SUBJECT MATTER EXPERT SERVICES
VIA ONE-STOP-SHOP WEBSITE

A Project Report

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By

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ABSTRACT

In today’s economy there are many trends that occur in the natural evolution of business. First is the trend of increasing online commerce. As we move more toward an internet society business has naturally followed by offering more and more services online. Another trend that is not so evident is the increased use of contract talent. As a recession continues in the US the use of contract talent has increased and may mark a shift in hiring. This project intends to capitalize on the mentioned trends by promoting an online service which businesses can use to locate and hire freelance professionals. Additionally the service will allow businesses to process outsourced projects through an online interface. This report will present a literature survey of successful web services and important features they contain. Also included in our report is a comparison with competitors’ services, and a proposed layout of our service. The project will also show a current market analysis, economic justification for the service, and a description of how the service is structured to be a One-Stop-Shop for hiring subject matter experts and completing projects.
ACKNOWLEDGEMENTS

I would like to thank the following individuals who contributed to the completion of this project. First, I would like to thank my Industrial Adviser Mr. Joel Jacobson, for providing his expertise and knowledge in support of this project. Also, I would like to express my appreciation to my Academic Adviser Dr. Oliver Yu, for his guidance and cooperation during this Master Project course. Lastly, I would like to express my gratitude to my fellow classmate Charles Kinzer, for his unwavering support and commitment to seeing this project through to completion.
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1 Introduction

When small businesses and start-up companies begin operation they face many tough challenges as they try to grow and succeed. Quite often when a small business begins operating their initial employees contain a specific skill set for their target market. What are usually lacking are the additional skills necessary to grow and improve a business. Unlike large corporations that rely on the skills of many employees, small companies have to be resourceful in filling the skills they lack internally. For tech companies some of the skills that are initially lacking tend to be in marketing, sales, and accounting. In general small business stakeholders need to determine which areas their company is weak in. Once this is determined companies can do one of three things. First they can hire a full time employee or employees to fill necessary skill sets. This can be very costly for companies just starting off and is most likely not an option. Second, a small business can rely on existing employees to wear multiple hats and fill in as best as possible. This second option can become distracting and reduces the amount of time an employee spends using their primary or core skills. Finally small businesses can fulfill necessary skills and expertise by outsourcing. This project focuses on the outsourcing aspect of the business.

1.1 Defining the Subject Matter Expert

When a small business outsources a project they use outside resources to complete work. These outside resources are often consultants, contractors, freelance professionals, or contract talent. Regardless of who they are, the resources are usually selected because they are subject matter experts in their fields. Therefore for this project we shall refer to all these outside resources as Subject Matter Experts or SME. As for those small businesses and start-ups who hire SMEs we will refer to them as Clients.

1.2 Description

Small businesses that require outside resources have to conduct a search to locate the required Subject Matter Experts (SME) for their project. This search frequently consumes precious attention away from primary activities and can often cause significant project delays in implementation. Additionally, the client must negotiate compensation and a work mode for
the SME: how much will the SME cost and is the SME going to be a short term direct hire, a consultant, an employee of a consulting firm or some other arrangement? Issues surrounding such decisions complicate the client’s effort to obtain the required SME support in a timely fashion.

Currently, a client search for a SME can range from simply picking up the yellow pages to find a Certified Public Accountant; to making phone calls to consulting firms; to calling university department heads; to hiring a head hunter; etc., in order to locate the individuals or team of individuals with the correct skill sets. Phone calls and interviews are needed to down-select the pool of eligible SMEs and verify the selected individual is a good match. This effort can become a major diversion of a client’s focus from other important tasks at hand.

We believe that creating a new web based service which is a one-stop-shop for rapidly locating, hiring, and processing work with SMEs, would be a popular and lucrative business. The site would incorporate features from the many established services websites. The use of the same site for processing technical work between a client and SME would make it superior to all other sites currently operating.

1.3 Objective

Our objective is to research current online services and create a requirements document for our new website. For our study we will be doing a comparative analysis between web based freelance services and our proposed site. Also we will analyze other popular service websites and any standout features that make these sites successful. We will look at how those features work. Next we will be proposing a way to combine the top features in our new site. Also, new features that our study deems necessary will be added to our proposed site.

The web approach our project proposes should significantly mitigate, or eliminate, the problems currently faced when an organization needs the services of a SME. This process will help clients significantly reduce both monetary and hidden costs associated with hiring contract talent. The proposed website for remote management of SME services is more convenient and
efficient as it does not incur the same costs of locating, selection, risk, and negotiations currently involved in obtaining SMEs.

1.4 Scope

The scope of this project is centered on defining a web based service for finding and outsourcing technical projects. For the purpose of this project we have limited our web service offerings to two fields; Statistics and Accounting. Also, we plan for this report to act as a requirements document that includes a proposed layout for our website. Ultimately this document is to be followed by a web designer to start building a fully functional web site. Additionally, this project will include justification for our web based service.
2 Literature Review

2.1 Strategic Aims of the Literature Review

The ultimate goal of our literature review is to gather as much preexisting insight on issues of critical value to our effort to construct a web service which will enable clients to conveniently obtain and use the services of Subject Matter Experts (SMEs).

Among the areas we investigated were: current reporting by the media on the demands for contract talent, successful website based features, and online based file storage services.

2.2 Successful Web Based Services

As part of our literature search we analyzed other popular websites and reviewed some of those features that make these sites successful in their respective service.

2.2.1 Amazon

Amazon.com is the US leader in e-commerce. It offers the Earth's Biggest Selection and seeks to be Earth's most customer-centric company, where customers can find and discover anything they might want to buy online, and endeavors to offer its customers the lowest possible prices (Amazon, 2010).

