

**Software as a Service Offer Differentiation based on Suitability for Particular
Business Units**

by

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Abstract

An empirically derived quantitative study of 431 firms active in the Force.com SaaS (Software-as-a-Service) tools context is presented. Exploratory Factor Analysis techniques was performed for each business unit separately and for all business units combined. Those include sales, marketing, product management, support and maintenance, project management, HR (Human Resources), finance and IT (Information technology). Combining all business units and using Exploratory Factor Analysis extracted six types of market offering. (i) Marketing Automation, (ii) Project Management, (iii) Administration Support Operations, (iv) Finance Operations, (v) Permission Marketing, and (vi) Call Center Operations. Those were further clustered into: (i) Marketing Automation Software, (ii) Project Management Software; (iii) Support Services Software; and (iv) Finance Software. The results identified the firms that offer SaaS solutions for those types to position the product most suitable to department needs.

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INTRODUCTION

Software as a Service (SaaS) is growing, which will potentially replace on-premise software in many departments in various industries. These industries include automotive, aerospace, communication and broadcasting, computers, defense, electronics, finance, health care and retail. The departments include sales, marketing, support, project management, finance, HR and IT.

1.1 Research Question

Because of the widely available SaaS products, it could be difficult for users to find the most suitable tool that fit their requirements for their specific department and industry. The current literature available does not address the suitability of SaaS for particular business units' requirements. This research analyzes the various supplier offerings in order to save time when attempting to find SaaS vendors. Thus the following question is asked:

What are the most appropriate SaaS features for the suppliers' offer to businesses?

1.2 Relevance

The research is relevant to at least three groups:

- **Business System and IT managers:** Business system managers in the IT department are usually concerned with providing their organization with products and applications that are adaptable, offer high value, and cost-effective. Steven

Tuecke, CEO of Univa Corporation and co-founder of Globus Alliance responsible for managing the architecture, design, and development of Globus Software stated that “an organization that adapts to market conditions so that it can respond to and address changes in their market to better position itself (Tuecke, 2005).”

- **Departmental Executives:** Head executives in departments such as sales, marketing and support are concerned with leveraging the best products that will be efficient and productive for their employees. They are also concerned with setting up a budget for buying these products. According to Rick Crossland, director-CRM for Ford motors “With business systems set in place such as call tracking technology and more sophisticated lead-management systems, departments are better able to determine who and what the sources for their leads are. This increases work efficiency (Banks, 2004).” Also, Devon Johnson, an assistant professor of marketing at Northeastern University, in Boston and Sundar Bharadwaj, an associate professor of marketing in the Goizueta Business School at Emory University added that “digitization has the paradoxical effect of improving salesperson effectiveness by improving sales force control systems (Johnson & Bharadwaj, 2005).”
- **Software Vendors:** This thesis can help the SaaS vendors to do more research, development and product integration with what the market needs, thus increasing the market growth and also improving product management, sales and marketing strategies. Justin Mathena and Aaron Yetter, founders of Altriva Solutions based in Bellevue Washington, and Hoss Hostetler Director of CRM, at Altriva

Solutions, mentions that “Implementing the correct CRM system can be a significant effort with broad expectations of long term business value (Mathena, Yetter & Hostetler, 2009).” Steven Tuecke, CEO of Univa Corporation and co-founder of Globus Alliance, added that “IBM talks about an on-demand business as an enterprise whose business processes is integrated end-to-end across the company (Tuecke, 2005).”

1.3 Deliverables

The thesis has produced the following deliverable:

- Analysis of factors that differentiate the SaaS vendors offers – clustering of companies based on these factors

1.4 Contribution

The thesis provides the following contribution:

- Save SaaS consumers time when researching the offers from SaaS suppliers

1.5 Document Organization

The rest of the thesis is divided into six chapters as follows:

- **Chapter 2:** A literature review organized into the following streams: SaaS background, issues and future of SaaS, research theories and statistical analysis and lessons learned
- **Chapter 3:** Describes the research methodology including research strategy, research design, research methods, selection criteria, keyword selection and data acquisition
- **Chapter 4:** Contains the research results including data analysis and validation
- **Chapter 5:** Covers the discussions of results which include factor and cluster analysis
- **Chapter 6:** Concludes the thesis with research limitations and challenges

LITREATURE REVIEW

This chapter is organized into four streams. The first stream reviews the literature on the SaaS background. The second stream provides a detailed explanation on the SaaS characteristics, architecture and implementation. The third stream contains the various SaaS benefits and issues. The fourth stream provides the research methodologies used in this thesis which includes factor analysis. Finally, the lessons learned from the literature review will be discussed.

2.1 SaaS Background

Software as a Service (more commonly referred to as SaaS) is software that is deployed to run behind a firewall on a local area network LAN and/or is deployed over the internet (Biddick, 2010). SaaS is cloud-based meaning that the delivery of complete software applications runs on infrastructure that the SaaS vendor manages. There are 5 stacked layers of cloud computing and SaaS comprises one of those layers, the application layer. The first layer is infrastructure which offers services that operates like dedicated servers with memory. Once a computer process is started, the developer has complete control over its operations and must add necessary processes to it and then terminate it when complete (Iyer & Henderson, 2010). Examples of the infrastructure layer include Amazon and IBM. The second layer is Platform as a Service which allows developers to build applications without worrying about computer processes. Typically, vendors provide a development environment with a programming language that can be used to

create new applications (Iyer & Henderson, 2010). Examples of the Platform as a Service layer include HP and Google. The third layer is the application layer which is where SaaS lies; users can access online services through SalesForce.com (Iyer & Henderson, 2010). Examples of SaaS include customer relationship management CRM, enterprise resource planning ERP and financial systems. The fourth layer is collaborative which consists of social networking applications that assists in collaborative work and building communities (Iyer & Henderson, 2010). Examples of the collaborative layer include Facebook and LinkedIn. The Fifth layer is service which provide consulting and integration services. Examples of the service layer include Appirio and Boomi.

SaaS can be defined as a software distribution model in which applications are hosted by a vendor and made available to customers over the internet. Those SaaS vendors manage the daily operations and provide maintenance and support to their customers (Roehl-Anderson, 2010). Some vendors may host it on servers they control, or they may allow the application to be downloaded onto the device of the consumer. The functionality for the on-demand features may be handled in an internal manner, but they may also be handled by a third-party who is referred to as being the ASP, or application service provider. The ASP will generally be responsible for the sharing of licenses among multiple firms. SaaS allows for licensing on-demand while handling both the information and output simultaneously, which means the location of the hardware is not important. SaaS is distinct from older Internet-based applications because they were created to leverage online technologies like the browser, making programs better for the web.

Dubay & Wagle (2007) explore several factors which prove that SaaS is growing. New software design and delivery models allow many more instances of an application to run

at once in a common environment, so providers can now share one application cost effectively across hundreds of companies. Also, bandwidth costs are dropping, which makes it affordable for companies to acquire the level of connectivity that allows online applications to perform well. More importantly customers are frustrated by the traditional cycle of buying software licenses and going through time-consuming and expensive upgrades. Many customers believe they would have more control over the relationship if they paid monthly fees which could be switched to another vendor if the first failed to perform gracefully. Finally, the success of early leaders such as Salesforce has demonstrated the value of the SaaS model.

Dubay & Wagle (2007) research identified that the first wave of SaaS adoption has been underway for several years, including the technology for HR applications such as CRM and payroll. Also, SaaS technology is now used in many industries such as retail, services, health care, computers, automotive and finance. The next wave of applications seems likely to involve transactions between buyers and suppliers including logistics and supply chain management. The third wave of applications is more critical to business such as hosted environments for software development. All three waves are to replicate the functionality of applications that have been sold as packaged software and hosted on the customer's site.

2.2 SaaS Features

This stream is divided into three sub streams: SaaS key characteristics, SaaS architecture and SaaS implementation

2.2.1 SaaS Key Characteristics

Jaatun (2009) identifies the following as the key characteristics of SaaS:

- **Supporting Multitenant Architecture:** Where all users and applications share a single, common infrastructure and codebase that is maintained centrally. Because SaaS is deployed on the providers' side and available to the public, vendors can innovate more quickly and save the valuable development time previously spent on maintaining numerous versions of outdated code.
- **Thin Client Mode:** SaaS client vendors use internet browser to access results. While as all the computations and consumer-specific datasets are stored and maintained on the providers' side. Thus the client need not worry about that.
- **Better Access:** Data is accessed more readily from any networked device, making sure everyone sees the same information at the same time.
- **Supporting commonality:** The web interface of typical SaaS applications has similar functionality and features to consumer websites such as E-bay and Facebook, thus making it easier for users to navigate through.

One of the key characteristics of SaaS that is different from in-house products is pricing. SIIA (2001) mentions that the licensing models are as follows:

- **Subscription-based model:** Subscription is usually on a per-seat or named user basis. Monthly payment is calculated on the software actually used and includes a commitment as to the actual number of users.

- **Usage-based model:** Payment is determined by the number of CPU's that runs the hosted application or by application usage and is typically related to peak levels of usage.
- **Transaction-based model:** Customers are charged for each business transaction. Example purchasing one relational database class is one service, two classes is two services and so on.
- **Value-based model:** Payments are linked to the achievements of business goals through the software.
- **The fixed-fee model:** A predetermined monthly fee is paid based on the number of users supported, which application modules are rented, and maintenance and support levels identified by the customer.

Chong & Carraro (2006) study identifies two major categories for SaaS in terms of consumers:

- **Line-of-business services:** offered to enterprises and organizations of all sizes. Line-of-business services are often large, customizable business solutions. These services are typically sold to customers on a subscription-basis.
- **Consumer-oriented services:** offered to the general public. Consumer-oriented services are sometimes sold on a subscription-basis, but are often provided to consumers at no cost, and are supported by advertising.

2.2.2 SaaS Architecture and Attributes

Chong & Carraro (2006) suggest that in order to design an SaaS application, three important features need to be part of the design. The SaaS application should be scalable, multi-tenant-efficient and configurable.

- **Scalable:** This means using the application resources more efficiently and getting the highest value out of concurrency. Examples include caching reference data, sharing pooled resources such as network connections and threads, and partitioning large databases.
- **Multi-Tenant-Efficient:** This is one of the most significant SaaS architectural standpoints. For example, when a user at one company access the SaaS CRM application, service and data, this application instance can also be accessed by hundreds of other companies and users at the same time without the users knowing of it. This requires an architecture that maximizes the sharing of resources across users (tenants) while differentiating data belonging to different customers.
- **Configurable:** Each customer uses metadata to configure the SaaS application functions. This is done because you can't simply write custom code to customize the end-user experience; this will change the application for other customers as well. The SaaS architect must ensure that the tasks of configuring the application is simple and easy to use for the customers, without adding extra development or operation costs for each application.

2.2.3 SaaS Implementation

The next issue that must be carefully considered is SaaS implementation. Chong & Carraro (2006) explain that the SaaS application maturity and good architecture can be expressed by using a model with four distinct levels. Each level is different from the previous one by the addition of one of the three attributes listed in section 2.2.2. Maturity of SaaS applications isn't an all-or-nothing proposition. An application can have one or two or three of these attributes and still meet the business requirements needed. Here are the four different models:

- **Level I Ad Hoc/Custom:** For this level each customer has their own customized version of the hosted application and run their own application instance on the host's servers. Different customers within an organization connect to a single instance running on the server, which is fully independent of any other instances that the host is running on behalf of its other customers. This is the best level solution for low-cost applications. Since it has relatively little development effort and doesn't require re-architecting the system from the ground-up.
- **Level II Configurable:** For the first level each instance is individually customized for the user. However, in this level, the vendors host a separate instance of the application for each customer. All instances use the code implementation, and the vendor meets customers' needs by providing detailed configuration options that allow the customer to change how the application looks and functions according to their users' needs. Each instance is fully isolated from all others. The second level works well for reducing a SaaS application's service requirements, because any changes made to the code base can be easily provided

to all of the vendor's customers at once. This then removes the need for upgrading instances. However, Level II requires more re-architecting than Level I.

- **Level III Configurable and Multi-Tenant-Efficient:** The vendor runs a single instance that serves every customer with configurable metadata providing a unique user experience and feature set for each user. Security privileges and authorization ensures that each customer's data is kept separate from the other customers. From the end user's perspective, there is no way of knowing whether the application is being shared by other users. This eliminates the need for the vendor to provide server space for as many instances of customers; thus allowing more efficient use of network resources which translates into lower costs. The most significant disadvantage of this approach is the scalability of the application is limited.
- **Level IV Scalable, Configurable, and Multi-Tenant-Efficient:** For level four the vendor hosts multiple customers on load-balanced farm identical instances, with each customer's data kept separate and with configurable metadata. This is scalable to a large number of customers, because the number of servers and instances on the back-end can be increased and decreased on-demand, without the need of additional re-architecting. This provides a unique user experience for each customer.

Kressel & Lento (2007) give an example of a successful SaaS implementation at Accredited Home Lenders Inc., which is in the mortgage lending business. Accredited Home Lenders has reduced the process involved in completing a mortgage application to a set of interconnected software components. This in turn changes the

procedures to a simple, integrated, self-service procedure. The procedure ensures saving lots of time. Brokers go online to get pricing, receive approvals and submit applications.

Rittinghouse & Ransome (2009) state a few challenges for SaaS implementation. An organization can have very specific computational and functional needs and thus it will be challenging for them to find a SaaS application suitable for them. There is also the Lock-in challenge, where the customer pays a vendor to use an application but once they do, they might be unable to port that application to a new vendor. Even if it is possible to move to a new vendor, the old vendor might ask for a high fee. Finally, the availability of open source applications is challenging.

2.3 SaaS Benefits and Issues

The following stream is divided into three sub streams; SaaS value proposition, SaaS benefits, and issues.

2.3.1 SaaS Benefits

Blokdijk (2008) states the various benefits of SaaS applications:

- The customers are able to provide feedback for software with bugs and issues. The software company is then responsible to fix these bugs.

- SaaS is customer-focused and customer-friendly. This means that SaaS vendors install and setup their applications that are made available for the customer.
- SaaS applications need a low cost of investment and that is due to its pricing model being subscription-based. It is also simple to terminate the subscription without recurring a big sum of money.
- Easy updates of software. Customers are guaranteed the best version of the product and bugs are always resolved in a timely manner.

