>2</sup>

The AliahTHINK!<sup>TM</sup> software uses the Analytic Hierarchy Process (AHP) at its core as an engine to organize and store information in a hierarchy format. AHP is a framework for expressing priorities and preferences in multi-criteria decision-making and problem-solving efforts. It provides a format to combine hard, quantitative data with soft qualitative issues such as opinions, feelings and preferences in a comprehensive model for quantitative analysis.

The AHP has been used in almost every field and industry imaginable. Users of the AHP accept it because it is grounded in known psycho-emotional and mathematical foundations and has been proven accurate and successful in thousands of applications.

### PHASE I: The AliahMISSION!<sup>TM</sup> Process

The AliahMISSION!<sup>TM</sup> template, one of the several templates in AliahTHINK!<sup>TM</sup> v4.0, has been designed to define and prioritize the vision and the mission of a company along with the strategic action plan in accordance with their mission. It is a tool with the following features:

- ☞ Supports group-based decision-making,
- ☞ Uses defined and prioritized criteria in order to form a clear enterprise mission,
- ☞ Assists organizations or groups to form a strategic action plan in accordance with their mission.

The process followed in developing the AliahMISSION!<sup>TM</sup> is formed of the following steps:

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<sup>2</sup> Taken from the help files of the AliahTHINK!<sup>TM</sup> v4.0 software.

1. Brainstorming: The purpose of brainstorming is to identify all the elements that are related to the goal. Any idea that pertains to the goal is a potential element for the model. Brainstorming generates ideas to begin the development of the model.
2. Defining and Entering the Goal Statement
3. Setting Priorities: The priorities of the five major categorical headings under the goal are determined in comparison to each other.
4. Clustering elements into groups: This step allocates each element identified during the brainstorming session into the relevant category.
5. Group Voting for Weights (Priority): Through the group voting session, all the previously determined elements were voted as pairwise comparisons using a predefined comparison scale.
6. Obtaining Synthesis: The synthesis of the votes determines the priority rank of each element.
7. Dealing with Inconsistency: Inconsistency is automatically checked during the voting process by the software. It is not totally inevitable; in contrast, having an inconsistency of around 0.2 is desired in group sessions.

The team conducted a group session using the AliahMISSION!<sup>TM</sup> template and has gone through all the above steps for the process of developing a mission statement framework for Decision Coaches and prioritizing their strategic objectives. The goal statement of the AliahMISSION!<sup>TM</sup> process has been determined as “Decision Coaches to survive and thrive in the software-based consulting industry in the year 2003” by the team. The results are summarized below :

CATEGORY	ELEMENT	% IMPORTANCE
1. DECISION COACHES	Financial Health	27%
2. CUSTOMERS	Best Decision	15%
3. DECISION COACHES	Brand Image	13%
4. CUSTOMERS	Extra Value	7%
5. PARTNERS	Network/Rapport	6%
6. EXTERNAL FORCES	Coaching Unfamiliarity	4%
7. PARTNERS	Reputation	4%
8. DECISION COACHES	Culture/People	3%

9. CUSTOMER	Coaching	3%
10. CUSTOMER	Customer Relationship	3%

Here is how the team defined the categories and elements appearing in the above table:

**Partners:** In order for an organization to survive and thrive it must develop strategic partnerships that either enhance the organization's existing capabilities or create new capabilities that will enable the organization to provide better value to its customers. At this step, we have identified the value that strategic partners can provide to enhance DECISION COACHES' capabilities or create new capabilities.

⚡⚡ Network/Rapport: Partners' established network of customers, and harmonious and sympathetic relationships with them

**Decision Coaches:** In order to survive and thrive, a well-balanced organization delivers value by focusing internally as well as externally. The internal goals and objectives relate to the organization's financial well-being, core innovation, the culture of the organization and its people, and brand strategy.

⚡⚡ Financial health: 2 Million Dollars income for the next year, 30% profit margin, 4 light house customers (Repeated business and stable income)

⚡⚡ Culture/People: Presence of visionary people leading to creativity and enabling innovative ideas within Decision Coaches as an internal strength

⚡⚡ Brand Image: Strong aspiration for success and entrepreneurial spirit, making people feel smart.

**Customers:** In order for an organization to survive and thrive it must provide value to its customers. What is the basic value that the customer expects to receive from your products and services? What key requirements must you provide in order to "stay in the game"?