2.2.1.1 Amazon Search

Due to the fact that Amazon.com offers the biggest selection of items to purchase it must also have an efficient way for customers to search and find items they are looking for. Amazon’s website achieves this two ways. First it uses a keyword search function that can be narrowed down by specific departments. Second it has a detailed item browser. The strength of this browser is based on the detailed categorization of items. Items are categorized based on the type of product. For example the following is the how laptops are categorized:
Additionally product searches can be filtered on the fly based on multiple key features of a specific product. For example when looking to purchase a laptop through Amazon.com, a customer can search and filter based on the following key features:

1. Brand
2. Operating System
3. Display Size
4. Processor Type
5. Processor Speed
6. Installed RAM
7. Hard Disk Size
8. Price

When reviewing the web page layout all search functions are conveniently located on the left hand side, with all filter options displayed as well. This type of search and filter allows for a very straightforward method to locate items.
2.2.1.2 Amazon Reviews

Another feature that makes Amazon highly successful is its use of product reviews. It is very likely that the use of these reviews help customers determine which products to purchase. After analyzing their review system we determined that there are three main features which make Amazon’s reviews popular:

1. Customer Testimonial
2. Review Helpfulness
3. Customer Based Product Rating

First, Amazon allows customers to enter their first hand experiences with the product. These testimonials are limited to 5000 words, which enables customers to enter plenty of detailed information about their experiences. This in turn allows for more helpful reviews. Second,
Amazon uses a voting system for reviews. This is sort of a rating for reviews. Customers who read reviews can rate which ones are most helpful to them. Amazon then places the most helpful favorable review and the most helpful critical review at the top of the review page for each product. Again, this helps reduce the time spent reading short, generic, and overall poor product reviews. Last there is the product rating. For this part of the customer review, products are rated on a scale of 1 to 5. The average rating is then listed at the top of the review page along with the number of reviews used to calculate the average. These three features at the top of the page allows for a potential customer to get plenty of independent information on products they are considering to purchase.

2.2.2 Turnitin.com

Turnitin.com is a popular educational services website. It began as Plagiarism.org, the world’s first Internet-based plagiarism prevention service (Barrie, 2011). Although its primary purpose is as a plagiarism checker it offers additional tools for assignment management and file uploads. These tools allow an instructor and their students to interface remotely. Course assignments can be given to students using an assignment portfolio. The portfolio lists out the following important items:

1. Class assignments
2. Due Date
3. Status

Figure 3 - Amazon Product Reviews
4. Details

5. Submit Options

The **Class assignment** refers to the title of the assignment. **Due Date** is the deadline for when the assignment is due. **Status** indicates whether an assignment is completed, due, or incomplete. **Details** list out any additional instructions for the assignment and whether late submissions are allowed. **Submit Options** is the most useful feature included in turnitin.com. This feature allows students to submit softcopies of their completed assignments online. These submitted assignments can then be downloaded by the instructor. After the instructor downloads the assignment it can be graded and feedback given to the student. With all the functionality of a website like turnitin.com it is no longer necessary to require meeting in person. Students and instructors can conduct business remotely regardless of their location.

<table>
<thead>
<tr>
<th>START</th>
<th>DUE</th>
<th>POST</th>
<th>STATUS</th>
<th>ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAPER</td>
<td>02-19-11 2:34PM</td>
<td>03-04-11 8:00PM</td>
<td>03-05-11 12:00AM</td>
<td>Submission for this assignment is complete</td>
</tr>
</tbody>
</table>

**Figure 4 - Turnitin Assignment Details**

### 2.3 Online File Services

The storage and sharing of files online is a necessary tool for outsourcing project work to remote resources. Therefore it is important to review what sites are currently available that offer online file storage. The two most commonly known sites are Yahoo Groups and Google Docs. Both sites offer free file storage and files can be shared between multiple users. Also, as
part of their service turnitin.com uses file storage to help with the administration of assignments. The table below summarizes the limits each service has on file uploads and storage.

<table>
<thead>
<tr>
<th>Service</th>
<th>File Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yahoo Groups</td>
<td>Maximum file size is 5MB. Maximum total files size is 100MB. Unlimited file types.</td>
</tr>
<tr>
<td>Turnitin.com</td>
<td>Maximum file size is 20MB. File types limited to MS Word, WordPerfect, Postscript, PDF, HTML, RTF, and plain text.</td>
</tr>
<tr>
<td>Google Docs</td>
<td>Maximum file size is 1024MB. Maximum total files size is 1024MB. Unlimited file types.</td>
</tr>
</tbody>
</table>

Table 1 - File Management Limits

Finally, when considering the use of Yahoo Groups and Google Docs for uploading and storage of files it is important to determine the privacy and confidentiality provided by large public sites. During our review of both sites’ privacy policies we were not able to determine the security level of documents uploaded to their site or the use of any encryption during the upload/download process.
3 Market Analysis

3.1 Hiring Trends

For us to justify the need for an online SME service we must look at the trends of contract hiring. One valuable study we found was conducted by the Human Capital Institute titled “Contract Talent, An Imperative for Talent Management in the New Normal” (Ratkiewicz, Mellish, & Krekeler, August 2010). Over 200 organizations were surveyed for the study in 2008, with an additional survey conducted in 2010. According to this study 90% of the companies they surveyed employed contract talent. Also from 2005 to 2008, 38% had increased their use of contract talent. Another finding was that the pool of part time workers was growing at twice the rate of full time employees. One of the most important findings in the study was that a majority of the companies surveyed indicated that identifying high quality individuals was the biggest challenge they faced in acquiring contract talent. Based on the survey results, we can conclude that the development of our SME service will definitely fill a need in the current market.

3.2 Unemployed Professionals

In-order to have a successful web based service we must build a large SME database for potential clients to search. A primary concern is: can we fill our database with subject matter experts for hire to adequately meet client demands? Looking at employment trends we believe that with the current high level of unemployment, filling our database will not be an issue. The current economic slump has spurred the growth of contract workers (Koba, 2009). While there has been a downward trend in production and manufacturing jobs for some time, it is those who work in the technical and educational fields that are of interest for our project. According to the Bureau of Labor Statistics, over the past 5 years, people employed in the following sectors have also sustained a high amount of employment losses: Professional and Business, Information, Financial, and Education. The graph below shows the national unemployment levels over the past 5 years of those sectors mentioned.
We can see that many highly educated people are without employment in the current market. This unemployed workforce is our target market for filling our SME database. This is based on the assumption that people who are unemployed are willing to take on part time work in order to maintain some income level. Especially since working part time might lead to a full time position. Next it would be important for us to look at the levels of people working part time due to economic reasons. The Bureau of Labor Statistics categorizes people working part time due to economic reasons as the following: slack of work or business conditions, could only find part-time work, or seasonal work. The chart in figure 6 shows the growth of people working part time due to economic reasons and is limited to nonagricultural industries. This growth will supply our database of SMEs and become a valuable asset to those workers.
Another segment of workers our website will be targeting are those individuals who work part time due to non-economic reasons. This consists of retired professionals, individuals who are in school or individuals who have other family obligations like caring for children. This class of workforce is not looking for a full time position, and prefers to work on a contract or part-time basis. It is also likely that these individuals highly value the ability to work remotely.

A good example of an educated workforce that prefers to work on a part-time basis is that of the law firm Montage Legal Group. The Orange County based firm is a network of freelance attorneys who do legal projects on a contract basis. The goal of this firm is to provide flexibility and support for attorneys, and clients, as well as excellent legal services at a fraction of law firm rates (USA Today, 2011). All the attorneys in the firm are highly educated and able to do the work of full time law associated at a fraction of the cost. The founders created the law firm to

![Figure 6 - Part Time Employment](image-url)
enable them to practice law while raising their children. This enables them to have a balanced work/family life.