SaaS is beneficial not only to the customer but also the independent software vendor themselves. Here are the benefits for both:

Independent Software Vendors:

1. Improved customer support and service level agreements.
2. Predictable revenue stream and growth. The revenue stream to the software providers is on-going since the pricing model is subscription-based thus the customers will always pay on a schedule. Therefore, the provider can get a real handle on forecasting revenues. Also, the growth is predictable since there could be a way to monitor the users' usage percentages thus finding out if there is room for growth. This in turn means that the on-going costs are more predictable and expected (Sultan, 2007).
3. Easier to fix bugs and enhance features since the focus is more on smaller, incremental upgrades instead of patch rollouts (Sultan, 2007).

4. Quicker and easier to market since sales becomes customer relationship management CRM. This means that the provider should keep their ratings high and this will help bringing in new customers (Blokdijs, 2008).

Customers:

1. More stable and secure system. The customer will get to a secure application without the need to do complex back-end configurations. Also, the providers make sure that SaaS is an uninterrupted, reliable service against security breaches. Also, the providers make sure that the data is always backed-up. This is done through an infrastructure that includes network redundancies, stand-by power, and up-to-date security and intrusion detection (Blokdijs, 2008; Velte & Elsenpeter, 2009).
2. Quick implementation since SaaS provides a fast track for getting the application up and running. Easier and shorter deployment which could take minutes instead of traditional software that takes months to deploy. Therefore implementation risks are reduced (Blokdijs, 2008; Sultan, 2007; Violino, 2009).
3. The provider manages all upgrades; thus the customer does not need to install or upgrade patches or client/server software installation or maintenance. Also, the providers constantly improve the application experience by providing smaller upgrades instead of large ones that cost time and money to implement (Sultan, 2007).
4. The SaaS provider manages the IT infrastructure thus lower initial costs for hardware and software. This means no issues with upgrading aging technologies

and protection from unforeseen expense spikes when using traditional software.

(Blokdijs, 2008).

5. Using a SaaS vendor reduces the need for as much IT staff. This leaves the IT staff to focus on strategic initiatives and day-to day technical operations instead of performing development, enhancement or deploying aging infrastructure and applications (Sultan, 2007).
6. SaaS provides a high return on investment (ROI) for the customer, since a SaaS subscription already includes maintenance and support and does not need additional software or hardware, making it more affordable. Also, by outsourcing software functionality to a SaaS vendor, the customer realizes a cost savings in infrastructure and IT personnel knowledge requirements. Additionally, because customers pay on a subscription basis instead of paying upfront costs, the monetary risk is lower (Blokdijs, 2008; Sultan, 2007; Violino, 2009).
7. The learning curve for using SaaS applications is low since most employees now are familiar with the World Wide Web. Also SaaS applications are now available from any computer or any device anytime, anywhere. This tends to make SaaS applications have high adoption rates (Blokdijs, 2008).
8. SaaS applications are very easily customizable to meet specific organizational needs, without the need of coding skills. Also, many SaaS vendors provide application programming interface APIs that can integrate seamlessly with various business systems applications or ERP's (Blokdijs, 2008).
9. SaaS applications are globally available. Thus it is easy to find the most suitable SaaS application for the customer's organization, since the application's various

functions are available from anywhere on the internet (Blokdiik, 2008; Sultan, 2007).

10. Because of the increase of bandwidth recently, customers now trust that they can access their applications with good speeds and low delays (Blokdiik, 2008).
11. SaaS applications provide great benefits for managers in an organization they are:
 - Greater insights: managers will have more visibility on work priorities.
 - Increased accuracy: managers will know where resources are allocated at all times.
 - More transparency: managers have increased control over the execution of projects.
 - Time savings: the elimination of spreadsheet management means managers will have more time to focus on other tasks.
 - Increased collaboration: various departments can now be brought into the process of prioritizing projects (Violino, 2009).
12. SaaS applications provide an increased agility which means that companies can adapt to changing marketing conditions while optimizing limited resources. Companies would now have a bigger picture view of the work that needs to be done (Violino, 2009).
13. Unsatisfied customers can report their frustrations and the SaaS provider is motivated to fix the problem since it is easy to switch to other vendors. SaaS customers can cancel their subscriptions and transfer to a different application vendor without incurring penalties. Also, there are SaaS vendors that have the

option to pay only for what you use, meaning paying only for the active users and not the whole organization (Finch, 2005).

2.3.3 SaaS Issues

Although there are many benefits of using SaaS there are still several issues facing SaaS today. Those issues include security. Here are a few quotes from executives as to why security is an issue for using SaaS applications:

“We just don’t feel comfortable with that; it’s more secure for us to keep it in-house. Our data is so sensitive with regard to the Family Educational Rights and Family Act (FERPA) and HIPPA, that we’re constrained.” - William Souder, chief information officer at Berry College (Rogers, 2008).

“We’re keeping all our stuff in-house. Security is one thing but cost is a big factor also.” -IT manager from a Florida-based health care provider, who asked not to be named (Rogers, 2008).

“From the supply side, there’s a hell of a lot of evangelizing to do around this. Make sure that the provider understands your security concerns. What type of encryption are they using? What type of security do they have for their own data centers?” - Doug Chandler IDC analyst (Rogers, 2008).

Newman & Thomas (2008) study identifies two major concerns with SaaS security where the customer doesn’t have control over the whole process and they are:

- **Unauthorized access:** Since the data is stored on the remote server where your SaaS application is deployed, there is more risk of unauthorized access. These risks include captured passwords, data viewed by people who shouldn't view it, and modifications to your data. Unfortunately, these crimes are stealth and very often companies don't even know about them.
- **Physical peril:** This happens when data is physically destroyed from floods, fires, earthquakes, and other natural disasters. Although most servers have backups, there's a chance data can be unrecoverable. Again by accessing information remotely, it's putting the data in the trust of the software vendor.

Newman & Thomas (2008) also mention that there are also SaaS issues other than security and they include:

- **Privacy and confidentiality:** SaaS vendors require a significant trust from the customer. This is an issue for large companies that hold sensitive and confidential information. The organization wouldn't want to share that information with a software provider. Examples include hospitals and banks which have privacy concerns.
- **Internet issues:** Users must depend on their internet connection in order to get access. This can be a major issue in the event of a network or internet failure. Moreover, there are several downtimes and maintenance windows when using SaaS applications which the customers can't avoid.

2.4 Research Analysis

The following references have helped determine the most suitable way to gather data and the research methodology to follow.

Hicks et al. (2006) gathered data on the commercialization strategies of innovative small high tech firms by using web mining techniques. Instead of using questionnaires and interviews he used various company websites to extract their data. The word's frequency on the website was extracted and the pattern of occurrence assessed to perform classification.

Lombardi (2006) used this same technique to classify the interaction between Eclipse foundation members and Eclipse projects. He used a tool called keyword search tool to calculate the frequencies of the keywords and performed a factor analysis to extract the classes of interaction between Eclipse members.

Allen (2009) used the same technique and tools to study the first empirical identification of components of value co-creation. He used a tool called the keyword search tool and then performed component analysis on the results.

Jdue (2009) also used the same technique and tools to choose the most appropriate network control systems in the first level industrial automations. He performed factor analysis on the results.

Soheili (2010) also used the same technique and tools to classify the different types of market offers from open source security tools (OSST). He performed component and factor analysis on the results.

Data mining from the internet is a good research method. Gathering any data on SaaS applications is difficult and time consuming through questionnaires and interviews; however, data is readily available through the web. The rule of thumb here for gathering a sample size is to have more data (Costello & Osborn, 2005; Darlington, 2007). I will use the same techniques and keyword search tool to gather my data.

2.4.1 Principal Component Analysis (PCA)

Principal Component Analysis (PCA) involves a mathematical procedure that transforms a number of possibly correlated variables into a smaller number of uncorrelated variables called principal components (Jolliffe, 2002). According to Costello & Osborn (2005) PCA is not the best method since PCA is considered to be a data reduction method that became popular when computing technologies were expensive. Costello & Osborn (2005) recommended factor analysis since it results in the same solution as PCA and avoids the increase of variance by making use of more complex algorithms for today's computer.

2.4.2 Factor Analysis

Costello & Osborn (2005) mention there are more than six factor extraction methods that can be used in factor analysis. They are PCA, generalized squares, maximum likelihood, unweighted least squares, principal axis factoring, alpha and image factoring. They pointed out that maximum likelihood is the best choice to use for data that is normally distributed and if not, then the principal axis factor or common factor analysis can be used.

2.4.3 Exploratory Factor Analysis (EFA)

Costello & Osborn (2005) and Darlington (2007) state that Exploratory Factor Analysis (EFA) is a combination of both component analysis and common factor analysis (principal axis factor). This is the most effective way to discover simple patterns in the patterns of relationship among variables (Darlington, 2007). To prove a successful factor analysis, Allen (2009) and Darlington (2007) address the following four questions:

1. How many different factors are needed to explain the pattern of relationships among these variables?
2. What is the nature of those factors?
3. How well do the hypothesized factors explain the observed data?

4. How much purely random or unique variance does each observed variable include?

2.4.4 Factor Extraction

Selecting the number of factors is an essential step in factor analysis and it is very important to determine the outcome of the results. Exploratory factor analysis (EFA) which includes common factor analysis (CFA) and component analysis seek the least number of factors that can be used for common variance or correlation. This method will be used since the more number of factors, the more complex the results will be.

There are two ways to extract the most suitable number of factors. The first method is to choose the variables that have an Eigenvalue above 1. Second, Costello & Osborn (2005) recommended the Scree test in which from the Scree plot graph retain the number of factors that occur above the plot break.

2.4.5 Rotation Methods

In order to make the factors outputs more understandable, rotation needs to be implemented. Rotation causes the factors to find a solution that is equal to that obtained in the initial extraction, but has the simplest interpretation. There are two major rotation categories: oblique rotations, which produce correlated factors, and orthogonal rotations which produce uncorrelated factors. Varimax is the mainly used method of rotation and is

believed to be the best orthogonal rotation method (DeCoster, 1998). In the next chapter, the process that was used for this research will be explained.

2.5 Lessons Learned

Here are the various insights gained from reviewing the literature:

- SaaS revenue streams to the vendor are lower initially than traditional software license fees, but are also recurring. That's because SaaS generally price applications on a per-user basis then add on fees for extra storage and bandwidth.
- Bandwidth of wide-area networks has grown drastically following Moore's Law. This has driven companies to access remote locations and applications with low latencies and acceptable speeds, increasing the demand for SaaS applications.
- Data mining techniques are a good choice for SaaS research, since most SaaS business applications have a website or enough information on the Internet (esp. Force.com).
- Pettey & Stevens (2009) gathered survey results showing that 58 % of organizations will maintain current levels of SaaS in the next two years, 32 % will expand, 5 % will discontinue and 5 % will decrease levels. Although a high percentage will continue or expand SaaS there is still a small percentage that will discontinue and decrease. Thus there is still a lot of room for leveraging, educating on and improving SaaS products and marketing.

RESEARCH METHOD

This chapter provides the detailed steps and methods that have been undertaken to complete this research. It is organized into six sections. Section 3.1 covers the research strategy and methodology. Section 3.2 identifies the research design. Section 3.3 discusses the research steps in details. Section 3.4 identifies the selection criteria.

3.1 Research Strategy

The research method used in this research is based on inductive theory followed by grounded theory resulting from the descriptive building theory by Christensen & Carlile (2005). Inductive theory is used at first when gathering adequate known data such as the different business unit names and their corresponding business functions based on earlier observations. This will be discussed in detail in the selection criteria section. This is then followed by performing different statistical analysis including exploratory factor analysis (EFA). Given those set of variables what are the underlying factors that will account for the patterns or the co-linearity among variables, thus springing out unknown outcomes. Therefore, through grounded theory, the various results would be determined according to the unknown outcomes.

3.2 Research Design

The unit of analysis for this research will be firms that offer SaaS business applications and services, and can range from small to large firms.

The time period for the data gathered is within the past 5 years. Since, SaaS offerings is very recent.

Sample data will be drawn from SaaS company websites following the data mining technique. This approach builds on the earlier keyword based web data mining techniques of Hicks et al. (2008), Lombardi (2008), Allen (2009), Jdue (2009) and Soheili (2010).

3.3 Research Steps

The following are the steps taken to accomplish this research. Each is explained in more detail in other sections:

1. **Literature Review:** Study the SaaS background and the different data mining techniques, research theories and statistical analysis including exploratory factor analysis (EFA).
2. **Lessons Learned:** Develop various lessons learned from this literature review.
3. **Keyword Selection:** Keywords selected are the business functions (functional or non-functional) for each of the different business units that form a firm.

Specifying those business functions was taken from various literatures as will be discussed in the keyword selection section in detail.

4. **Selection Criteria:** The websites selected are the ones that offer a business solution to the various business units selected.
5. **Data Acquisition:** Relate the business functions and non-functional criteria gathered by the SaaS vendors. Remove duplicate SaaS websites and business functions across the different business units.
6. **Data Analysis:** Perform keywords-based analysis using the keyword search tool to build a framework spreadsheet with all functional and non-functional criteria as columns and SaaS URL's as rows.
7. **Data Validation:** Adjust the keywords data until the requirements for factor analysis are met those include a sampling adequacy test KMO greater than 0.5 and a significance test Bartlett of less than 0.05.
8. **Factor Analysis:** Perform factor analysis on the data using the R statistical tool. Steps include Scree test (Scree plot and Eigenvalues) and rotational analysis (Varimax).
9. **Cluster Analysis:** Perform cluster analysis (K-means cluster analysis) on the factor outcomes. Include factors of a load greater than 0.4.
10. **Discussions:** Explain the results, discuss the outcomes and provide managerial insights.
11. **Conclusion:** Draw a conclusion and identify limitations, challenges and future research opportunities.

3.4 Selection Criteria

Keywords are collected through an extensive search on various websites and literatures.

Since the keyword search tool (Google Ajax Search API) would support the “AND” and “OR” logical operation, combinations of keywords can be used as one keyword.

RESEARCH RESULTS AND DISCUSSIONS

Due to the large amount of results gathered. The results analysis will be done for each business unit separately and then a combination of all business units together will be analyzed.

The R tool was used for all statistical analysis including PCA, Factor and Cluster analysis. The R tool is an open source platform for statistical computing. One of R's strengths is the ease of generating plots including mathematical symbols and formulae where needed. To obtain the results I have used both the R tool and the R commander. The R commander is an R tool package; it is a GUI that consists of a window containing several menus, buttons, and information fields. In addition, the Commander window contains script and output text windows. The R commander menus are easily configurable through a text file. It is an easy to use interface that doesn't need any R code lines to run.