⚡⚡ Best Decision: Through simplification of complex situations and AHP analysis

⚡⚡ Coaching: Galvanizing the teams into action

⚡⚡ Extra Value: Value added services - cost-effective, and timely (swift) decisions, extract the opinions of all participants in a structural way, document every stage in the process and hence justify the decision

⚡⚡ Customer Relationship: Especially post-decision relationship with customers

**External Forces:** We have listed the external forces that have the greatest impact on Decision Coaches' ability to survive and thrive relative in the specific industry identified in the goal statement. The external forces may be either an opportunity or a threat for the organization. Although the forces may be beyond direct control, the organization should incorporate them into its mission to successfully position itself in its goal to survive and thrive.

⚡⚡ Coaching Unfamiliarity: Customers are unaware of "coaching" as a concept. They appreciate the concept only after seeing it. It is a chicken and egg paradox.

The value driven from within DECISION COACHES itself adds up to 43%, which can be considered to be a significant and advantageous result. Of the remainder, moving down to the 80% level, 28% is driven by CUSTOMER values and potential PARTNERS can deliver only 10% of the overall value.

In conclusion, Decision Coaches should base its mission, vision and strategic objectives on primarily its internal strengths followed immediately by the values it provides to its customers.

### **Sample Mission Statement for Decision Coaches**

Based on the above analysis and information, the following is a sample mission statement we have produced for Decision Coaches:

Our mission is to coach organizations to make best decisions through simplification of complex business situations. With our expertise, we aim to maximize organizations' probability of winning in the competitive business environment and to provide extra value for their needs. We are committed to growth and achieving leadership positions in the markets we have chosen.

- ?? **Culture/people:** our visionary people lead to creativity and are able to generate innovative ideas to help our clients achieve their goals.
- ?? **Innovation:** our expertise team makes coaching with the aid of leading AliahTHINK!<sup>TM</sup> decision support software, the utilization of Analytic Hierarchy Process (AHP) and standard business framework.
- ?? **Extra values:** we aim to add valued services of cost-effective and timely decisions that extract the opinions of all participants in a structural way to justify the decisions.
- ?? **Coaching:** coaching is designed to provide our clients with a greater capacity to produce results and a greater confidence in their ability to do so. In coaching process, information drawn from our clients is used by our coaches to promote the client's awareness of best decisions. Our coaches are experienced experts and are able to facilitate the coaching process.

Our aspiration for client success and commitment to this mission will strengthen our market position and create an environment in which our clients and employees can prosper.

## **PHASE II: The AliahLISTEN! Process**

The AliahLISTEN!<sup>TM</sup> template has been created in order for a company to be able to properly evaluate the customers' feedback in order to determine their buying behavior or expectations about a company's products.

The team conducted interviews with current clients of Decision Coaches and has incorporated the results of these interviews into the AliahLISTEN!<sup>TM</sup> template of the AliahTHINK!<sup>TM</sup> software for the process of capturing the perception of customers for Decision Coaches' services.

The interview questionnaires were sent out to 10 current customers who are either mid-level managers or executives at different companies. Out of these 10 customers, only 5 of them have filled out the questionnaires and returned to us within the provided time frame.

### **The Questionnaire: Rationale and Process**

After gathering all the related information from Decision Coaches through several meetings at the beginning of the semester, there still was the possibility that Decision Coaches' perception of how their customers recognize them, and our view of the company could have been distorted due to several reasons. Therefore, the team has decided to prepare a questionnaire and get direct feedback from the customers and make justified recommendations to Decision Coaches.

The expectations of the team when preparing the questionnaire were to extract information about:

- Customer satisfaction level including
  - Quality
  - Value added to their business
  - The results of using Decision Coaches' services

- ✍✍ Frequency of use
- ✍✍ The type and size of the decisions these services are utilized in
- ✍✍ Direct and indirect competition
- ✍✍ Pricing
- ✍✍ Future expectations
- ✍✍ Business Model of DECISION COACHES

The questionnaire was prepared with the rationale that the findings were to be applied to the AliahLISTEN!<sup>TM</sup> template. Therefore these expectations were collected under the 8 categorical headings utilized within the AliahLISTEN!<sup>TM</sup> template and the relevancy of each question was double checked using the “Brainstorming Lists” already included in the template that provides a list of all related items under each categorical heading.

Upon gathering the above information, the team has entered the responses to every closed-ended question into the AliahLISTEN!<sup>TM</sup> model under the relevant categories. With respect to the below described assumptions and calculation methods, the information was first converted into “Data Comparisons” through which we were able to obtain the prioritizations of each category and the associated criteria as described in detail in the following sections. Finally, individual responses were inserted into the “RatingsSheet” in order to be able to see how satisfied each individual has been with Decision Coaches’ services. The results were then evaluated and recommendations were made for Decision Coaches.