We believe our web service will work well for those people looking to balance their employment with their family responsibilities. People who take on project work from our service can do so knowing that our service is geared towards people that want to work from home.

3.4 Employment Correlation

For our online service to be successful it must maintain an available supply of SMEs. One assumption is that high unemployment will lead to a large pool of professionals willing to work on a contract basis. Another assumption is that a good portion of people who work on a contract basis prefer it over working a full time position. Therefore it is best to do a comparison with the number of people working part time and the number of people unemployed. For this, we analyzed actual historical data obtained from the Department of Labor and the Bureau of Labor Statistics (BLS).

One way to compare data is to see how they correlate with each other. Correlation analysis helps to measure the strength of the relationship between two variables (Walpole, Myers, Myers, & Ye, 2002). This strength is characterized by a single value called the sample correlation coefficient ($r$). This correlation coefficient is calculated using the equation below:

Equation 1 - Pearson Correlation Coefficient

$$ r = b \frac{S_{xx}}{S_{yy}} $$

Using this equation the correlation coefficient must be within the range of -1 to +1. A correlation coefficient of +1 between two variables refers to a perfectly positive linear relationship. A correlation coefficient of -1 refers to a perfectly negative linear relationship (or two variables that act exactly inverse of each other). We can now use this equation to study employment and unemployment levels.
To begin our analysis we review the data on those people who are working part-time. The Bureau of Labor Statistics counts the number of people working part-time and divides them further into two categories: those who work part-time due to economic reasons and those who work part-time due to non-economic reasons. We assume most of the people in this category are willing to take on contract work in order to maintain some level of income. Therefore, we must consider this pool of contract talent and see how it relates to unemployment levels. One way to do this is by calculating the correlation coefficient between the national unemployment level and the number of people working part-time due to economic reasons. The table below lists this info on a yearly basis along with their corresponding correlation coefficient for all years in a given sector. The data is limited to specific sectors of the work force that are well suited to use an online service to find contract projects and work remotely.

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<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
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<td>72</td>
<td>62</td>
<td>59</td>
<td>61</td>
<td>83</td>
<td>120</td>
<td>116</td>
<td>0.986</td>
</tr>
<tr>
<td>Financial</td>
<td>131</td>
<td>115</td>
<td>99</td>
<td>120</td>
<td>122</td>
<td>159</td>
<td>219</td>
<td>212</td>
<td>0.954</td>
</tr>
<tr>
<td>Professional</td>
<td>421</td>
<td>407</td>
<td>399</td>
<td>350</td>
<td>367</td>
<td>482</td>
<td>692</td>
<td>728</td>
<td>0.994</td>
</tr>
<tr>
<td>Education</td>
<td>632</td>
<td>664</td>
<td>642</td>
<td>603</td>
<td>620</td>
<td>765</td>
<td>1202</td>
<td>1318</td>
<td>0.986</td>
</tr>
<tr>
<td>National Unemployment</td>
<td>8774</td>
<td>8149</td>
<td>7591</td>
<td>7001</td>
<td>7078</td>
<td>8924</td>
<td>14265</td>
<td>14825</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 – Part Time Due to Economic Reasons

Looking at the coefficient for those sectors that are of interest to us, we see that people working part-time in the Professional sector are most positively correlated with the national unemployment level. In general, all sectors that we studied were highly correlated with the national unemployment level. This would lead us to conclude that when unemployment is high there will be a large pool of people available to work contract positions, which bodes well for our online service. The high correlation also means that when unemployment is low there will be less people available to sign up for our online service. We must therefore look for another population of individuals to fill our database of contract talent when the employment environment improves.

It is best to consider those individuals who prefer to work part time as good candidates to fill our database of SMEs. We will define these people as those who work part-time due to non-
economic reasons. Good examples of this class is people who are retired and wish to continue some level of employment, or people who have family obligations, like taking care of children, but also want a part-time income. How is this class of individuals affected by the national unemployment level? Can they be counted on to use services like ours to find contract projects? Again we start by looking at the data from the BLS on people working part time due to non-economic reasons.

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<th></th>
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</tr>
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<tbody>
<tr>
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<td>354</td>
<td>381</td>
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</tr>
<tr>
<td>Financial</td>
<td>833</td>
<td>856</td>
<td>879</td>
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<td>859</td>
<td>746</td>
<td>735</td>
<td>667</td>
<td>-0.896</td>
</tr>
<tr>
<td>Professional</td>
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<td>1265</td>
<td>1268</td>
<td>1303</td>
<td>1317</td>
<td>1286</td>
<td>1155</td>
<td>1146</td>
<td>-0.974</td>
</tr>
<tr>
<td>Education</td>
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<td>4884</td>
<td>4840</td>
<td>4800</td>
<td>4986</td>
<td>4989</td>
<td>4975</td>
<td>4912</td>
<td>0.360</td>
</tr>
<tr>
<td>National Unemployment</td>
<td>8774</td>
<td>8149</td>
<td>7591</td>
<td>7001</td>
<td>7078</td>
<td>8924</td>
<td>14265</td>
<td>14825</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 – Part Time Due to Non-Economic Reasons

Reviewing the correlation coefficients we see that they are not as consistent as the previous factors in Table 1. In fact we see that there are two sectors that are positively correlated with the national unemployment level, and two that are negatively correlated. It is of interest to note that again the Professional sector is the most correlated with national employment, but in this case the coefficient is negative. We can therefore generalize the relationship as follows: when national unemployment drops the number of Professional Contract Talent who prefer part-time employment will rise. This again suites our online service well. Another important assumption that can be made based on these correlation factors is that people who prefer working part-time in the Education sector are not affected much by unemployment levels. This is something to consider when starting our online service and decided what services to initially offer.
4 SME Service Architecture

4.1 Process Workflow

The process by which clients and SMEs interact is summarized by six steps. The six steps are listed in the chart below and a further explanation of each is given.

PROCESS WORKFLOW

1. **Client – Search and Select SME**
   - This is the initial phase of our online service. There will be no service charge to search and find SMEs, as it is important to get clients into the website and look around. The client will be able to contact SMEs in order give basic project info and develop terms for the project.

2. **Client – Submit Project Information and Payment**

3. **SME – Accept Project and Process Work**

4. **SME – Upload Completed Project**

5. **Client – Review and Accept Completed Project**

6. **All – Submit Ratings and Reviews**

   **Figure 7 - Process Workflow**

1. **Client – Search and Select SME**

2. **Client – Submit Project Information and Payment**
In this phase the client submits all his project information, any specific instructions, and funds for payment to the SME. Funds are kept by the site until the project work has been completed and approved.