This chapter streams will be organized according to the business unit name as follows.

Section 4.1 discusses the steps in selecting the list of keywords and what they are.

Section 4.2 covers the data acquisition. Section 4.3 covers the Sales data analysis, factor analysis, cluster analysis, discussions and managerial insights. This is also done for section 4.4 marketing; 4.5 product management; 4.6 support and maintenance; 4.7 project management; 4.8 IT; 4.9 finance; 4.10 HR and finally section 4.11 covers all the business units combined.

4.1 Keyword Selection

The business unit names that form a firm are as follows:

- Sales
- Marketing
- Product Management
- Support and Maintenance
- Project Management
- IT
- Finance
- Human resources

Criteria can be divided into two categories functional and non-functional

Non-functional Criteria:

Non-functional criteria are concerned with what the SaaS vendors' benefits are to the customer as an add-on to the business function. Those are criteria a customer looks for after determining the most suitable SaaS application or service that meets their functional needs. Those include the price of the SaaS product and whether it's free or discounted, if support is provided and whether the SaaS product integrates with the current customer CRM system. The customer would also observe the SaaS product ratings and reviews according to the number of reviewers. Here is the summary of the non-functional criteria

keywords taken from the SaaS vendors' websites added to the data results without going through the keyword search tool.

- Free
- Supported
- Integrated
- Score (ranking)
- Popularity (number of reviewers)
- Discounted

Functional Criteria:

For each business unit, those are the major functions the department would use and need business software tools for. This, in turn, will help determine the suitability of different SaaS software with particular business units. The following are the functional criteria according to the business units shown in table 1 (Appendix 1 shows the entire set of keywords from those business functions and its corresponding URL's for each business unit name):

Factors	Keywords						
Sales	Sales ownership tracking	Sales territory forecasting	Sales annual revenue forecasting	Sales pipeline	Sales contract tracking	Sales contracts interactions	Quote generation
	Quote tracking	Telemarketing assistance software	Door-to-Door sales tracking	Business-to-business sales tracking	Sales lead scoring	Funnel scorecard	Sales planning
	Sales process information	Analyzing sales tasks	Analyzing sales events	Keep track of customers	Sales reporting		
Marketing	Lead Scoring	Lead nurturing	Advertising techniques and	Distribution	Market segmentation	Publicity and promotion	Internet marketing

			tracking				
	Managing campaigns	Managing leads	Market research	Budgeting	Choice of media	Public relations	Event organization
	Search engine marketing	Social media marketing	Sponsorship	Cause marketing	Demand generation	Referral marketing	
Product Management	Defining new products	Gathering market requirements	Product lifecycle requirements	Product lifecycle planning	Product promotion	Monitoring competition	Product documentation
Support and Maintenance	Outsourcing technical support	Call Center	Helpdesk	Customer service	SLA tracking	Reporting	Support automation
	Community/ Web 2.0	E-mail and phone integration	Knowledge base and solutions archive	Contract management and planning	Ticket management and tracking	Licensees	
Project Management	Project initiation	Project planning	Project execution	Project monitoring	Project completion	Project risks	Project administration
	Project termination	Project risk flagging	Project design	Financial analysis	Resources allocation	Stakeholder analysis	Equipment allocation
	Task and cost deliverables	Plan contracting	Source selection and information distribution	Contract administration	Team development		
IT	Reporting	Document sharing	Data conversion	Data storage	Data security	Replication	Data entry
	Data migration	Data validation	Data tabulation	Statistical analysis	Data warehousing	Data mining	Data transmission
	Virus tracker	E-mail	Online content tracker	Profanity tracker			
Finance	Budgeting preparation and administration	Regulating the pay, leave and pension of employees	Assets/ Equities	Administration of taxes	Travel/ Miscellaneous expenses	Employee vacation tracking	Working capital issue
	Property inventory	Cash holding	Credit levels	Shares/ bonds	Shareholders wealth	Audits	Treasury administration
	Investment and public debt	Contract setup and revenue	Invoice setup and revenue	Accounts payable	Cash flow	Investments	Debt and risk management
	Financial reports	Statutory reports	Tax reports	Compensations and bonuses			

Human Resources	Recruitment and selection	Training and development	Performance evaluation and management	Promotions and transfers	Record keeping of all personnel data	Career development	Competency mapping
	Performance appraisal	Employee benefits administration	Personnel cost planning				

Table 1: Functional criteria keywords

4.2 Data Acquisition

Data mining techniques have been used to extract data from websites which offer a business function per business unit name. Table 2 shows the numbers of all functional keywords and URL's that provide business services, for each business unit:

Business Unit Name	Number of functional keywords	Number of URL's
Sales	11	118
Marketing	21	107
Product Management	7	44
Support and Maintenance	13	57
Project Management	14	9
IT	14	26
Finance	21	55
HR	9	15
Total	110	431
Average	14	54

Table 2 numbers of all functional keywords and URL's for each business unit

All data was taken from the AppExchange section of Force.com which is the Salesforce Platform-as-a-Service model.

The reasons data was collected from Force.com are as follows:

1. Salesforce is the number one used CRM tool.
2. Force.com has the highest number of applications that would integrate with a single CRM tool; the number is in the 1000's.
3. Each application belongs to a certain function whether its sales or support or project management which makes it easier to categorize them according to the specified departments.
4. Each application has the price, ratings and reviews provided.

SalesForce is a SaaS company that distributes business software based on subscription. It is mostly known for its CRM products. Force.com allows external developers to create add-on applications that integrate into the main Salesforce application and are hosted on Salesforce.com's infrastructure. The directory of applications built for Salesforce by third-party developers, which users can purchase and add to their Salesforce environment is known as the AppExchange.

From the Force.com AppExchange, data was gathered from the function list. Each function corresponds to a business unit name as highlighted in figure 1:

Home Apps Services Publishing MY SAVED LIST Login or Register

Search

Apps Services

Popular Categories

- ChatterExchange
- Dashboards & Reports
- Project Management
- Mass Email
- Accounting Finance
- Survey

AppExchange has 946 Apps and counting, install one today

Select any of these categories to find the Apps you need. You will be able to further filter your results later.

<p>Key Attributes</p> <ul style="list-style-type: none"> Alpha App Native App Free Paid Discontinued for Nonprofits Supported 4 or 5 Stars Top Pick 	<p>Salesforce Edition</p> <ul style="list-style-type: none"> Group Professional Enterprise Unlimited Force.com Developer 	<p>Type of App</p> <ul style="list-style-type: none"> Application Add Ons Dashboards, Reports Sample App Templates Integration & Data Management Mobile
<p>Featured</p> <div style="margin-bottom: 10px;">  <p>BMC ServiceDesk on Demand</p> </div> <div style="margin-bottom: 10px;">  <p>Try BMC's new ITIL help desk free for 30 days</p> </div> <div style="margin-bottom: 10px;">  <p>Salesforce Integration</p> </div> <div>  <p>Import, Export & Synchronize Salesforce Data with the Rest of</p> </div>	<p>Industry Solutions</p> <ul style="list-style-type: none"> Communications Education Financial Services Healthcare High Tech Manufacturing Media Nonprofit Pharmaceutical Retail 	<p>Function</p> <ul style="list-style-type: none"> Analytics Collaboration Tools Finance & Administration Human Resources IT Management Marketing Partner Relationship Management Sales Service & Support

Figure 1 Force.com AppExchange Functions

For each function (business unit name), the SaaS vendor's information was gathered. All applications were sorted by rating as highlighted in figure 2:

Sales

Showing 1-20 of 306 items total

Sort by Rating

Sponsored

EchoSign E-Signature and Contract Managemen...

EchoSign has over 200 five star reviews! Winner Best of AppExchange 2009!

SalesView - Drive Sales Productivity with I...

Drive Sales Productivity with Sales Intelligence integrated into your CRM

	<p>EchoSign E-Signature and Contract Managemen... #</p> <p>#1 rated electronic signature app</p> <p>by EchoSign Inc 6/2006</p> <p>(311)   </p>
	<p>SalesView - Drive Sales Productivity with I #</p> <p>Ready for Sales 2.0? Find, qualify, and close more deals with SalesView.</p> <p>by InsideView Inc 5/2006</p> <p>(207)   </p>
	<p>DocuSign for Salesforce Electronic Signatur . #</p> <p>The leading electronic signature (eSignature) solution lets you sign docume...</p> <p>by DocuSign Inc 3/7, 2010</p> <p>(193)   </p>
	<p>Conga Composer #</p> <p>Conga Composer - One click to proposals, account plans, contracts and more</p> <p>by AppExchange Inc 11/10/2007</p> <p>(145)   </p>

Figure 2. Sales Applications sorted by rating snapshot

Here is the key information gathered for each SaaS application. Those are defined as the non-functional criteria and are shown in figure 3.

1. Product Name
2. URL
3. Free or Paid
4. Supported
5. Native Salesforce application
6. Rank

7. Score (rating)

8. Popularity (number of users reviews)

The screenshot shows an app listing for 'VCS Smart Email for Enterprise & Unlimited Edition' by Virtual Company Services, dated 10/31/2008. The app is described as a 'First email client conceived and operated "in the cloud" .100% Force.com native. Inbound and outbound emails automatically associated to leads, contacts, opportunities, cases and campaigns without synchronizing. For Gmail, Outlook, lotus among others'. The rating is 4.8 out of 5, with 53 reviews. Annotations include: '1' pointing to the app icon; '7' pointing to the rating; '8' pointing to the number of reviews; '3' pointing to 'Free'; '4' pointing to 'Support'; '5' pointing to 'Native'; 'Add To Saved' button; 'Get It Now' button; 'Overview', 'Spec', 'Support', 'Provider' tabs; 'Highlights' section with a '2' pointing to 'Automatic association of incoming emails to contacts, leads, opportunities or cases.'; 'Pricing' section with 'Free' and contact information; 'Play App Demo' and 'View Screenshots' buttons.

Figure 3: Sales SaaS application non-functional criteria

Table 3 shows the columns included in the spreadsheet of a business unit name non-functional criteria with an example of its corresponding data:

Product Name	URL	Free	Supported	Integrated	Rank	Score out of 5	Popularity (number of reviews)
DocuSign	http://docusign.com/	No	Yes	No	4	5	32

Table 3: Sales non-functional criteria spreadsheet snapshot

After all the product names and their corresponding websites for each business unit are gathered and documented, the keyword search tool is used to perform the web search to give out the percentage of keyword (functional criteria) hits for each URL provided.

This tool has been created by Lombardi (2008) to support his research for the interaction of Eclipse member firms and is based on the Google Ajax search API. The tool accepts a list of URLs and a list of keywords as a text file and returns a comma separated variable (.csv) output file with the number of occurrence of each keyword and total number of pages in each URL.

4.3 Sales Results

4.3.1 Sales Data Analysis

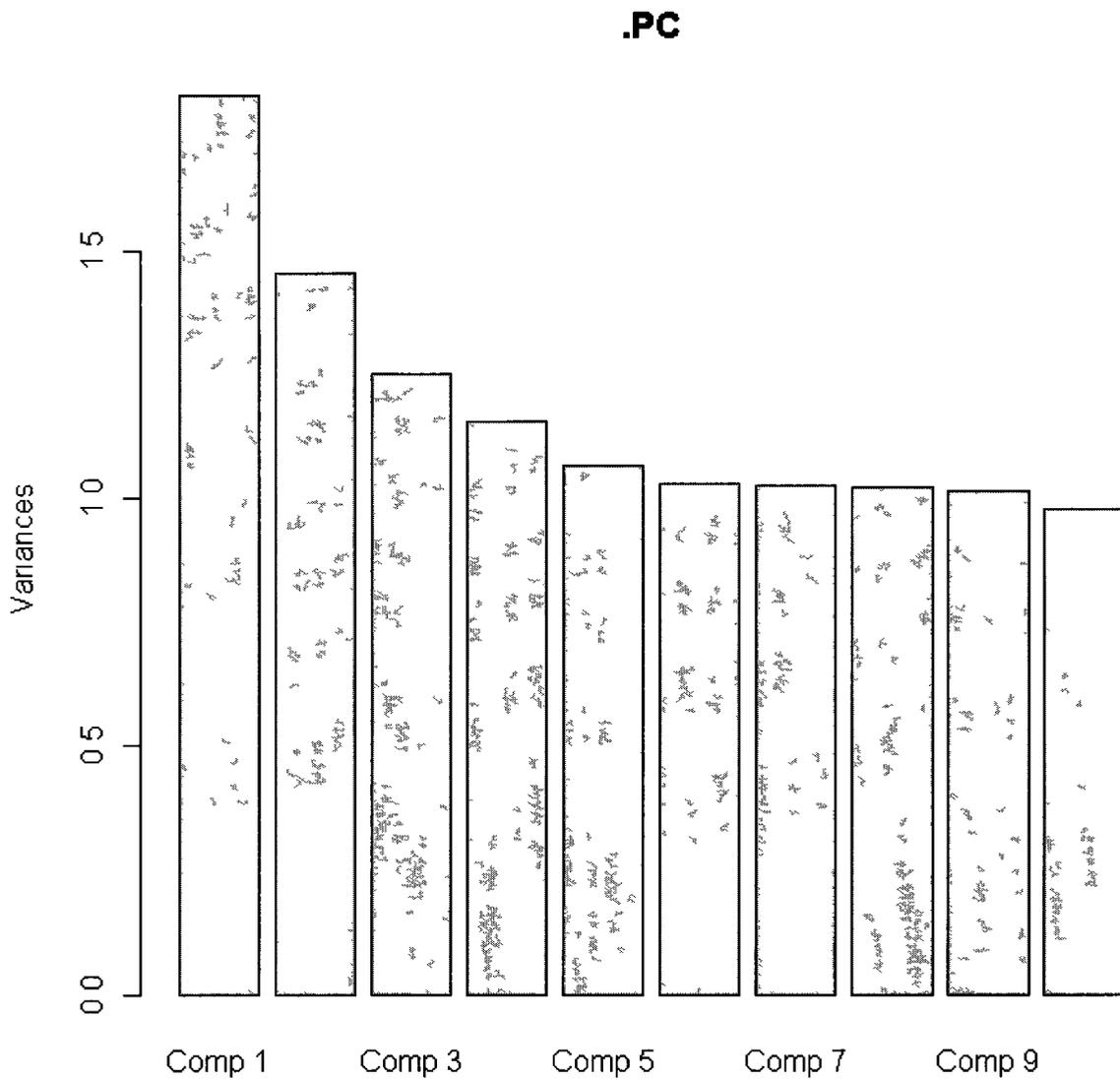
From the entire list of sales keywords mentioned previously table 4 shows the ones selected since many were dropped because they were duplicate keywords or had no keyword hits and the ones dropped:

Sales							
Keywords selected	Sales AND tracking	Sales AND territory	Sales AND forecasting	Sales AND contract	E-Signature	Quote AND generation	Quote AND tracking
	Telemarketing	Analyzing AND tasks	Analyzing AND events				
Keywords dropped	Door-to-Door sales tracking	Business-to-business sales tracking	Sales lead scoring	Funnel scorecard	Sales planning	Sales process information	Keep track of customers
	Sales reporting						

Table 4: Sales Keywords

After inputting the 11 keywords and 118 URL's onto the keyword search tool, the keyword hits results were displayed in an output file which is then uploaded to the R commander tool. From the R commander, PCA can be performed to get the Scree plot. The Scree plot is a plot of the eigenvalues of a correlation matrix. This helps visualize the relative importance of the factors. The Scree test includes looking for the break point in the data where the curve flattens out. The number of data points above the break is normally the number of factors to retain. The Scree plot is shown in graph 1.