The overall prioritization of the results reveal the following ranking for the items in the top 80%, which means that although there are 46 criteria being analyzed, the first 19 reveal 80% of all the importance assigned to them.

CATEGORY	SUB-CRITERIA	% IMPORTANCE
1. BUSINESS MODEL	NEED FOR DECISION COACHES' SERVICES	12%
2. COST	VALUE	6%
3. VALUE DELIVERY	REUSE OF DECISION COACHES' SERVICES	5%
4. COST	COMPARING ALTERNATIVES	5%
5. PERFORMANCE	GOAL ACHIEVEMENT	5%
6. FUTURE	CUSTOM DECISION PROCESSES	4%
7. PERFORMANCE	DECISION OPTIMALITY	4%
8. VALUE DELIVERY	SESSION DURATION	4%
9. VALUE DELIVERY	VALUE GENERATION	4%
10. VALUE DELIVERY	SUMMARY REPORT	4%
11. PERFORMANCE	OUT-OF-THE-BOX THINKING	4%
12. PERFORMANCE	TIME SAVINGS	3%
13. COST	PRICING	3%
14. INNOVATION	REALISTIC PRIORITIZATION	3%
15. FUTURE	WEB-ENABLEMENT	3%
16. FEARS	RELIABILITY OF DECISION COACHES' SERVICES	3%
17. VALUE DELIVERY	FREQUENCY OF USE	3%
18. PERFORMANCE	COMPREHENSIVENESS	3%
19. FEARS	OTHER RISKS	3%

- ☞ In the final analysis, the sub-criteria appearing under VALUE DELIVERY add up to 20 % of the overall value as perceived by the customers.
- ☞ The overall synthesis reveals that the most important criteria for the customers when they prefer Decision Coaches' services and the one which provides the highest value is the VALUE under COST, excluding the NEED FOR DECISION COACHES' SERVICES as per the discussion in the "Inconsistencies" section below.
- ☞ Following major category is the PERFORMANCE totaling up to 19% of the value provided. COST is the next item in the list presenting 14% of the overall value to the customers.
- ☞ These findings indicate that VALUE DELIVERED by Decision Coaches' services is the most important to the customers, whereas they care about the way

VALUE is delivered to them (PERFORMANCE) as well as the associated COSTS. They also think that Decision Coaches' services are cheaper than alternative solutions as indicated by item 4, COMPARING ALTERNATIVES' prices under COST.

- ☞☞ Current customers will keep using Decision Coaches' services in accordance with the fact that they have achieved their goals, however, we cannot get the answer to constant revenue stream from reuse, we should have asked institutionalization of the process for use in everyday decisions.
- ☞☞ The FUTURE items in number 6 and 15 above are CUSTOM DECISION PROCESSES and WEB-ENABLEMENT, which are also related with FUTURE PERFORMANCE, indicating that the customers are expecting an increase in the performance even though they are satisfied for the time being.
- ☞☞ The customers also claim that they save time by using Decision Coaches' services in their decision-making process, however, they still find the duration of individual sessions longer than expected.
- ☞☞ The facilitator as opposed to the software generates most of the value.
- ☞☞ The customers find Decision Coaches' services RELIABLE in addition to the fact that they find the process to REALISTICALLY PRIORITIZE their decisions.
- ☞☞ In terms of the BUSINESS MODEL, the customers believe that although they may be able to INTERNALLY utilize the technique, there will be cases when they will need Decision Coaches' services and they already have an idea in which cases they will need the company. These findings are not included in the above list, but can be found in the answers to the relevant open-ended questions in the questionnaire.

### **Analysis of Individual Responses Using the Rating Sheet**

After an informational meeting with Decision Coaches, it was concluded that the results should also be incorporated into the RatingsSheet. The idea was to be able to

see how satisfied each individual was. Therefore, we have created 12 different scales corresponding to each question in the questionnaire and have entered individual responses for each question into the RatingsSheet.

As a result, we were able to come up with the satisfaction level of each individual as follows:

Paul Bazaar	68.39 %
Randy Cobat	72.62 %
Russ Lamer	74.35 %
Michelle McCammon	79.82 %
John Carrol	40.26 %

The satisfaction level of John Carrol is not representative in the sense that this individual was not able to complete the questionnaire. He has answered only 14 questions out of 43. Therefore, excluding John Carrol, the average satisfaction level of customers is **73.80 %**, which is an important overall measure for Decision Coaches to evaluate itself. This figure significantly represents that the overall satisfaction level of customers is high, however there still are issues to be addressed by the company.