3. **SME – Accept Project and Process Work**
   Given the project information, this is where the SME reviews the work to be done. If the payment terms are acceptable, the SME accepts the project and begins processing the work. Additionally during the work process the SME can submit updates, upload files, and communicate with the client.

4. **SME – Upload completed Project**
   At this stage the SME is completed with the work and uploads project files to submit them to the client.

5. **Client – Accept completed Project**
   This is where the client reviews the completed project to make sure it meets any agreements set with the SME. Once the project is approved, the SME receives payment from the funds submitted earlier in the process.

6. **Client/SME – Submit Reviews and Ratings**
   This is the final stage of the workflow. At this point the project is complete. The client will submit a rating for the service received and write a review. Likewise the SME can submit a rating and review for the Client.
4.2 SME Database

When searching for a SME, a client can search based on a list of detailed information contained in our SME database. Table 3 lists the minimum of information that we will have for each SME.

<table>
<thead>
<tr>
<th>Info Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td>A short summary submitted by the SME</td>
</tr>
<tr>
<td>Minimum Hourly Rate</td>
<td>The minimum hourly rate the SME is willing to accept</td>
</tr>
<tr>
<td>Degree</td>
<td>Any degrees the SME holds</td>
</tr>
<tr>
<td>Specialty / Concentration</td>
<td>Any specialties or concentrations related to their field</td>
</tr>
<tr>
<td>Certifications</td>
<td>Any certifications the SME holds</td>
</tr>
<tr>
<td>Experience in Field</td>
<td>The number of years working in their field</td>
</tr>
<tr>
<td>Location</td>
<td>Where they are geographically located</td>
</tr>
<tr>
<td>Languages</td>
<td>Languages they are fluent in. A primary language will be highlighted</td>
</tr>
<tr>
<td>Availability</td>
<td>Their availability percentage on a per week basis</td>
</tr>
<tr>
<td>Current Availability Status</td>
<td>A indicator of SME’s current work status</td>
</tr>
<tr>
<td>Customer Reviews</td>
<td>Number of customer reviews the SME has</td>
</tr>
<tr>
<td>Rating %</td>
<td>The SMEs rating from clients on a percentage scale</td>
</tr>
</tbody>
</table>

Table 4 - SME Database Information

Our search must be advanced in order to simplify finding a SME that suits the needs of the client. This will require a search function where results can be filtered on the fly.

When using the search to find a SME, the following filters are to be available and can be applied to help narrow or widen search results on the fly.
<table>
<thead>
<tr>
<th>Minimum Rate (USD)</th>
<th>Degree</th>
<th>Certifications</th>
<th>Experience (Years)</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; $25</td>
<td>AS/AA</td>
<td>CPA</td>
<td>1 to 5</td>
<td>Alabama</td>
</tr>
<tr>
<td>$25-$50</td>
<td>BS/BA</td>
<td>CFA</td>
<td>6 to 10</td>
<td>Alaska</td>
</tr>
<tr>
<td>$50-$75</td>
<td>MS/MA</td>
<td>CFP</td>
<td>11 to 15</td>
<td>Arizona</td>
</tr>
<tr>
<td>$75-$100</td>
<td>PhD</td>
<td>CMA</td>
<td>16 to 20</td>
<td>…</td>
</tr>
<tr>
<td>$100+</td>
<td></td>
<td></td>
<td>20+</td>
<td>Wyoming</td>
</tr>
</tbody>
</table>

Table 5 - Database Filter Definitions

<table>
<thead>
<tr>
<th>Languages</th>
<th>Availability (Per Week)</th>
<th>Current Availability</th>
<th>Customer Reviews</th>
<th>Rating %</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>0 – 25%</td>
<td>Available</td>
<td>1 to 5</td>
<td>0 – 50%</td>
</tr>
<tr>
<td>French</td>
<td>25 – 50%</td>
<td>Not Available</td>
<td>6 to 10</td>
<td>50 – 75%</td>
</tr>
<tr>
<td>Mandarin</td>
<td>50 – 75%</td>
<td></td>
<td>10 +</td>
<td>75 – 100%</td>
</tr>
<tr>
<td>Spanish</td>
<td>75 – 100%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6 - Database Filter Definitions (cont.)

4.3 Project Management Tool

The introduction of a project management tool is necessary in order to add value to our service. The purpose of the tool is to have a central location to manage all the functions of completing an outsourced project. The tool will contain the features and functions listed in Table 7.
### Feature Description

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary Page</td>
<td>A start page showing all the projects a client has posted to the site. This is the initial page the client will see when logging on to their account.</td>
</tr>
<tr>
<td>Details Page</td>
<td>A separate page for individual projects</td>
</tr>
<tr>
<td>Inbox</td>
<td>A client inbox for sending and receiving communications and notifications</td>
</tr>
<tr>
<td>Email Notifications</td>
<td>Notifications for various changes in project status</td>
</tr>
<tr>
<td>Calendar</td>
<td>A calendar showing milestones and Start/Finish Dates for all projects</td>
</tr>
</tbody>
</table>

**Table 7 - Project Management Features**

### 4.3.1 Summary Page

The Summary Page will show a list of all the ongoing projects the client is processing. It will contain the features described in the Table 8.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Name</td>
<td>The title of the project</td>
</tr>
<tr>
<td>Start Date</td>
<td>When work on the project has started. Commonly the date the project is accepted by the SME</td>
</tr>
<tr>
<td>Due Date</td>
<td>When work on the project is expected to be completed. Can only be updated by the client</td>
</tr>
<tr>
<td>Status</td>
<td>Displays if a project has been accepted or not accepted, in progress or completed, paid or not paid.</td>
</tr>
<tr>
<td>Details</td>
<td>A link to the details page of individual projects</td>
</tr>
</tbody>
</table>

**Table 8 - Summary Page**
4.3.2 Project Details Page

The Details Page is where all the project details are contained. It shall contain all the features listed in the following table. Each individual project in the Summary Page shall have its own separate Project Details Page.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Title</td>
<td>Title to be displayed at the top of the page</td>
</tr>
<tr>
<td>Project Summary</td>
<td>Info or instructions for the project</td>
</tr>
<tr>
<td>Resources</td>
<td>Name of SMEs assigned to the project</td>
</tr>
<tr>
<td>Budget</td>
<td>The amount budgeted for the project which will be paid to the SME. There shall be an indicator for when funds are deposited by the Client</td>
</tr>
<tr>
<td>Percentage Complete</td>
<td>A completion slider that is updated by the client. The client may also allow the SME to update this information</td>
</tr>
<tr>
<td>Tasks</td>
<td>A list of specific project tasks and dates they are expected/achieved</td>
</tr>
<tr>
<td>Status</td>
<td>The same as the Status in the summary page with the option to pay the SME with the submitted funds</td>
</tr>
<tr>
<td>Files List</td>
<td>List of uploaded files associated with the project</td>
</tr>
<tr>
<td>Ratings</td>
<td>After project is completed there will be option to rate the SME</td>
</tr>
</tbody>
</table>