Here is the Sales Scree plot:



Graph 1 Sales Scree Plot

From the plot we can see there are up to 5 factors we can use that have an Eigenvalue above 1.0.

4.3.2 Sales Factor Analysis

In order to obtain the factor loadings of our keyword search tool results, factor analysis needs to be performed from the R commander.

In order to make the factors outputs more understandable factor rotation is performed, in this case Varimax is used since it is the best orthogonal rotation method. However, before going any further with the keyword factor loadings, data validation needs to occur as follows.

Two tests need to be performed to determine the factorability of a matrix and they are Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of significance test. For the result to be considered statistically valid, the KMO measure of sampling adequacy must be larger than 0.5 and the Bartlett's test of significance test (Sig) should be smaller than 0.05, to indicate the adequate degree of correlation for factor analysis to converge (Field, 2005; Allen, 2009). Also the higher the cumulative variance to 1 the more accurate the results are. The sales test results are shown in table 5.

Metric	Limit	Result
Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy	> 0.5	0.998
Bartlett's test of significance	<0.05	2.2e-16
Cumulative variance	> 0.3	0.63

Table 5. Sales data validation

The factor loadings for the 5 factors resulting from the factor analysis are shown in table 6:

Keywords	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Quote Generation	0.996				
Quote Tracking		0.997			
E-Signature			0.136		
Sales Contract			0.124		
Sales Tracking			-0.167		
Sales Territory				0.993	
Analyzing Events					0.516
Sales Pipeline					0.761
Cumulative Variance	0.086	0.168	0.248	0.326	0.63

Table 6 Sales factor loadings

Jdue (2009) states the goal of factor analysis is to find the simple patterns in the pattern of relationships among variables. It seeks to detect if the observed variables can be explained largely or entirely in terms of a much smaller number of variables called factor loadings. Factor loadings are the correlation coefficients between the variables and factors. Factor loadings are the basis for imputing a label to different factors. The factor loading criterion chosen is the Kaiser's method. Costello et al. (2005) suggested 0.32 loading as a good rule of thumb to be considered for the minimum loading. Reinard (2006) recommends excluding keywords with loading less than 0.6. Since the factor

loadings are high, a threshold of 0.4 has been chosen. This threshold would remove cross loadings and indicate variables with high loadings.

Both the factor loadings corresponding to each keyword and the keyword hits output results can be combined to calculate the weighted factors for each URL. This is done by multiplying each factor with its corresponding keyword weight, then taking the average of each factor for all URL's, and keeping for each factor the URL's that are above the average weighted factor.

For each factor the URL's above the average weighted factors are documented in 5 different spreadsheets. Appendix 2 shows the URL's for each factor for the sales business unit name. The summary of the factor analysis results are shown in table 7.

	Factor Name	Average weighted factor loadings	Number of URL's
Factor 1 Quote Generation	Quote generation	>7.28	16
Factor 2 Quote Tracking	Quote tracking	> 5.32	17

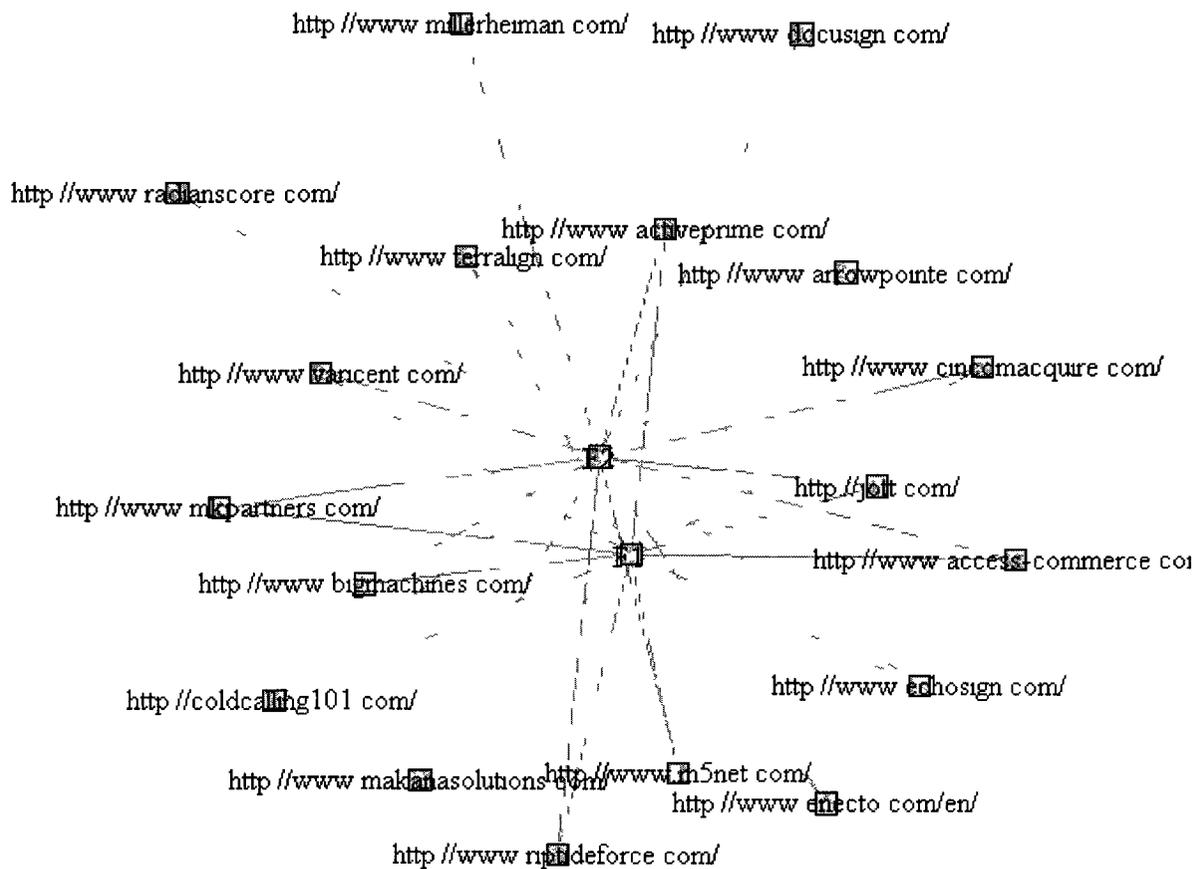
Factor 3 E-Signatures and Sales Contracts	E-signatures and sales contracts	>86.37	41
Factor 4 Sales Territory	Sales territory	> 3.53	16
Factor 5 Events Analysis and Sales Pipeline	Events analysis and sales pipeline	>20.85	18

Table 7 Sales factor analysis

4.3.3 Sales Cluster Analysis

The Scree plot break happens after four factors. This should mean that there should be four strong factors resulting from PCA. Unfortunately, this is not the case for the sales Scree plot since the first two factors have strong factor loadings higher than 0.4 while as the third factor's highest factor loading is 0.136. Cluster analysis can be performed on the first two factors. This is done by first documenting the URL's chosen for factors 1 and 2 in the cluster analysis input file.

Cluster analysis is then performed on the two factors. The graph shows the entire URL's associated to the two factors and merges the common URL's. The plot is shown in graph 2.



Graph 2 Sales Fruchterman Reingold plot

From the plot it shows that all URL's are clustered for those two factors. This is done to show for the sales business units how strong each factor is and what are the companies grouped corresponding to each factor.

The summary of the results for the first two strong factors with keyword loadings of above 0.4 taken from table 4 is shown in table 8, followed by the summary of the sales cluster analysis shown in table 9.

Factor 1 Quote Generation	Loading
Quote generation	0.996
<i>Cumulative Variance</i>	0.086
Factor 2 Quote Tracking	Loading
Quote Tracking	0.997
<i>Cumulative Variance</i>	0.168

Table 8 Summary of sales factor analysis

	Providers of	Percentage of URL's within the cluster
Cluster 1	Quote Management	100%

Table 9 Summary of sales cluster analysis

4.3.4 Sales Factor Analysis Discussion

Table 10 has summarized the sales factor interpretation. The factors are interoperated based on initial knowledge about the definition of selected keywords found in company websites and the literature review. For each factor at least 5 companies have been studied in-depth. This helped the researcher to create a more accurate interpretation of factors.

Factors are named based on their description and the naming can be biased by the researcher's preference.

Factor	Name	Keywords	Interpretation
1	Quote Generation	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Quote AND Generation: With 0.996 Loading, this keyword can be interpreted as a service for the sales department to create quotes</p> <p>Popular and Supported</p>	<p>Companies that are offering quote generation software provide the following type of solution:</p> <p>Management of purchase orders, quotes and proposal generation</p> <p>Example: CPQ - Configure Price Quote from Cameleon Software</p>
2	Quote Tracking	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Quote AND Tracking: With 0.997 Loading, this keyword can be interpreted as a service for the sales department to manage quotes</p> <p>Popular and Supported</p>	<p>Companies that are offering quote tracking software provide the following type of solution:</p> <p>Populate quotes with relevant customer data automatically, automate workflows for quote approvals, track quote history and capture data such as close date, probability of winning and competitors</p> <p>Example: Configurator, Quote, Pricing and Proposals from BIGMACHINES</p>
3	Sales Contracts Management and E-signatures	No factor loadings over 0.4	
4	Sales Territory	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Sales AND Territory: With 0.993 Loading, this</p>	<p>Companies that are offering sales territory software provide the following type of solution:</p> <p>Automatically map new territories according to business</p>

		keyword can be interpreted to ensure aligning the sales territory to the most suitable account executive Popular and Supported	requirements, manage territory alignments by accounts or geography and zip/postal code management Example: TerrAlign 4 from TerrAlign
5	Sales Pipeline and Analyzing Events	The following keyword was used by this factor with loading over 0.4: Analyzing AND Events: With 0.516 Loading, this keyword can be interpreted to analyze sales events Sales AND Pipeline: With 0.716 Loading, this keyword can be interpreted to track and manage the sales pipeline Highly rated and Integrated	Companies that are offering sales pipeline and analyzing events software provide the following type of solution: Analyzing the outcome of a sales event including marketing campaigns as a result of the event and also managing the event setup and scope Predict sales forecasts, track changes in the sales pipeline and analyze projected performance Example: Pipeline Accelerator from Cloud9

Table 10. Sales Factor Interpretation

From table 7 the average weighted factor loadings correspond to how relevant that factor's URL's (products) are to the function it provides. Thus they are ranked as follows:

1. Factor 3 "Sales Contracts Management and E-signatures" software there are 41 products relevant to this functionality.
2. Factor 5 "Sales Pipeline and Analyzing Events" software there are 18 products relevant to this functionality.
3. Factor 1 "Quote Generation" software there are 16 products relevant to this functionality.

4. Factor 2 “Quote Tracking” software there are 17 products relevant to this functionality.
5. Factor 3 “Sales Territory Management” software there are 16 products relevant to this functionality.

4.3.5 Sales Cluster Analysis Discussion

Cluster analysis is one useful method that has been used by researchers in different types of research and use mathematical methods to classify similar objects together. A cluster is a set of entities which are alike, and entities from different clusters are not alike (Rui & Wunsh, 2009). Different strategies have been studied to cluster the offerings and K-mean clustering seemed to be the best candidate for this data. Haung (1998) and Macqueen (1967) identified K-means clustering as a good way of clustering large data set by using similarities grouping. K -means clustering algorithm was developed by J. MacQueen (1967). K-means clustering is an algorithm to classify or to group objects based on attributes/features into K number of groups .The grouping is done by minimizing the sum of squares of distances between data and the corresponding cluster centroid. Thus the purpose of K-mean clustering is to classify the data (Teknomo, 2006).

From the cluster analysis, sales results table 9 shows that both factors can be combined as one. The cluster will be defined as SaaS providers of quote management software. All websites lie within the cluster. That is because any SaaS vendor providing quote generation software will also provide quote tracking software since they go hand-in-hand

and it won't make sense to separate them. Examples of the top products according to keyword weight that provide quote management services are:

1. **Configurator, Quote, Pricing and Proposals** from BIGMACHINE
2. **CPQ - Configure Price Quote** from Cameleon Software
3. **Share Now** from Share Methods
4. **WebSource CPQ (Configure, Price, Quote)** from Webcom Inc.

From the sales plot graph 2 it can be shown that most URL's are shared between the two factors and that is why they form one cluster.

4.3.6 Sales Managerial Insights

- There are not many SaaS products specifically for sales since most SaaS products provide marketing solutions. Since it is the marketing's department job to provide sales with the software they need to function.
- Marketing facilitates the initial phase of the sales process. When the sale comes to a close it is the sales department responsibility to create and maintain the sales quote before transitioning the deal to finance that is why quote management software is essential for the sales department.
- The majority of sales SaaS software that provides quote management solutions is supported and popular.
- Quote generation and tracking form one cluster since they are inter-related as part of quote management software.