The final recommendations that can be derived from the AliahLISTEN!<sup>TM</sup> study are as follows:

- ❏ DCI should focus on Fortune 500-1000 and those departments of these companies with the highest number of technical people.
- ❏ DCI should get into longer engagements with their customers as our group did with them and provide turn-key services.
- ❏ Contact customers more frequently than they are doing for the time being.
- ❏ Develop a pricing strategy
- ❏ Address risk issues such as confidentiality of information for individual clients and possible breakdown of a situation after a DCI session is completed.

### **PHASE III: Benchmarking Analysis**

Benchmarking is the process of measuring the business and operations of the targeted company against the similar operations of other companies or industries for the purpose of improving the business process or management strategies of the targeted company. Based on the purpose of identifying the successful business models for improving the business performance of Decision Coaches, our group selected three benchmarking companies: FreeMarkets, Gartner, and McKinsey. Of the three companies, two are consulting companies and one is a global provider of sourcing software and services.

Our benchmarking focused on these five elements to find the successful comparative business model(s) or strategies for DCI. The benchmarking can also be used as the initiatives in the AliahMISSION!<sup>TM</sup> model to complete the business strategies of DCI. The team has performed a detailed one-to-one company analysis with four criteria: why choose the company to benchmark; how the company's business relates to DCI; what is the difference and recommendations.

Based on the analysis of FreeMarkets' business, we have the following recommendations for Decision Coaches:

- ☞ Software is an important tool to help companies (especially software based) to meet their customer needs in a cost-effective and efficient way, but do not license the software in price for sale. Like FreeMarkets, DCI can mark itself as a leading e-decision making company.
- ☞ Sound mission and positioning statement of a company are necessary to build the company's brand name and image. As FreeMarkets does, DCI could position itself to different type of business population. To customers, DCI is the leader in the market they chose; to investors, DCI has strong aspirations for success, entrepreneurial spirit and potential growth; to partners, DCI's decision process makes people feel smart.

Similarly, based on the analysis of Gartner's business, we have the following recommendations for Decision Coaches:

- ☞☞ Partnering with Gartner is a way to add extra value into the services of DCI and also to increase customer pool. Because the companies that seek Gartner's services plan to either develop or implement software and management information system for improving the competitive capabilities, the services of DCI could become the beneficial complementary services to these companies. Partnering with Gartner will bring DCI great business benefits.
- ☞☞ Improving networking programs and partnering with CMU. Restricted by the limitation of income, DCI may have problems holding large executive programs, symposium, however, DCI needs to consider some small regional events intending to improve the networking and partnerships.

Based on the analysis of McKinsey's business, we have the following recommendations for Decision Coaches:

- ☞☞ Partnering with McKinsey is a good way to add extra value into the services of DCI and also to increase customer pool. Because the companies that seek McKinsey's services plan to improve their business performance and some companies include government organizations that could become a customer source for DCI.
- ☞☞ Considering a fixed pricing model to increase financial revenues. The pricing strategy is important for DCI. A flexible and acceptable pricing strategy helps to stabilize the financial income as well as increasing the markets.
- ☞☞ Partnering with CMU and continuously building the brand image of DCI.

The team has benchmarked and analyzed the business of the above three companies. Even though none of these companies are the direct competitors of DCI, their businesses are worth to benchmark. We have made the following recommendations in terms of the five main strategic elements that we analyzed for DCI from the AliahMISSION™ model. In general, these recommendations are concluded as follows:

1. Clear and sound mission statement and positioning of the company are necessary to build the company's brand name and image.
2. Partnering with Gartner or McKinsey is a good way to add extra value into the services of Decision Coaches' business.
3. Partnering with CMU or some other famous universities to build Decision Coaches' brand image.
4. Improving networking programs by holding some small regional events intending to improve the networking and partnerships.
5. Continuously enhancing the functions of the software, but do not license it.
6. Fixed pricing model based on the hour charge needs to be considered. Appropriately increasing the price charged could improve the financial situation.

## V. Project Retrospective

Decision Coaches' ultimate goal for the AliahTHINK!<sup>TM</sup> software is to produce an application that can be deployed to the Desktop, as a Peer-To-Peer application, as a traditional multi-tier server system, and as a fully compliant web service. The appearance of all modules of AliahTHINK!<sup>TM</sup> v5.0 must be versatile and dynamic.