Table 9 - Project Details Page

4.4 File Management

Another important feature of our service will be the availability of file management on the website. Listed in our literature review are the services offered by other sites. Two of the sites, Google Docs and Yahoo Groups, offer free file storage. Knowing this information we must add additional value to our site in order to promote the usage of the site by clients. With this in mind our file limits at a minimum must be:

1. Maximum File Size: 1 GB
2. Maximum File Storage: 5 GB
3. File Types: Unlimited
Additionally our File Management feature will have the following functionality:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add Files</td>
<td>Upload files up to 1024MB</td>
</tr>
<tr>
<td>Download Files</td>
<td>Download files stored on the site</td>
</tr>
<tr>
<td>Edit File List</td>
<td>Remove or rename files in the list</td>
</tr>
<tr>
<td>File Type</td>
<td>Upload files of any type</td>
</tr>
<tr>
<td>File Scan</td>
<td>A virus scan of the file</td>
</tr>
<tr>
<td>File Edit</td>
<td>Some supported file types will be allowed to be edited directly on the site. This includes .doc, .xls, and .rtf</td>
</tr>
<tr>
<td>Permissions</td>
<td>Allow SMEs various read and write file permissions as decided by the client</td>
</tr>
</tbody>
</table>

Table 10 - File Management Tool

4.5 Payment Processing

Payment processing is a key function that will allow us to generate revenue. Since our revenue is on a per project basis payment processing establishes a point of transaction between the client and SME that allows us to collect a fee. The payment processing function will also reduce the client’s efforts to hire a SME. The client will only need to maintain one account with our service which can be used to pay various SMEs. This account will act analogous to an escrow account between the client and SME. Project funds are to be deposited before work on the project begins. When the project is completed and the client accepts the deliverables the project funds are charged the service fee and the remainder is paid to the SME. As part of the service a 1099-MISC form will be generated for each SME that receives payment of $600 (per IRS) or more through the site. The overall payment process is illustrated in Figure 8.
4.6 Web Design

The following figures show a proposed layout of the Project Summary and Project Details pages. It is intended to show the necessary features in graphical form. Ideally the requirements listed are to be reviewed, updated, and implemented by a web designer in a contemporary web design.

Figure 8 - Payment Process Overview
Figure 9 - Project Summary Layout
4.7 Competitive Comparison

While investigating possible competitors we came across the website Freelance Switch that had compiled a lengthy list of freelance sites and showed each sites listing types. From this site we selected a few that offered similar services as we intend to offer as part of our online service. Two of these sites were Freelancer.com and Ifreelance.com. Both sites offer the ability
to search and find Contract Talent for hire and have a large presence on the internet. Also we decided to include Craigslist as a potential competitor due to its lists of Job Gigs and Resumes on its site. Craigslist represents the many similarities with other sites that enable clients to search for SMEs through free online postings. We listed out those features we plan to include in our service and compared it with our competitors’ offerings.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Craigslist</th>
<th>IFreelance</th>
<th>Freelancer</th>
<th>SME Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free for Clients to Search / Post</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Free for SMEs to Search / Post</td>
<td>✔</td>
<td></td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Detailed SME Database</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Advanced Filter Based Search</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>SME Ratings &amp; Reviews</td>
<td>✔</td>
<td></td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Client Ratings &amp; Reviews</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Project Management Tool</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>File Upload &amp; Download Tool</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Payment Processing</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
</tbody>
</table>

Looking at the feature comparison table it is clear that competitors’ offerings are less than what we intend. The additional functionality of our service is part of our goal to make the website a one-stop-shop for outsourced projects.

### 4.8 Comparative Advantage

When describing a comparative advantage for our service it is reasonable to look at the process of online outsourcing by methods other than our SME service. One can expect to use a variety of resources or services during the process. For example, a client first has to locate a suitable SME. Next the client has to use some method to interface with a SME. If the transfers
of any files are necessary, a client would have to determine the best mode. Finally when a project is complete the client would have to pay a SME. The complexity of the different services or resources used is illustrated in Figure 12.

![Figure 12 - Services or resources used for Online Outsourcing](image)

The process can be greatly simplified by the use of just one site for all of a client’s online outsourcing needs. Overall the comparative advantage of our new service can be summarized by these six items:

- **Convenient**: “One-Stop-Shop”
- **Reduces complexity**: Brings order to chaos by eliminating the “Treasure Hunt”
- **Scalable**: As the complexity of SME grows, this approach should continue to work
- **Flexible**: Can construct SME teams from large supermarket
- **Efficient**: Quantum leap in search cost reduction
- **Focus preserving**: Allows customer to maintain managerial focus on main business
5 Economic Justification

5.1 Executive Summary

In the current state of business and technology there are two trends that we intended to take advantage of and profit on. First is the explosion of the internet. The world’s usage of the internet has grown 444% over the past ten years (Miniwatts Marketing, 2010). With the exponential growth of the internet, the popularity of it for business and e-commerce has grown as well. Second, a lesser known trend in business is the increased use of contract talent in the market. Over the past four years companies’ use of contract talent has increased 38%. With both trends in mind we plan on building a web based service where by companies looking to outsource work to contract talent can do so online. The economics of this business are summarized in the following list.

- The cost of hiring a full time employee has increased and is outside the budget of many small businesses and start-ups
- Finding quality outsourcing resources is time consuming and distracting
- Additional tools are required to conduct business with a remote resource
- Our service simplifies the process of online outsourcing by creating a one-stop-shop for finding talent and completing outsourced projects online
- The use of our service reduces expenditures a company would otherwise spend on full time employees
- We plan on starting our service by penetrating the market for freelance statistical and accounting services, which is estimated at $11 Billion
- Our competitor’s services have less functionality when compared to our offerings
- A initial investment of $750,000 over the course of two years is needed to begin and grow our operation
- Our revenue by the fifth year of operation is estimated at $20 million
- We plan to break even in the third year of operation with a positive ROI of 55% in the fourth year of operation
5.2 Problem Statement

The problem that our web based business intends to address is when a small business or company is in need of a Subject Matter Expert that is not available in house, searching and hiring someone can be expensive and turn into a treasure hunt. Often the process is inconvenient, frustrating, costly, and a distraction from the core effort of a company’s project or process. This is especially true of start-up business with limited resources to work on administrative projects, or projects that are outside the primary mission of the business.