4.4 Marketing Results

4.4.1 Marketing Data Analysis

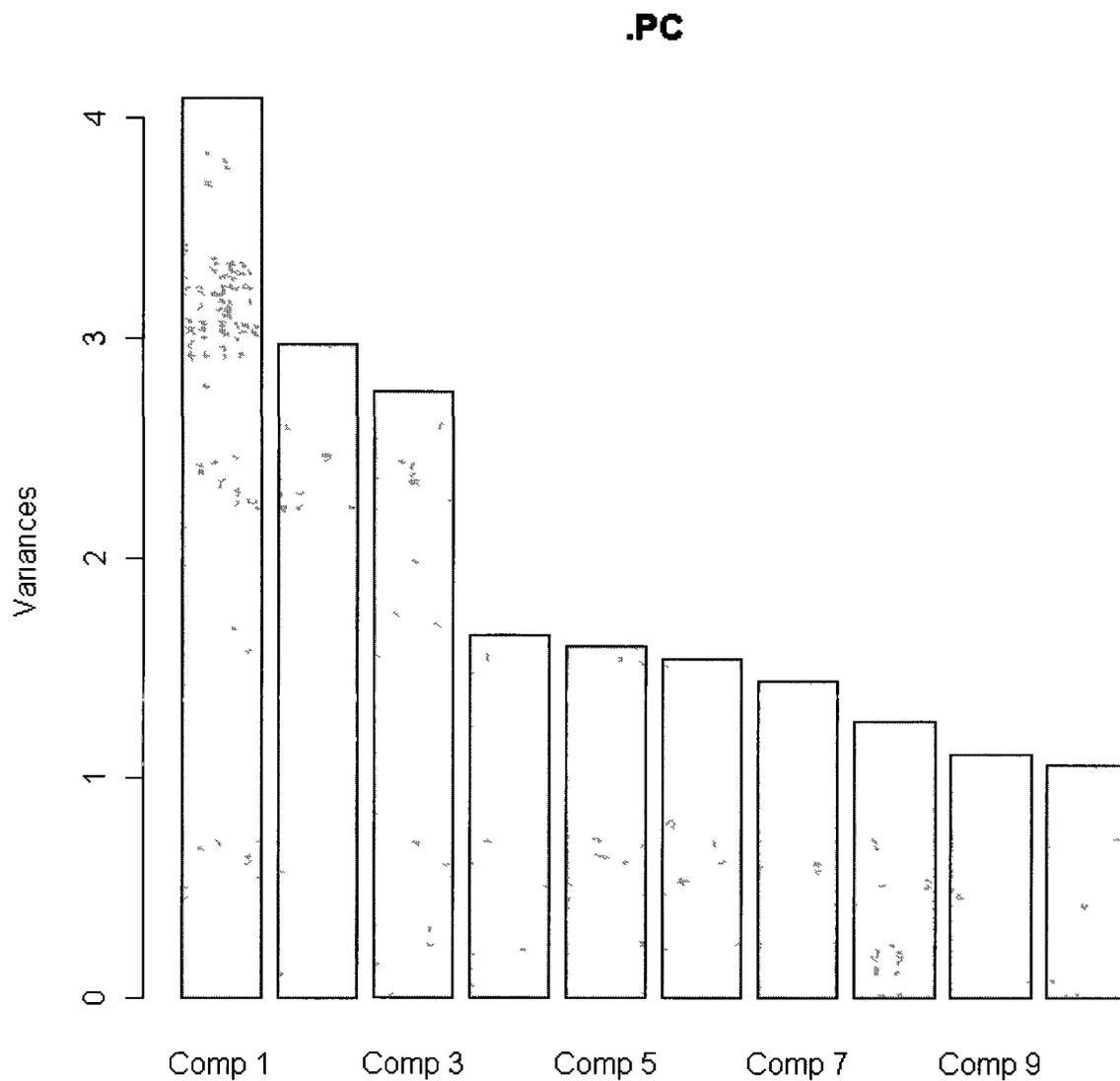
From the entire list of marketing keywords mentioned previously table 11 shows the ones selected since many were dropped because they were duplicate keywords or had no keyword hits:

Marketing							
Keywords selected	Lead AND scoring	Lead AND nurturing	Advertisi ng	Distributio n	Market AND Segmentatio n	Publicity	Promotion
	Internet AND marketing	Campaign s	Managin g AND leads	Market AND research	Budgeting	PR	Events AND organizatio n
	Search AND engine AND marketing	Social AND media AND marketing	Sponsors hip	Cause AND marketing	Demand AND generation	Referral AND marketin g	Media
Keywords dropped	Advertisin g techniques and tracking						

Table 11: Marketing Keywords

After inputting the 21 keywords and 107 URL's onto the keyword search tool, the Scree plot is shown in graph 3.

Here is the Marketing Scree plot:



Graph 3: Marketing Scree plot

From the plot we can see there are up to 10 factors we can use that have an Eigenvalue higher than 1.0. However, the Scree plot break happens after three factors. This means that three strong factors resulted from PCA.

Nurturing									
Lead Scoring	0.937				0.206				
Managing Leads	0.21				0.961		-0.105		
Market Research						0.401			
Market Segmentation				0.196		0.186			0.261
Media	0.114		0.971			0.118			
PR	0.133		0.793	0.17			0.1		
Promotion									0.353
Publicity					0.64				
Referral Marketing		0.995							
Search Engine Marketing			0.367	0.895			0.104	0.196	
Social Media Marketing			0.519	0.715		-0.149	0.116		
Sponsorship			0.249	-0.103		0.148	0.421		-0.133
Cumulative Variance	0.136	0.249	0.342	0.326	0.403	0.515	0.567	0.615	0.684

Table 13: Marketing factor loadings

After calculating the weighted factors and their averages the URL's above the average weighted factors are documented in 9 different spreadsheets. Appendix 3 shows the URL's for each factor for the marketing business unit name. The summary of the factor analysis results is shown in table 14.

	Factor Name	Average weighted factor loadings	Number of URL's
Factor 1 Marketing Automation	Managing leads, lead nurturing and scoring, internet marketing, demand generation, campaigns, media and PR	> 46.16	18
Factor 2 Relationship Marketing	Cause and referral marketing and events organization	> 0.000241	4
Factor 3 Integrated Marketing Communications	Campaigns, PR, media, search engine marketing, social media marketing and sponsorship	>40.19	16
Factor 4 Permission Marketing	Advertising, budgeting, market segmentation, PR, search engine marketing and social media marketing	> -10.84	28
Factor 5 Lead Management	Lead management and scoring, internet marketing and publicity	>1.9	17
Factor 6 Market Research	Market research and segmentation; media and sponsorship	> 14.2	34

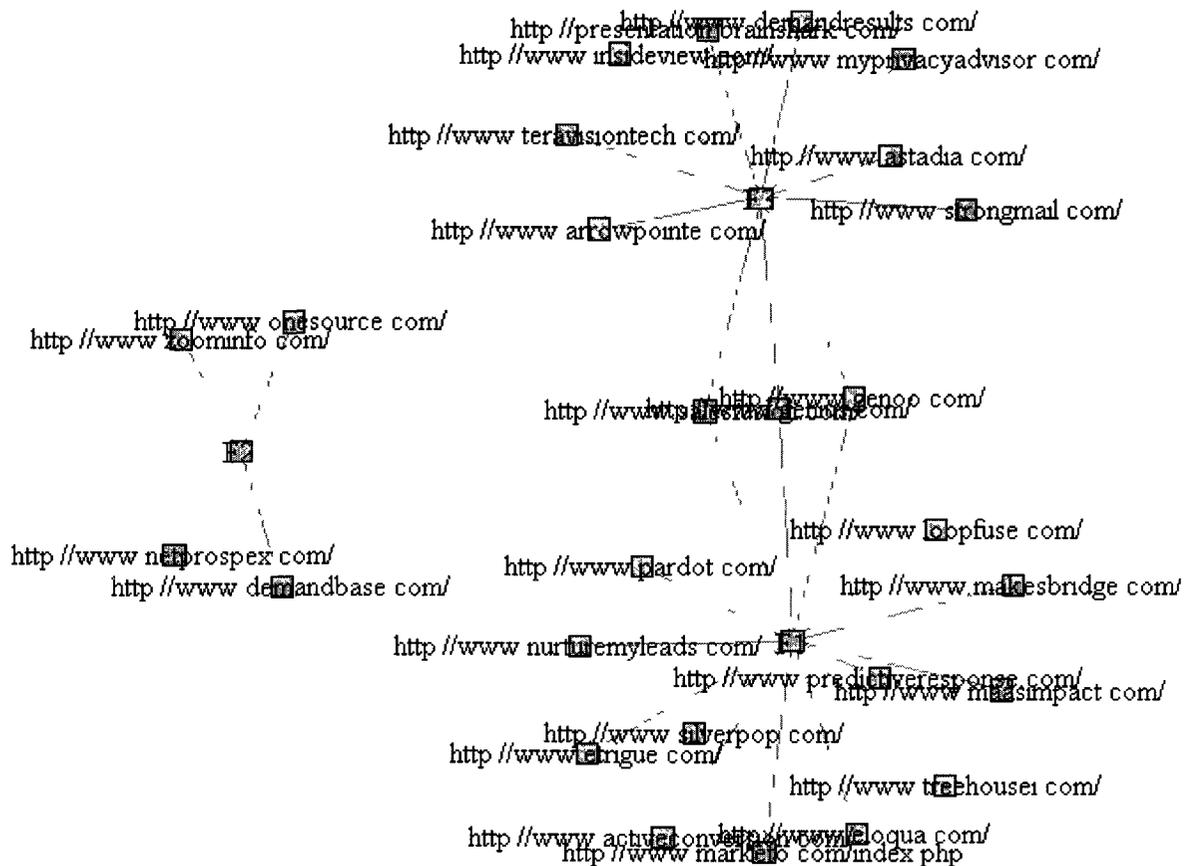
Factor 7 Advertising	Advertising, search engine marketing, social media marketing and sponsorship	> 5.44	21
Factor 8 Internet Marketing	Campaigns, search engine marketing and internet marketing	> 4.1	26
Factor 9 Campaign Management	Advertising; distribution; market segmentation; campaigns and PR	> 18.8	28

Table 14 Marketing factor analysis summary

4.4.3 Marketing Cluster Analysis

Since the Scree plot break occurs for the first three factors, cluster analysis can be performed for them. This is done by first documenting the URL's chosen for factors 1, 2 and 3 in the cluster analysis input file.

Cluster analysis is then performed on the three factors. The following graph shows the entire URL's associated to the three factors and merges the common URL's. The plot is shown in graph 4.



Graph 4: Marketing Fruchterman Reingold plot

From the plot it shows that all URL's are clustered for those three factors. This is done to show the strength of each factor and which grouped companies correspond to which factor for the marketing business unit. In this case factor one is the strongest followed by factor three and then factor two.

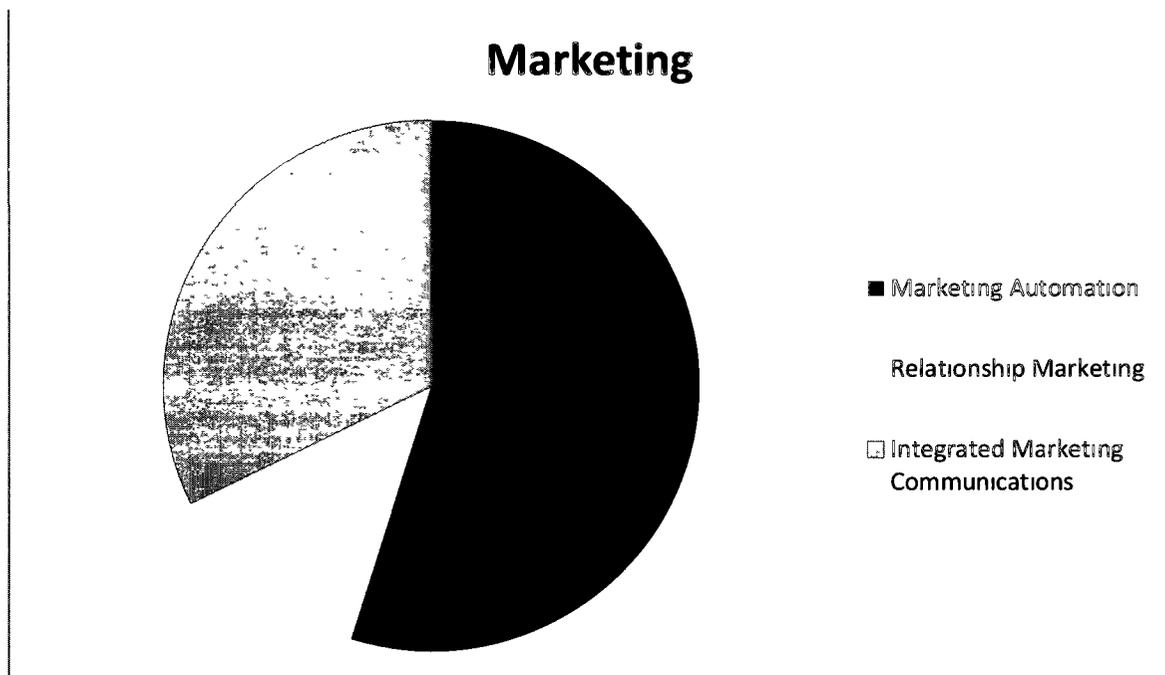
The summary of the results for the first three strong factors with keyword loadings of above 0.4 taken from table 9 is shown in table 15 followed by the summary of marketing cluster analysis shown in table 16 and the marketing pie chart that displays the percentages of the number of URL's per cluster in graph 5.

Factor 1 Marketing Automation	Loading
Demand generation	0.95
Lead scoring	0.937
Lead nurturing	0.927
Campaigns	0.782
<i>Cumulative Variance</i>	0.136
Factor 2 Relationship Marketing	Loading
Event organization	0.995
Referral marketing	0.995
Cause marketing	0.891
<i>Cumulative Variance</i>	0.249
Factor 3 Integrated Marketing Communications	Loading
Media	0.971
PR	0.793
Social Media Marketing	0.519
<i>Cumulative Variance</i>	0.342

Table 15. Summary of marketing factor analysis

	Providers of	Percentage of URL's within the cluster
Cluster 1	Marketing Automation	54.84%
Cluster 2	Relationship Marketing	12.9%
Cluster 3	Integrated Marketing Communications	32.26%

Table 16 Summary of marketing cluster analysis



Graph 5- Cluster analysis marketing pie chart

4.4.4 Marketing Factor Analysis Discussions

Table 17 has summarized the marketing factor interpretation.