Objectively, AliahTHINK!<sup>TM</sup> v5.0 is required to have the following attributes:

- ✂✂ Platform independent
- ✂✂ Web enabled
- ✂✂ Able to support distributed Peer – to – Peer participation
- ✂✂ Any number of Users may be able to use the software simultaneously
- ✂✂ Users can be at any location
- ✂✂ All users are able to see activities of active user in real-time.

The project team scope was focused on RatingsSheet Module in AliahTHINK!<sup>TM</sup> v5.0. Particular requirements for the RatingsSheet!v5.0 were as below:

- ✂✂ The appearance and the data should be separate. The content expressed in the RatingsSheet may be provided either through an external XML document available by URI or through an XML document passed directly to the RatingsSheet Interface as a string
- ✂✂ The RatingsSheet should be able to support display of background images or movie files as against only the traditional text as in the RatingsSheet used in AliahTHINK!<sup>TM</sup> v4.0
- ✂✂ The look and feel of the RatingsSheet should be totally dynamic and should be rendered according to the appearance attributes provided in the XML document. For e.g., the interface should not hardcode the colors of the RatingsSheet. The color combination would be mentioned in the XML and the interface should be able to adapt to these parameters.

⚡⚡ All other communication between the RatingsSheet interface and the server should be via XML. In essence, the RatingsSheet must be able to encapsulate its content in an XML format and provide this resultant document to an outside source via an API function.

Based on all the above criteria and the current legacy system of AliahTHINK!<sup>TM</sup>v5.0, the project team and Decision Coaches decided to build the RatingsSheet interface in Flash MX, Action Script and XML. J2EE and Sybase database was decided for the back-end functionality.

### **Challenging Development Aspects**

Flash MX and Action Script were fairly new technologies for the team to work on. It was a steep learning curve on the part of the technical team to have a good grasp over Flash MX. Flash MX being unconventional graphical user interface, posed several challenges in providing the extent of flexibility required by the client. But as the team got a grip over Flash, it soon realized its technical ability to be as flexible as possible. Using Action Script, the team parsed the incoming XML and rendered the Flash screen accordingly. Learning Flash and Action Script took the team over 2 weeks, but finally were successful to render the user interface to the satisfaction of the clients.

Other challenging aspect for the technical team was incorporating Sybase as a database with the J2EE server. The client used Sybase as its traditional database as against cloudscape that comes bundled with J2EE server.

One more interesting development aspect was using XML as the communication media between all the components of the RatingsSheet v5.0. This needed the team to use SAX and XML Parsers in Flash, Entity Beans and the socket Server.

## VI. Conclusion

Over the course of four months, the team successfully managed the technical and business aspects of the project. This included the completion of the RatingsSheet with all the desired features, as well as the business aspects including the development of a mission statement for Decision Coaches.

The team has also prepared an interview questionnaire for the current customers of the company and incorporated its findings into the AliahLISTEN!<sup>TM</sup> process. Through the process, the actual perception of Decision Coaches and its services by the customers were obtained and evaluated. The team has developed recommendations for Decision Coaches based on all the information gathered both from their customers and throughout the semester during informational meetings with the company.

The final deliverables to Decision Coaches included a prototype of the RatingsSheet, final report and a comprehensive user manual documenting system requirements, system functionality, installation and administrative instructions. The final report included all the findings and results of business aspects incorporated into the AliahMISSION!<sup>TM</sup> and AliahLISTEN!<sup>TM</sup> templates of AliahTHINK!<sup>TM</sup> software.

The first and the foremost reason the team used Decision Coaches' software for evaluating the business aspects was that it believed in the usefulness of the Analytic Hierarchy Process and the "coaching" service DC has provided. We learned how to go through an AliahTHINK!<sup>TM</sup> session from our client and then applied our knowledge to our business findings on their behalf. This fact has also contributed to the process in the sense that the team was more objective in evaluating Decision Coaches than what the company could have done themselves.

Secondly, the company already has a culture of its own; therefore, it was easier for our team to communicate with the people in the company as long as we were talking the same language as they did. And the AliahTHINK!<sup>TM</sup> software and processes has turned out to be the common language between the two parties.

We were provided by the MISM program's combined technology and business approach with the skills necessary to manage development of the RatingsSheet and the relevant business approach. Still, it was the application of these skills through clear communication, group decision-making, dedication and innovative approaches that enabled this project to succeed.

## VII. References

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