5.3 Solution & Value Proposition

The solution our new company offers can be summarized by three goals our proposed service plans to achieve. One of our goals is that we will create a service that allows customers to contract out work that requires technical expertise. This would primarily consist of contract work that clients would not have the time or in-house expertise to complete. For the purpose of starting our business, we will be concentrating specifically on work that requires statistical and accounting expertise.

The next goal of this company is to enable a client to efficiently find the right technical expertise using our service. For this part of the business, a website will be developed to enable the client to locate the right expertise for hire. The site will be based on the popular e-commerce site Amazon.com with easy to use navigation, simple order processing, and available ratings on services rendered.

The final goal of our company is to allow small businesses to use technical expertise without the need of hiring a full time employee. Often employment costs for technical positions can be costly and prohibitive for small business. When considering the costs of full time employees, employers must take in account both salary and benefits. According to the figure below from the BLS, the average benefits cost for employers is 31.4% of the total cost.
The site would enable small businesses to complete technical projects while using SMEs on demand, therefore significantly lowering their costs on technical projects or processes. This reasoning is further justified by article titled, “Work to your Strengths and Outsource to your Weaknesses” (Grimes, 2010). According to this article many startups have a specialized skill set that enables them to enter the market. They may also have a basic skill deficit that they need to fill in order to evolve as a business. Using SME services through our site would help fill that skill deficit at a minimal cost and in a highly convenient manner.

Based on our current model of contracting out technical expertise using our website, there are significant costs savings to be considered. When hiring a single full time master degree level statistician, one has to look at employment costs due to salary and benefits which is illustrated in Figure 14. While the average salary for a federally employed statistician in 2008 was $92.3K, (Bureau of Labor Statistics, 1996 thru 2011) employee benefits also add a large cost factor. When these benefits are factored in at 29% of employment costs, the total average cost to employ a statistician increases to $119K. When considering small businesses that are starting off, hiring a full time statistician is often not an option.
5.4 Market Size

With data from the Bureau of Labor Statistics, we have estimated the potential market size of freelance statisticians and accountants in the US, and developed market goals based on this information.

<table>
<thead>
<tr>
<th>Employment in 2010</th>
<th>Salary</th>
<th>Estimated Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountants</td>
<td>1,290,600</td>
<td>$102,380</td>
</tr>
<tr>
<td>Freelance Accountants</td>
<td>103,248</td>
<td>$102,380</td>
</tr>
<tr>
<td>Statisticians</td>
<td>22,600</td>
<td>$107,015</td>
</tr>
<tr>
<td>Freelance Statisticians</td>
<td>3,390</td>
<td>$107,015</td>
</tr>
</tbody>
</table>

Table 11 - 2010 Accountant & Statistician Employment

By looking at the data, and multiplying employment size with average salary, we have estimated the market size for freelance accountants at $10.6 Billion. As for the market size for
freelance statistical services, we have estimated this at $362 million. All information used to calculate market value comes from data collected for individuals employed as Statisticians or Accountants as described in the Dictionary of Occupational Titles (DOT) and does not include those people doing statistical accounting work under different titles. Below is a comparison of the markets in terms of size.

![Estimated Market Size](image)

We feel that these market estimates are conservative because of the high possibility that professionals with statistical and accountant skills may be counted as working in other related occupations.

### 5.5 Competitors

In our industry there are many competitors that offer some type outsourcing services. These competitors range from sites that provide a wide array of web postings including freelance projects, to sites that specifically deal with offering online outsourcing. We have decided to discuss specifically the largest competitors whose primary service is online outsourcing.

First there is iFreelance.com. This site is part of a portfolio of sites operated by Internet Brands®. In 2009 their revenue was $66.2 million for their Consumer Internet segment and
includes revenue from other such sites as autos.com and carsdirect.com. The primary source of revenue from the Consumer Internet segment is from the sale of advertising on their sites. As of 2009 they have 48,000 advertising customers. The company is located in El Segundo, CA and was recently purchased by the private equity firm Hellman & Friedman. The next competitor we reviewed was Freelancer.com. This is a company whose only business is their online outsourcing websites. Since they started in February 2004 they have processed $87 million in outsourced projects and have 2.4 million users, which include both freelancers and employers. The company is headquartered in Sydney, Australia and is privately owned.

5.6 Customers

For our service there are two different types of customers. First there is the Client. This is anyone who is outsourcing projects through the use of our website. It will primarily consist of small privately owned businesses or start-up companies, but can be any business that does not have the resources in-house to complete specific tasks. Next there is the subject matter expert. These are educated professionals who wish to do freelance work in order to supplement their income or maintain a part-time level of income. Without client customers submitting project work or SME customers working on outsources projects, our service would not succeed.

5.7 Costs

5.7.1 Prototype Costs

For the initial bring up of our service, various costs are incurred for the development of a prototype service. These costs are outlined in the table below and are strictly for testing our prototype service during the development phase.

<table>
<thead>
<tr>
<th>Prototype Item</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Website Design</td>
<td>$500</td>
</tr>
<tr>
<td>Website Hosting</td>
<td>$200</td>
</tr>
<tr>
<td>Database Infrastructure</td>
<td>$400</td>
</tr>
<tr>
<td>Database Hosting</td>
<td>$ 84</td>
</tr>
</tbody>
</table>
5.7.2 Fixed Costs

After successfully prototyping our proposed service, we have estimated the initial start-up and fixed operating costs if the service were to be fully developed and expanded over the course of five years. These fixed costs are outlined in the tables below.