Factor	Name	Keywords	Interpretation
1	Marketing Automation	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Campaigns: With 0.782 Loading, this keyword can be interpreted as a service for the marketing department to create campaigns</p> <p>The following keyword was used by this factor with loading over 0.4:</p> <p>Demand AND Generation: With 0.95 Loading, this keyword can be interpreted as a service that drives awareness and interest in a company's products or services</p> <p>The following keyword was used by this factor with loading over 0.4:</p> <p>Lead AND Nurturing: With 0.927 Loading, this keyword can be interpreted to ensure leads are properly nurtured and maintained</p> <p>The following keyword was used by this factor with loading over 0.4:</p> <p>Lead AND Scoring: With 0.937 Loading, this keyword can be interpreted to ensure leads are properly scored and ranked</p> <p>Popular, Highly rated,</p>	<p>Companies that are offering marketing automation software provide the following type of solution:</p> <ul style="list-style-type: none"> • E-mail campaigns • Stay in touch campaigns for all prospects that are not immediately ready to engage with sales • Develop automated nurturing campaigns • Maximizing lead generation by developing lead lifecycles • Campaigns that ensures leads will never grow stagnant or lost <p>Example: Campaign Management from Eloqua</p> <p>Demand generation tools such as campaign management, lead management, marketing analysis, and data management.</p> <p>Example: Demand Generation from Marketo</p> <p>Lead nurturing which include:</p> <ul style="list-style-type: none"> • Building relationships with qualified prospects that are not yet ready to speak with sales • Trigger targeted messages to prospects based on specific behaviors or profile updates • Automate multi-step marketing programs that build relationships with qualified prospects over

		Integrated and Supported	<p>time.</p> <p>Example: Lead Nurturing from Marketo</p> <p>Lead scoring which include:</p> <ul style="list-style-type: none"> • Automatically qualifying leads and measuring their interest and engagement • Track online activity to measure buying interest and sales-readiness • Decrease scores over time based on inactivity. <p>Example: Lead Scoring from Marketo</p>
2	Relationship Marketing	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Cause AND Marketing: With 0.891 Loading, this keyword can be interpreted as a service that facilitates cause marketing</p> <p>Events AND Organization: With 0.995 Loading, this keyword can be interpreted as a service that facilitates in organizing events</p> <p>Referral AND Marketing: With 0.995 Loading, this keyword can be interpreted as ensuring promotion of products or services to new customers through referrals</p>	<p>Companies that are offering relationship marketing software provide the following type of solution:</p> <p>Develop “cause marketing” campaigns and organize “cause marketing” events.</p> <p>Organize product launches, webcasts, press conferences, web seminars and promotional events.</p> <p>Develop digital marketing tools such as blogs, video broadcasts and digital brand engagement to help in referral marketing.</p>

3	Integrated Marketing Communications	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Media: With 0.971 Loading, this keyword can be interpreted to take advantage of the media for marketing purposes</p> <p>Public AND Relations: With 0.793 Loading, this keyword can be interpreted to maintain the public image of the business</p> <p>Social AND Media AND Marketing: With 0.519 Loading, this keyword can be interpreted to allow people to build social and business connections, share information and collaborate on projects online</p> <p>Popular, Highly rated, and Supported</p>	<p>Companies that are offering integrated marketing communications software provide the following type of solution:</p> <p>Creating media products, applications and campaigns. Track social media conversations and web traffic</p> <p>Example: gURL from Genius</p> <p>Protect the organization's image and ensure compliance across all channels to prevent PR issues</p> <p>Example: Gryphon from PrivacyAdvisor</p> <p>Turn social media data into value by using reports, dashboards and lead automation capabilities from sources such as FaceBook, LinkedIn, blogs and Twitter.</p> <p>Example: SEO for Salesforce from DemandResults</p>
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4	Permission Marketing	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Search AND Engine AND Marketing: With 0.895 Loading, this keyword can be interpreted to promote company websites by increasing their visibility in search engine result pages</p> <p>Social AND Media AND Marketing: With 0.715 Loading, this keyword can be interpreted to allow people to build social and business connections, share information and collaborate on projects online</p> <p>Supported</p>	<p>Companies that are offering permission marketing software provide the following type of solution:</p> <ul style="list-style-type: none"> • Creating search engine marketing campaigns • Creating associated site landing page content that are integrated with other media • Making sure to deliver site visitors to precisely what they are searching for <p>Example: PageVester - Landing Pages Creation from Acquisio</p> <p>Turn social media data into value by using reports, dashboards and lead automation capabilities from sources such as FaceBook, LinkedIn, blogs and Twitter.</p> <p>Example: SEO for SalesForce from DemandResults</p>
5	Lead Management	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Managing AND Leads: With 0.961 Loading, this keyword can be interpreted to facilitate a business connection between its outgoing consumer advertising and the responses to that advertising</p> <p>Publicity: With 0.64 Loading, this keyword can be interpreted to facilitate the promotion</p>	<p>Companies that are offering lead management software provide the following type of solution:</p> <p>Capturing and managing leads. Data planning, lead planning, lead qualification, lead routing, lead nurturing and metrics.</p> <p>Example: CRM Accelerator Workflow from Sales Fusion</p> <p>In order to gain publicity, promotions and lead generation need to be part of the solution provided.</p> <p>Example: BoldChat Pro from</p>

		of the business Supported and Integrated	BoldChat
6	Market Research	The following keyword was used by this factor with loading over 0.4: Market AND Research: With 0.401 Loading, this keyword can be interpreted to help in gathering information about markets or customers Popular, Supported and Low Rated	Companies that are offering market research software provide the following type of solution: Create customer, employee, and website surveys. Create online forms to gather information such as partner, event and product registration. Also launching and reporting on those surveys and forms. Example: Market Research Surveys from Vanguard Vista
7	Advertising	The following keyword was used by this factor with loading over 0.4: Advertising: With 0.968 Loading, this keyword can be interpreted to ensure the business product reaches a vast number of customers Sponsorship: With 0.421 Loading, this keyword can be interpreted as a form of advertising Popular and Supported	Companies that are offering advertising software provide the following type of solution: Creating successful advertising programs to create lead relationships, awareness and brand value. Example: BullsEye from 3 Markeeters
8	Internet Marketing	The following keyword was used by this factor with loading over 0.4: Internet AND Marketing: With 0.966 Loading, this keyword can be interpreted to	Companies that are offering internet marketing software provide the following type of solution: Internet marketing solutions such as search engine marketing, social media

		ensure all internet marketing tools are incorporated. Supported	marketing, E-mail marketing, affiliate marketing and Geo-targeting Example: SEO for SalesForce from DemandResults
9	Campaign Management	The following keyword was used by this factor with loading over 0.4: Campaigns: With 0.56 Loading, this keyword can be interpreted as a service for the marketing department to create campaigns Supported and Low Rated	Companies that are offering marketing automation software provide the following type of solution: <ul style="list-style-type: none"> • E-mail campaigns • Stay in touch campaigns for all prospects that are not immediately ready to engage with sales • Develop automated nurturing campaigns • Maximizing lead generation by developing lead lifecycles • Campaigns that ensures leads will never grow stagnant or lost Example: Lead Generation from Marketo

Table 17 Marketing Factor Interpretation

From table 13 the average weighted factor loadings correspond to how relevant that factor's URL's are to the function it provides. Thus they are ranked as follows:

1. Factor 1 "Market Automation" software there are 18 products relevant to this functionality
2. Factor 3 "Integrated Marketing Communications" software there are 16 products relevant to this functionality

3. Third factor 9 “Campaign Management” software there are 28 products relevant to this functionality
4. Fourth factor 6 “Market Research” software there are 34 products relevant to this functionality
5. Fifth factor 7 “Advertising” software there are 21 products relevant to this functionality
6. Sixth factor 8 “Internet Marketing” software there are 26 products relevant to this functionality
7. Seventh factor 5 “Lead Management” software there are 17 products relevant to this functionality
8. Eighth factor 2 “Relationship Marketing” software there are 4 products relevant to this functionality
9. Factor 4 “Permission Marketing” software there are 28 products relevant to this functionality.

4.4.5 Marketing Cluster Analysis Discussion

From the cluster analysis, marketing results table 15 shows that each factor forms its own cluster. That is because each cluster provides a different functionality than the other and thus different SaaS applications. Examples of the top products for the first cluster according to keyword weight that provide marketing automation services are:

1. **Marketing Automation, Lead Management and Email Marketing** from Marketo

2. **Marketing Automation, Demand Generation, Email Marketing Solution**
from Genius Inc.
3. **Eloqua Express** from Eloqua
4. **eTrigue Professional** from eTrigue

Examples of products for the second cluster according to keyword weight that provide relationship marketing services are:

1. **ZoomInfo for Salesforce.com** from Zoominfo
2. **NetProspex Verified Business Contacts** from NetProspex
3. **Demandbase for Appexchange** from Demandbase
4. **Lead and Prospect Planner** from OneSource

Examples of products for the third cluster according to keyword weight that provide integrated marketing communications services are:

1. **SEO for Salesforce** from DemandResults
2. **SalesView: Drive Sales Productivity with Integrated Sales Intelligence**
from InsideView
3. **BrainShark for SalesForce** from BrainShark
4. **Clicktools** from Clicktools

From the marketing plot graph 4 it can be shown that most URL's are a part of factor 1 followed by factor 3 with a few shared between them such as salesfusion, and finally a few URL's are part of factor 2. This is also demonstrated on the cluster pie chart graph 12. The reason for that is that marketing automation is essential for any marketing

business unit functionality, while as integrated marketing communication is the future of marketing and that is why the number of URL's is growing.

4.4.6 Marketing Managerial Insights

- There are many SaaS products available for marketing since most Force.com SaaS products provide marketing solutions. It is the marketing department job to provide sales with the software they need to function and leads to go after.
- Marketing automation is the use of technology to manage and automate the process of converting prospective customers into actual buyers. By automating the various tasks and workflows involved in demand generation, lead management, and sales and marketing alignment, marketing automation. “Fifty-four percent of firms with mature lead management practices employ specialized applications that help them manage, nurture, score, and route leads compared with only 15% of less mature firms.” - How Technology Improves Lead Management, Forrester Research (Marketo, 2009).
- Relationship marketing as a form of direct marketing which emphasizes on customer retention and satisfaction. This results from marketing automation, integrated marketing communication like social media marketing, search optimization, lead generation and PR. Relationship marketing is an essential final and on-going part of the marketing process.
- Integrated marketing communication includes social media marketing (usually center on efforts to create content that attracts attention and encourages readers to

share it with their social network), search engine optimization, media marketing, affiliate programs, E-mail campaigns, blogs, public relations and industry relations.

- Social media marketing is increasing vastly, 40% of demand results survey respondents reported that they had made a purchase based on an ad they had seen on a social media site, while the vast majority welcomed advertising in social media experiences.
- The majority of marketing SaaS software that provides marketing automation and integrated marketing communication solutions is highly rated, supported and popular. While as relationship marketing SaaS software's are free, highly rated but unpopular (not many people use it).

4.5 Product Management Results

4.5.1 Product Management Data Analysis

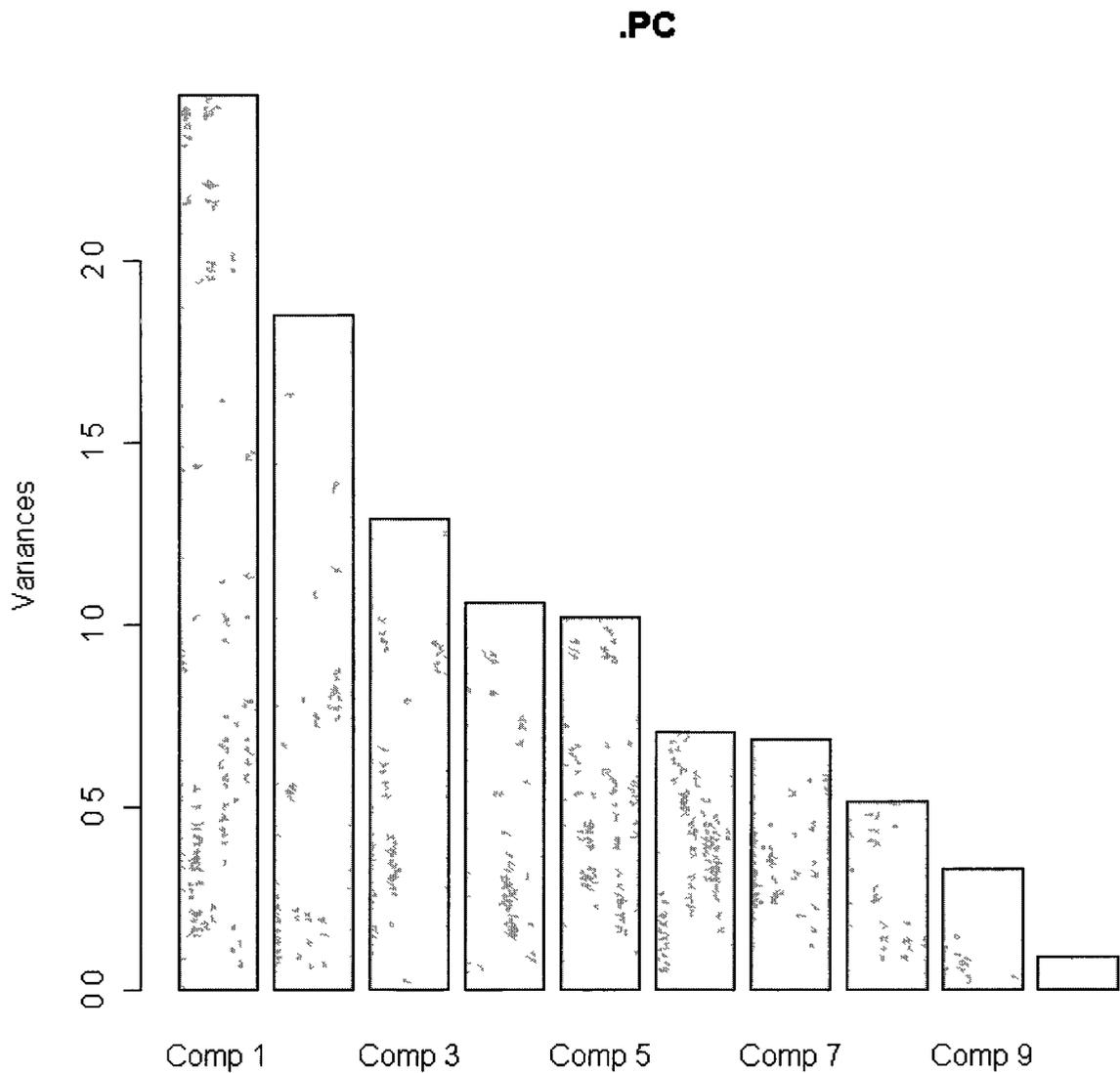
From the entire list of product management keywords mentioned previously table 18 shows the ones selected since many were dropped because they were duplicate keywords or had no keyword hits:

Product Management							
Keywords selected	Product AND definition	Product AND management	Product AND planning	Product AND promotion	Competition	Catalogue	Product AND documentation
Keywords dropped	Gathering market requirements	Product lifecycle requirements					

Table 18. Product Management Keywords

After inputting the 7 keywords and 44 URL's onto the keyword search tool, the plot is shown in graph 6.