<table>
<thead>
<tr>
<th>Fixed Operating Costs per Year</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Website Hosting</td>
<td>$4,200</td>
</tr>
<tr>
<td>Website Maintenance</td>
<td>$1,080</td>
</tr>
<tr>
<td>Database Hosting</td>
<td>$600</td>
</tr>
<tr>
<td>Data Encryption</td>
<td>$500</td>
</tr>
<tr>
<td>Rent</td>
<td>$18,360</td>
</tr>
<tr>
<td>Utilities</td>
<td>$3,888</td>
</tr>
<tr>
<td>License/Legal</td>
<td>$2,000</td>
</tr>
<tr>
<td>Administrative</td>
<td>$3,000</td>
</tr>
<tr>
<td>Misc</td>
<td>$5,000</td>
</tr>
<tr>
<td><strong>Total Fixed Operating Costs</strong></td>
<td><strong>$38,628</strong></td>
</tr>
</tbody>
</table>

Table 13 - Fixed Operating Costs

<table>
<thead>
<tr>
<th>Initial Start-Up Costs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Design</td>
<td>$1,500</td>
</tr>
<tr>
<td>Database Design</td>
<td>$5,000</td>
</tr>
<tr>
<td>Office Furniture</td>
<td>$3,000</td>
</tr>
<tr>
<td>IT Equipment</td>
<td>$8,000</td>
</tr>
<tr>
<td>Legal</td>
<td>$1,500</td>
</tr>
<tr>
<td><strong>Total Start-Up Costs</strong></td>
<td><strong>$19,000</strong></td>
</tr>
</tbody>
</table>

Table 14 - Initial Startup Costs
For hosting of the website and the database, this is relatively inexpensive, and based on current rates charged by professional online hosting services. The use of a hosting service significantly reduces overhead cost as there is no in-house server equipment to purchase, install, and maintain. For encryption of data the cost for this portion is based on annual licensing of popular encryption software that is intended for use by teams of people working in separate geographical locations. Rent is based on a 1,800 square foot office that rents for $0.85 a month per square foot and utilities of $0.18 a month per square foot. All fixed operating costs listed are recurring yearly costs. The initial start-up costs are onetime costs that occur in the first year of operation. These funds are used to setup a small office supporting five to ten employees.

5.7.3 Variable Costs

During the operation of our service there are variable costs that we have estimated for a five year span. These costs are listed in the table below:

<table>
<thead>
<tr>
<th>Variable Recurring Costs</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages &amp; Benefits</td>
<td>$425,000</td>
<td>$501,500</td>
<td>$591,770</td>
<td>$698,289</td>
<td>$823,981</td>
</tr>
<tr>
<td>Marketing</td>
<td>$20,000</td>
<td>$15,000</td>
<td>$10,000</td>
<td>$8,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>Data Storage</td>
<td>$6,000</td>
<td>$7,200</td>
<td>$8,640</td>
<td>$10,368</td>
<td>$12,442</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$451,000</td>
<td>$523,700</td>
<td>$610,410</td>
<td>$716,657</td>
<td>$841,422</td>
</tr>
</tbody>
</table>

Table 15 - Variable Costs

As our business grows we plan on adding additional employees to support our operations. We have accounted for this increased employment costs as a variable cost. Also as the number of clients using our service grows so will the demands for storage space as part of our file management tool. We have estimated the costs for the increase need for storage space. Lastly as the presence of our service becomes well know on the internet we plan to decrease our expenditures on marketing and advertising.

5.8 Price Point

Since our product is a service our price point is set as a percentage of the cost of each project processed using our website. This enables us to offer the initial search and posting phase of the service for free. At the initial launch of our service we will be charging a 12% fee on projects completed. We have based this fee on our nearest competitor, Freelancer.com,
which charges a 10% fee. We believe the additional 2% our company will charge is justified by
the additional features that will be offered by our service, which are not available with the
competitor’s service. Our fee will be deducted at the payment phase from the funds deposited
for the project. No additional fees for posting projects, searching the database, and so forth will
be charged.

5.9 SWOT Assessment

We have conducted a SWOT analysis for our new business in order to determine the
Strengths, Weaknesses, Opportunities, and Threats associated with starting our SME service.
This assessment will help identify the internal and external factors that are favorable and
unfavorable to achieving our objective (Wikipedia, 2011).

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provide convenience to Client</td>
<td>• Difficulty in recruiting and retention</td>
</tr>
<tr>
<td>• Removes treasure hunt for Contract Professionals</td>
<td>• Requires leading and managing remote professionals</td>
</tr>
<tr>
<td>• Removes mystery story</td>
<td>• Lack same level of relationship between employee and employer</td>
</tr>
<tr>
<td>• Flexible supply in response to demand variation</td>
<td>• Human capital can go directly to client</td>
</tr>
<tr>
<td>• No benefits or need for layoffs</td>
<td>• Professional skill evaluation difficulty</td>
</tr>
<tr>
<td>• Low cost structure</td>
<td>• Uncertain continuity of SME with Client</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• New business model able to displace traditional consulting</td>
<td>• Many aspect easily replicable by competitors</td>
</tr>
<tr>
<td>• Provide a full spectrum of SME services</td>
<td>• Inability to protect IP under current patent law</td>
</tr>
<tr>
<td>• Business model scalable and expandable</td>
<td>• Client may short circuit revenue by direct hire of SME</td>
</tr>
<tr>
<td>• Provide cost effective SME services to those not currently utilizing them</td>
<td>• Inability to recruit fast enough for Client demand</td>
</tr>
</tbody>
</table>

**Figure 16 - SWOT Analysis**

5.10 Investment Capital Requirements

When looking at our business over a five year we plan to be profitable by the third year of
operation. Therefore to sustain our operations until we reach profitability, it would require a
total of about $1.1 million. Our plan is to raise this capital by taking out a business loan of
$325,000 and looking for a VC investment of $750,000 over two years. These funds would be
spent on the direct operating costs of the business over the first two years.

5.11 Personnel

For the time being our business will need at a minimum 5 employees to start running the
business. Below are a description of each and their responsibilities:

CEO: TBD – The CEO will represent the company at all outside functions and when meeting with
investors. They will decide on what additional markets to pursue and any potential strategic
alliances that should be built. This person will have the final decision on all major business and
personnel decisions.

CTO: Roy Avalos – The CTO will be responsible for the choosing the technology that is used to
run the business and managing the design of the site. Common items under their span of
control include the design of the web site, the database infrastructure, and hardware resources
to run the site.

COO: Charles Kinzer – The COO will manage workflow process and the business operations of
the company. This person will oversee and adjust the service process to make it as efficient as
possible. Also the position will need to manage the payment processing part of the business.
Processing SME payments is the point of transaction where our business generates revenue.

Head Web Designer: TBD – This person is responsible for designing the graphical interface of
the web site. Since this is an online based business this position is critical as our interface with
all customers is through the website. This person will report to the CTO.