Here is the Product Management Scree plot:



Graph 6: Product Management Scree plot

From the plot we can see there are up to 3 factors we can use that have an Eigenvalue higher than 1.0. However, the Scree plot break happens after two factors. This means that two strong factors resulted from PCA.

4.5.2 Product Management Factor Analysis

Table 19 shows the data validation product management test results before going into factor analysis.

Metric	Limit	Result
Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy	> 0.5	0.998
Bartlett's test of significance	<0.05	2.2e-16
Cumulative variance	> 0.3	0.561

Table 19. Product management data validation

Table 20 shows the factor loadings for the 3 factors resulting from the factor analysis.

Keywords	Factor 1	Factor 2	Factor 3
Catalogue	-0.143		
Competition	0.959	0.18	
Product Definition	0.109	0.52	0.175
Product Documentation	-0.415	0.154	
Product Management	0.359	0.238	0.898

Product Planning	-0.218		
Product Promotion	-0.104		0.217
Cumulative Variance	0.323	0.466	0.561

Table 20: Product Management factor loadings

After calculating the weighted factors and their averages the URL's above the average weighted factors are documented in 3 different spreadsheets. Appendix 4 shows the URL's for each factor for the Product management business unit name. Table 21 shows the summary of the factor analysis results.

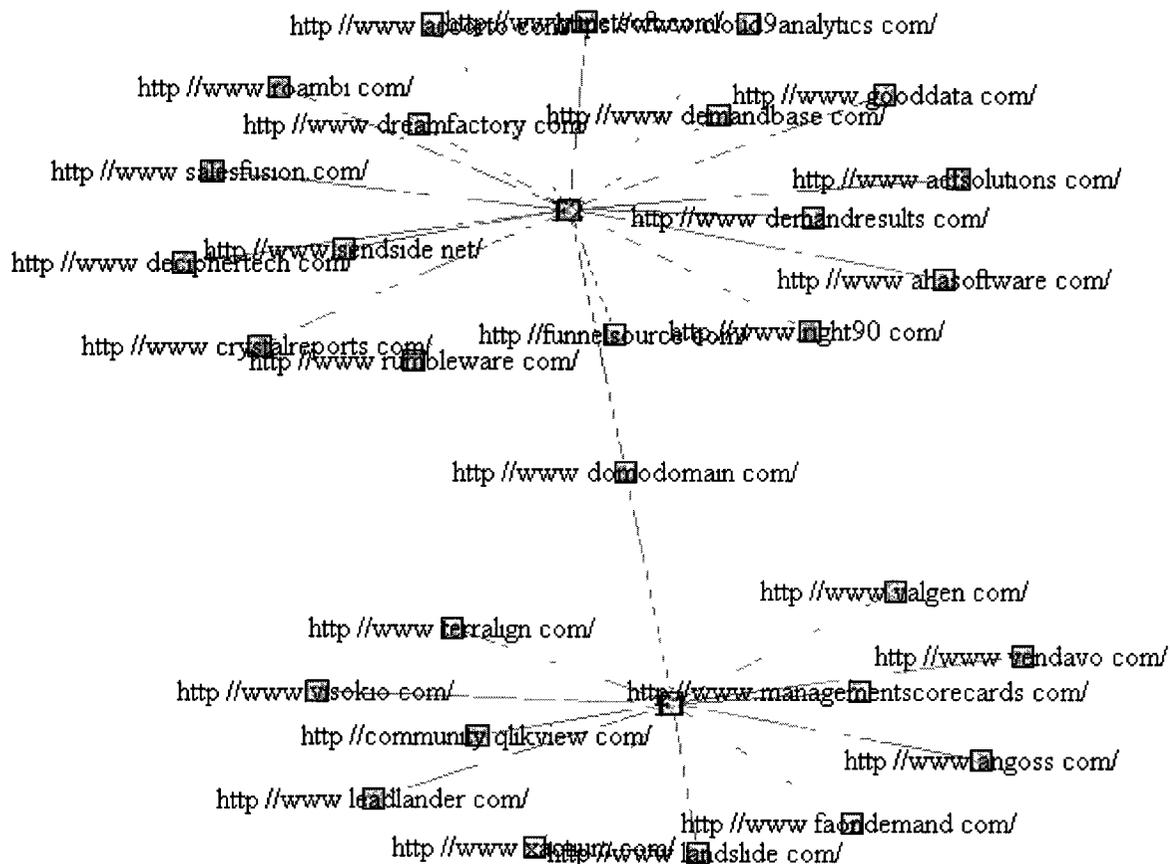
	Factor Name	Average weighted factor loadings	Number of URL's
Factor 1 Competitive Analysis	Competitive analysis, defining new products and manage products	> -12.67	12
Factor 2 Product Design	Defining new products, manage products, product documentation and monitoring competition	> 16.67	18
Factor 3 Product Management	Defining new products, manage products and product promotion	> 11.39	18

Table 21: Product management factor analysis summary

4.5.3 Product Management Cluster Analysis

Since the Scree plot break occurs for the first two factors, cluster analysis can be performed for those two factors. This is done by first documenting the URL's chosen for factors 1 and 2 in the cluster analysis input file.

Cluster analysis is then performed on the two factors. The graph shows the entire URL's associated to the two factors and merges the common URL's. The plot is shown in graph 7.



Graph 7: Product management Fruchterman Reingold plot

From the plot it shows that all URL's are clustered for those two factors. This is done to show the strength of each factor and which grouped companies correspond to which factor for the marketing business unit.

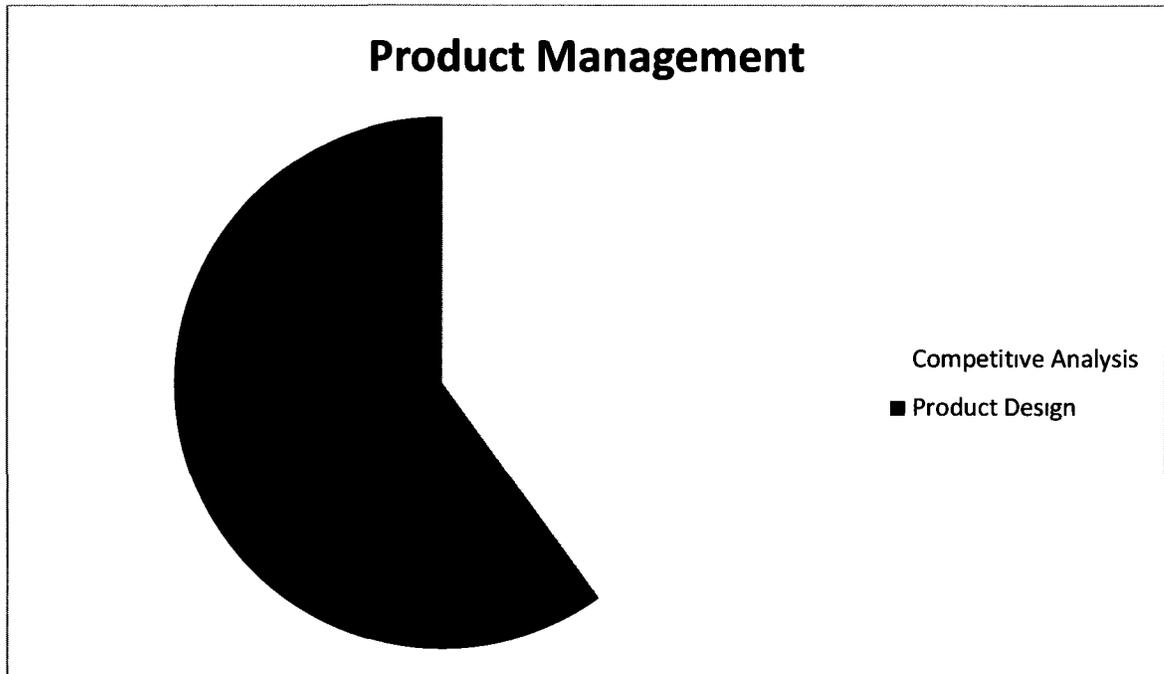
The summary of the results for the first three strong factors with keyword loadings of above 0.4 taken from table 14 is shown in table 22 followed by the summary of product management cluster analysis shown in table 23 and the product management pie chart that displays the percentages of the number of URL's per cluster in graph 8.

Factor 1 Competitive Analysis	Loading
Competition	0.959
<i>Cumulative Variance</i>	0.323
Factor 2 Product Design	Loading
Product Definition	0.991
<i>Cumulative Variance</i>	0.466

Table 22 Summary of product management factor analysis

	Providers of	Percentage of URL's within the cluster
Cluster 1	Competitive Analysis	40%
Cluster 2	Product Design	60%

Table 23. Summary of product management cluster analysis



Graph 8. Cluster analysis product management pie chart

4.5.4 Product Management Factor Analysis Discussions

Table 24 summarizes the product management factor interpretation.

Factor	Name	Keywords	Interpretation
1	Competitive Analysis	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Competition: With 0.959 Loading, this keyword can be interpreted as a service for the product management team to compare their products in terms of pricing and functionality with their competitors</p>	<p>Companies that are offering competitive analysis software provide the following type of solution:</p> <p>Unfortunately, there still isn't any SaaS product out there that provides a specific solution for competitive analysis. However, there are various marketing metrics and analytics SaaS tools that can do a similar function when combined.</p>

2	Product Design	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Product AND Definition: With 0.52 Loading, this keyword can be interpreted as an initial service to identify, define and design the organization's products</p>	<p>Companies that are offering product definition software provide the following type of solution:</p> <p>Unfortunately, there aren't many SaaS product out there that provides a specific solution for product definition. However, there are various marketing metrics and analytics SaaS tools that can do a similar function when combined.</p>
3	Product Management	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Product AND Management: With 0.898 Loading, this keyword can be interpreted to ensure organization products are managed properly</p> <p>Highly rated, Unpopular, Free, Integrated and Supported</p>	<p>Companies that are offering product management software provide the following type of solution:</p> <p>Planning or forecasting all products at any stage of the product lifecycle.</p> <p>Example: Decipher Analytics from DecipherTech</p>

Table 24 Product Management Factor Interpretation

From table 19 the average weighted factor loadings correspond to how relevant that factor's URL's are to the function it provides. Thus they are ranked as follows:

1. Factor 1 "Monitoring Competition" software there are 19 products somewhat relevant to this functionality

2. Factor 3 “Product Definition” software there are 18 products somewhat relevant to this functionality
3. Factor 4 “Product Management” software there are 18 products relevant to this functionality
4. Factor 2 “Competitive Analysis” does not have any relevant products as mentioned in the interpretation table.

4.5.5 Product Management Managerial Insights

- There is a lot of room for SaaS vendors to research and develop product management software tools that provides solutions for competitive analysis such as comparing pricing, functionality and benefits to users with their own products.
- Product management is a niche business unit and is always considered as a part of the marketing business unit therefore there aren't many SaaS solutions for it.
- The reason product management software is highly rated and unpopular is because not many users know about those tools or use it. However, users who know about it are satisfied with the outcome and rate it highly.
- The product management software tools are free, integrated and supported because it's a new market offer. Thus it's attracting as many users as possible without adding a price tag except for premium services. It also offers support and integration with the user's systems.

4.6 Support and Maintenance Results

4.6.1 Support and Maintenance Data Analysis

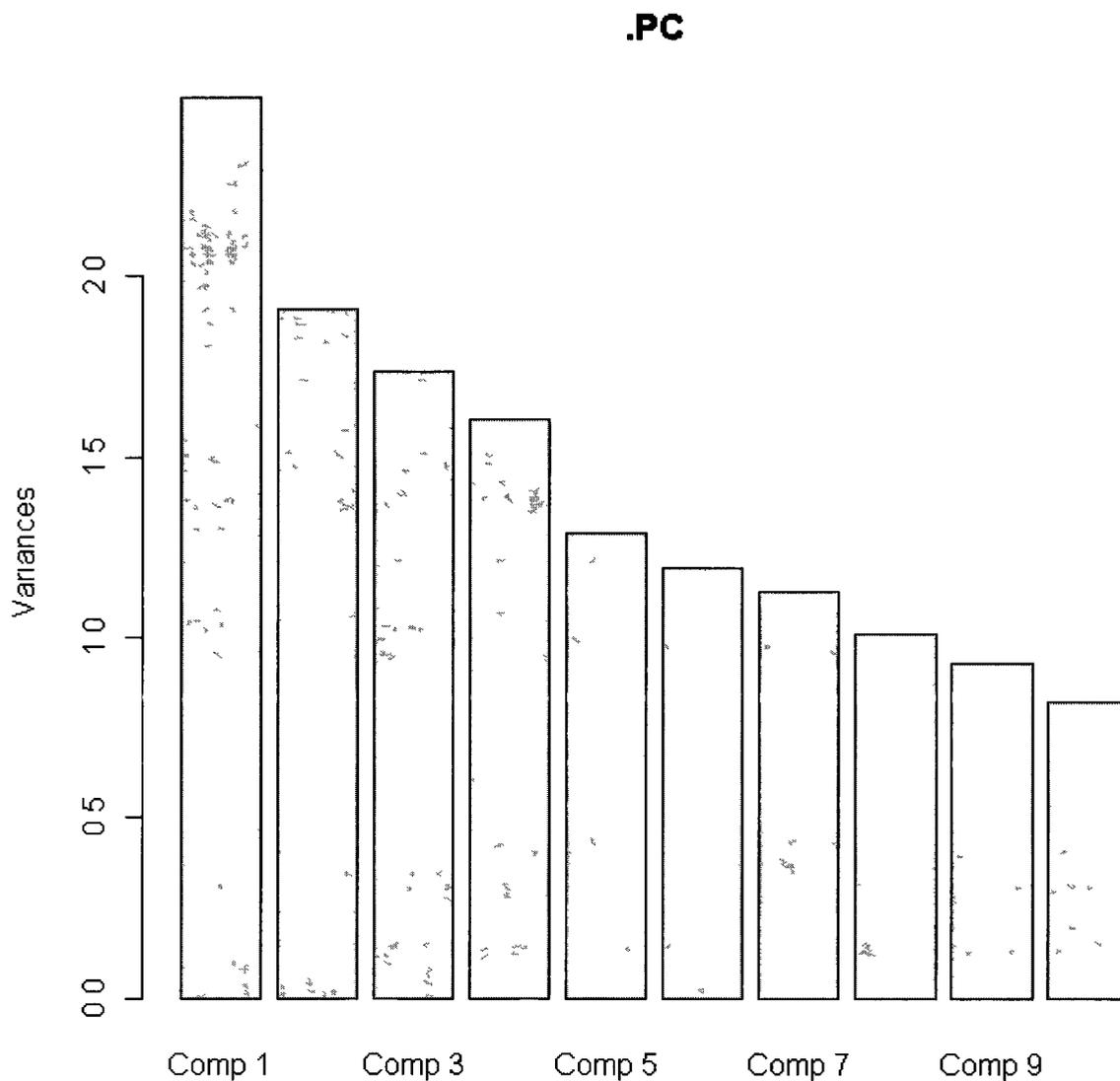
From the entire list of support and maintenance keywords mentioned previously table 25 shows the ones selected since many were dropped because they were duplicate keywords or had no keyword hits:

Support and Maintenance							
Keywords selected	Outsourcing	Call AND center	Helpdesk	Customer AND service	SLA	Customer AND service	Reporting
	IT	Community	E-mail AND integration	Knowledge AND base	Contract and management	Ticket	Licensees
Keywords dropped	Automation						

Table 25 Support and Maintenance Keywords

After inputting the 13 keywords and 57 URL's onto the keyword search tool, the plot is shown in graph 9.