Director of Software: TBD – This position is responsible for implementing the software code
that will run the site and developing the databases that contain SME and Client information.
This position will most likely need to oversee additional programmers needed to build and run
the site’s software code. This person will report to the CTO.
5.12 Business and Revenue Model

5.12.1 Business Model Assumptions

For our estimates to be plausible some assumptions must be made for our proposed business model:

- A large part time workforce of SMEs can meet our clients demands
- We can sign up enough SMEs to fill our database and staff our service
- We need to be able to retain SMEs even after they develop working relationships with our customers
- The growth of the statistician and accounting market continues to increase over the next five years

5.12.2 Business Model Architecture

For our service to generate revenue we will be charging a fee on all projects processed with our website. This fee is charged after a project has been completed and is set at 12% of the project budget. We plan on paying out 88% of revenue to the SME for processing the technical work. The decision to payout the majority of the revenue to the SME is intended to help retain the SME with the online service. Other than the money spent on the project there are no additional costs for the client. We believe that having no costs for clients to use our site will lead to a high popularity for our service and an increased amount of project postings to our site.

5.13 Strategic Alliances

At this point in time we do not have any strategic alliances for the prototype phase of the project. If the project were to continue in development we would consider an alliance with Google in order to generate revenue through advertisements. We envision using Google’s AdSense to manage advertising content placed directly on our site. This would simplify the cost of maintaining relationships with online advertisers and selecting what ads to use. This no maintenance program from Google allows us to tap into a network of thousands of advertisers, show ads our users are interested in, and maximize our website revenue (Google AdSense,
Using this system we can generate revenue through outsourced projects and web based advertisements.

5.14 Profit & Loss

As previously discussed it is estimated that our target market has a current value of $11 billion. When planning ahead for our online service we have established a goal of capturing $20 million of this market within 5 years. Below is an estimated income statement, for the first five years, based on our revenue projections. This estimate predicts a net profit of $1.52 million in the fifth year of operation.

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Revenue</td>
<td>$2,500,000</td>
<td>$4,000,000</td>
<td>$10,000,000</td>
<td>$16,000,000</td>
<td>$20,000,000</td>
</tr>
<tr>
<td>COGS (88% SME payment)</td>
<td>$2,200,000</td>
<td>$3,520,000</td>
<td>$8,800,000</td>
<td>$14,080,000</td>
<td>$17,600,000</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>$300,000</td>
<td>$480,000</td>
<td>$1,200,000</td>
<td>$1,920,000</td>
<td>$2,400,000</td>
</tr>
<tr>
<td>Operating Costs</td>
<td>($508,628)</td>
<td>($562,328)</td>
<td>($649,038)</td>
<td>($755,285)</td>
<td>($880,050)</td>
</tr>
<tr>
<td>Net Profit</td>
<td>($208,628)</td>
<td>($82,328)</td>
<td>$550,962</td>
<td>$1,164,715</td>
<td>$1,519,950</td>
</tr>
</tbody>
</table>

Table 16 - Profit & Loss Statement

With the profit and loss of our company estimated for the first five years we can now determine the Return on Investment. The ROI is the based on the following formula:

\[
\text{ROI} = \frac{\text{Gain from Investment} - \text{Cost of Investment}}{\text{Cost of Investment}}
\]

With the initial investment of $750,000 the ROI for the following profitable years is:

- End of Year 4: \( \frac{1,160,000 - 750,000}{750000} = 55\% \)
- End of Year 5: \( \frac{1,520,000 - 750,000}{750000} = 103\% \)

Next, we determined the break-even point of our operations. We calculated this point by plotting the gross profit and the operating costs together. According to our graph in Figure 17 we will hit our break-even point between the second and third year of operations.
5.15 Norden-Rayleigh Model

In order to access our funding and cost of development we have used the Norden-Rayleigh model to graph our cumulative funding and funding profile over time. We have calculated these profiles on a quarterly basis and until we expect to break even, which is near year 3 of operations. To use the model it is necessary to determine two parameters (d) and (a). The parameter (d) is our estimated funding budget over time. Parameter (a) is a shaping parameter that is based on an assessment on our financial cost drivers. We have set (d) to the quarterly funding required for the first two years, which totals $134,375. As for (a) we have estimated this shaping parameter using the Cost Drivers table.

<table>
<thead>
<tr>
<th>Cost Drivers</th>
<th>(a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Costs</td>
<td>0.5</td>
</tr>
<tr>
<td>Technical Skills</td>
<td>0.3</td>
</tr>
<tr>
<td>Market Gain</td>
<td>0.7</td>
</tr>
<tr>
<td>Fixed Costs</td>
<td>0.1</td>
</tr>
<tr>
<td>Average</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Table 17 - Shaping Parameter (a)
Figure 18 - Cumulative Funding over Time

Figure 19 - Funding Profile over Time
5.16 Exit Strategy

Once the concept of a SME services web site proves to be profitable, a calculated exit strategy is planned. When dealing with internet based services a good indicator of success is the number of hits a site receives. When reviewing the top 25 rated websites in terms of traffic only Craigslist offers some level of freelance services. Craigslist’s variety of postings most likely catapulted it into the top 25 most visited sites. As for the most visited site, Google.com, its ability to offer a large array of tools and functionality has clearly cemented it as the top site for the foreseeable future. Based on this, solely relying on SME services to attract traffic can be somewhat limiting. We believe that the most strategic strategy for our services web site would be to have the business acquired and integrated as part of a larger web based business. This is similar to Yahoo’s purchase of hotjobs. If acquired by a company with a well established presence on the internet our SME service can enjoy continued growth and profitability.
6 Future Work

Now that we have completed the initial phase of describing and documenting a SME service, two phases remain before this development is considered complete. First is the prototype phase. As we outlined in the cost section, a prototype of the business will need to be constructed in order to test the concept and functionality of the service. If this prototype is deemed to be successful the final phase would begin. In the final phase the web service would begin operating on the internet. At this point additional personnel resources, along with a capital investment, would be needed to support operations until the business is profitable.

As for the services offered by our website, it would be beneficial to consider development of a feature for clients who wish to minimize their effort and commitment to processing outsourced projects. Currently our web service requires a search, select, and manage effort to complete a project. It would be of interest to investigate a product where by the client’s only effort would be to submit a project and set a budget. The remaining effort to select a SME, monitor the process, and review the completed project would be conducted by our site. This type of product would be a best fit for projects with a low level of complexity, and would help clients minimize their effort to complete them.
7 Conclusion

The goal of this project was to develop the requirements and justification for the creation of an online based service for the locating and hiring of Subject Matter Experts. This project also includes a requirement description of features used to process outsourced work remotely through our website. The feature descriptions listed here are based on the emphasis that our service adds additional value over competitive sites when a client chooses a service.

This report is intended to serve two purposes: First, if the project were to proceed to the prototype phase, the info contained in the report will serve as a high level requirement document which should be used as a guide for a web developer or programmer to build an actual site. Second the report provides sufficient economic justification to support investment in the business if the prototype should prove successful.
References


Jacobson, J. (2010, October 31). Team 1 Initial Group Meeting. (R. Avalos, Interviewer)


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