Here is the Support and Maintenance Scree plot:



Graph 9: Support and Maintenance Scree plot

From the plot we can see there are up to 7 factors we can use with an Eigenvalue higher than 1.0. However, the Scree plot break happens after four factors. This means that four strong factors resulted from PCA.

4.6.2 Support and Maintenance Factor Analysis

Table 26 shows the data validation support and maintenance test results before going into factor analysis.

Metric	Limit	Result
Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy	> 0.5	0.999
Bartlett's test of significance	<0.05	2.2e-16
Cumulative variance	> 0.3	0.575

Table 26: Support and maintenance data validation

Table 27 shows the factor loadings for the 7 factors resulting from the factor analysis:

Keywords	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Call Center	0.876			0.146		0.163	0.196
Community		0.943			0.229		
Contract Management							
Customer Service	0.159		-0.11			0.112	0.497
E-mail Integration							
Helpdesk	0.159			0.141		0.9	0.129
IT	0.272	0.278	0.392	0.383			0.189
Knowledge Base	-0.107		0.416	0.304	-0.119		0.117

Licensees				0.162	0.974		
Outsourcing	0.775					-0.124	
Reporting			0.136	0.978			
SLA		0.508					
Ticket		0.991					
Cumulative Variance	0.186	0.265	0.342	0.417	0.481	0.539	0.575

Table 27 Support and maintenance factor loadings

After calculating the weighted factors and their averages the URL's above the average weighted factors are documented in 7 different spreadsheets. Appendix 5 shows the URL's for each factor for the Support and Maintenance business unit name. Table 28 shows the summary of the factor analysis results.

	Factor Name	Average weighted factor loadings	Number of URL's
Factor 1 Call Center Operations	Call center, customer service, Helpdesk, IT, outsourcing technical support	> 69.09	22
Factor 2 Support Services Management	SLA and ticket tracking and community/social networking and IT	> 25.83	19

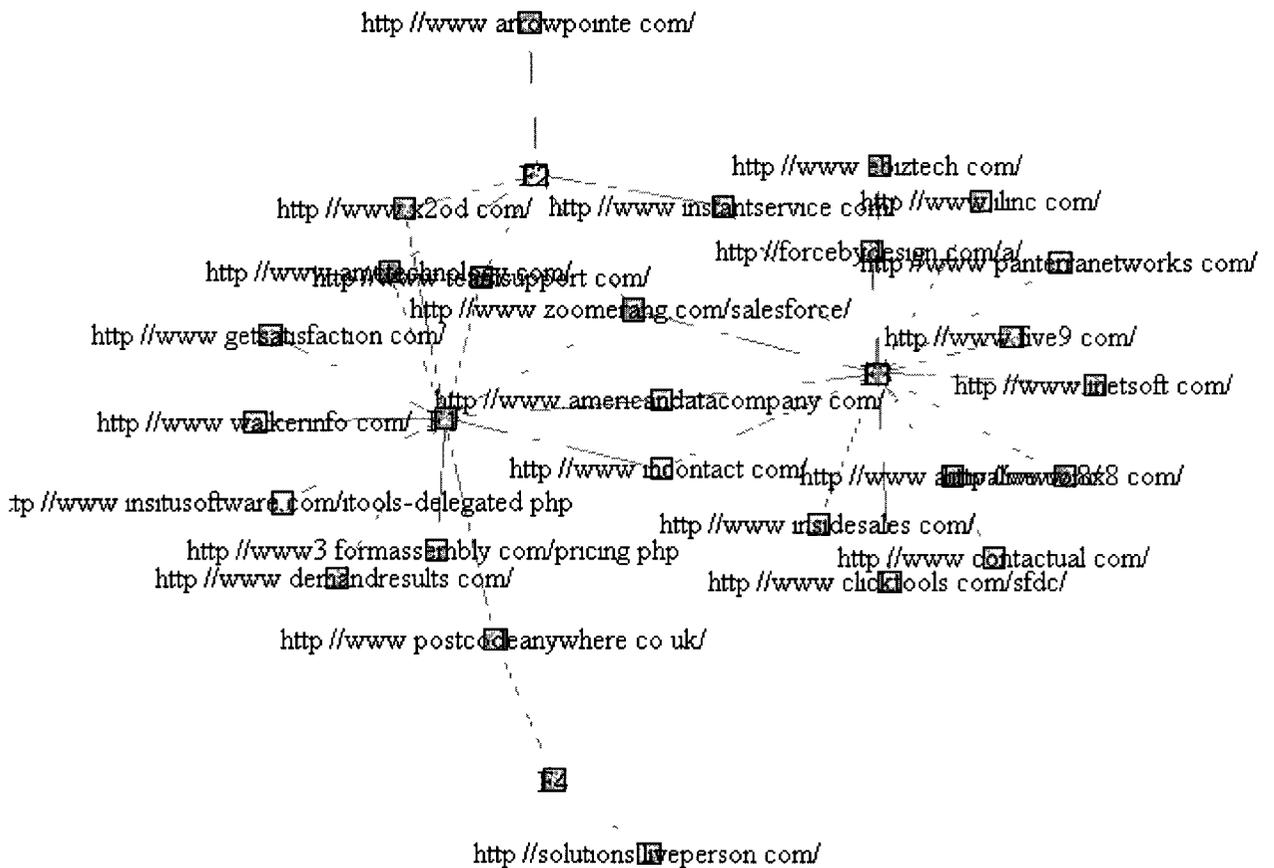
Factor 3 Knowledge Base	IT, reporting services and Knowledge Base	> 20.46	28
Factor 4 Support Metrics	Call center, Helpdesk, IT, KB, Licensees, reporting services	> 36.74	25
Factor 5 Licensees Management	Community/social networking and Licensees	> 11.33	33
Factor 6 Helpdesk	Call center, customer service and Helpdesk	> 13.44	37
Factor 7 Customer Service	Call center, customer service, Helpdesk, IT and knowledge base	> -13.24	21

Table 28 Support and maintenance factor analysis summary

4.6.3 Support and Maintenance Cluster Analysis

Since the Scree plot break occurs for the first four factors, cluster analysis can be performed for those four factors. This is done by first documenting the URL's chosen for factors 1, 2, 3 and 4 in the cluster analysis input file.

Cluster analysis is then performed on the four factors. The graph shows the entire URL's associated to the four factors and merges the common URL's. The plot is shown in graph 10.



Graph 10. Support and maintenance Fruchterman Reingold plot

From the plot it shows that all URL's are clustered for those four factors. This is done to show the strength of each factor and which grouped companies correspond to which factor for the support and maintenance business unit. In this case factor three is the strongest followed by factor one, then factor two and finally factor four.

The summary of the results for the first four strong factors with keyword loadings of above 0.4 taken from table 19 is shown in table 29 followed by the summary of support and maintenance cluster analysis shown in table 30 and the support and maintenance pie chart that displays the percentages of the number of URL's per cluster in graph 11.

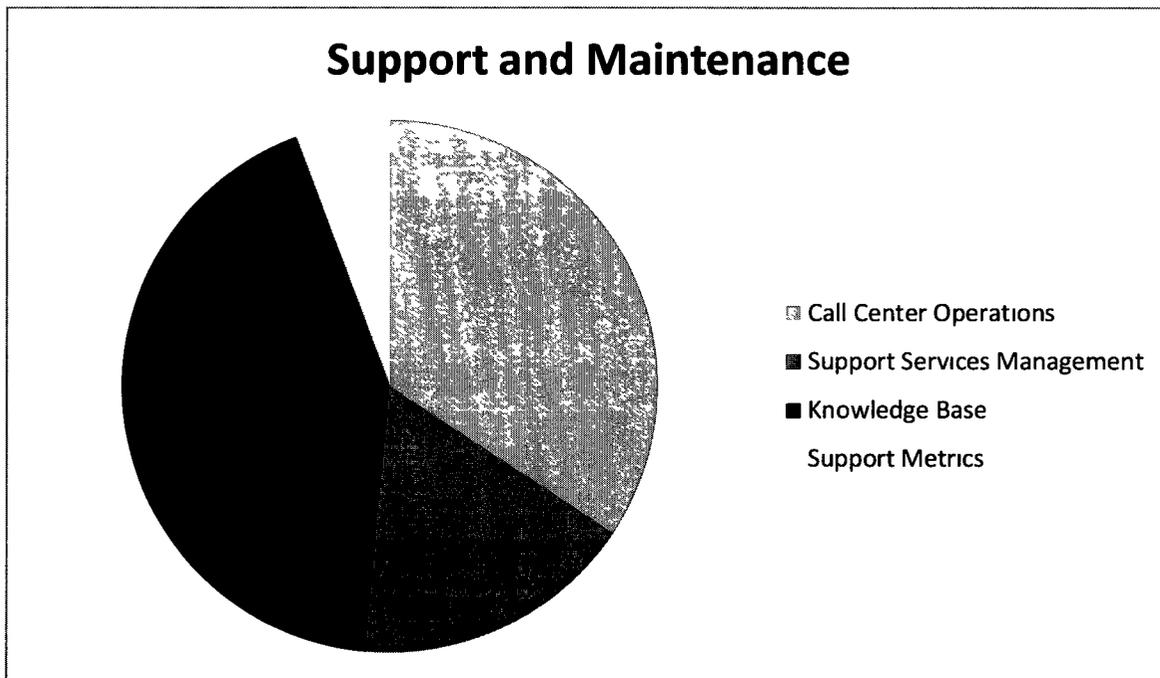
Factor 1 Call Center Operations	Loading
Call Center	0.95
Outsourcing	0.937
<i>Cumulative Variance</i>	0.186
Factor 2 Support Services Management	Loading
Ticket	0.995
Community	0.995
SLA	0.508
<i>Cumulative Variance</i>	0.265
Factor 3 Knowledge Base	Loading
Knowledge Base	0.46
<i>Cumulative Variance</i>	0.342
Factor 4 Support Metrics	Loading
Reporting	0.978

<i>Cumulative Variance</i>	0.417
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Table 29: Summary of support and maintenance factor analysis

	Providers of	Percentage of URL's within the cluster
Cluster 1	Call Center Operations	34.29%
Cluster 2	Support Services Management	17.14%
Cluster 3	Knowledge Base	42.86%
Cluster 4	Support Metrics	5.7%

Table 30 Summary of support and maintenance cluster analysis



Graph 11: Cluster analysis support and maintenance pie chart

4.6.4 Support and Maintenance Factor Analysis Discussions

Table 31 summarizes the support and maintenance factor interpretation.

Factor	Name	Keywords	Interpretation
1	Call Center Operations	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Call AND Center: With 0.876 Loading, this keyword can be interpreted as a service to facilitate the management of call centers</p> <p>The following keyword was used by this factor with loading over 0.4:</p> <p>Outsourcing: With 0.775 Loading, this keyword can be interpreted to facilitate outsourcing operations and solutions</p> <p>Supported</p>	<p>Companies that are offering call center operations software provide the following type of solution:</p> <p>Real-time flow of interactions between CRM applications and call center solutions. This includes agent-desktop and routing of interactions. Facilitate real-time information flow via interactive voice response systems, E-mail servers and web chat applications. E-mail management systems that facilitate e-mail routing, e-mail content analysis and response management. Ensure that the right customer reaches the right agent at the right time.</p> <p>Outsourcing operations such as staffing solutions, CRM engagements, professional services and customer self-services</p> <p>Example: AMC Multi-Channel Integration Server from AMC Technology</p>
2	Support Services Management	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Community: With 0.943 Loading, this keyword</p>	<p>Companies that are offering support services software provide the following type of solution:</p> <p>Developing enterprise</p>

		<p>can be interpreted as a service that provides an interactive social software for all support cases and users</p> <p>SLA: With 0.508 Loading, this keyword can be interpreted as a service that defines and manages Service Level Agreements</p> <p>Ticket AND Management: With 0.991 Loading, this keyword can be interpreted as a service that facilitates the development and management of ticketing systems</p> <p>Supported and Integrated</p>	<p>communication and collaboration software.</p> <p>Connecting customers across disjointed channels to reduce support costs.</p> <p>Example: Supportal from Jive Software</p> <p>Develop SLA programs and warning/violation times for every phase. Taking into consideration ticket types and severities. Assigning customers to SLAs and also defining internal SLAs to track and manage non-related customer tickets.</p> <p>Example: Integrated customer service and defect tracking from TeamSupport</p> <p>Creating as many types of tickets as possible such as issues, problems, incidents, tasks and projects. Manage ticket queues. E-mail to ticket functionality. Ticket submission portal. Provide workflow tools that define the steps a ticket has to go through before it can be resolved.</p> <p>Example: Ticket management from TeamSupport</p>
3	Knowledge Base	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Knowledge AND Base: With 0.416 Loading, this keyword can be interpreted to manage the knowledge base</p> <p>Supported and</p>	<p>Companies that are offering knowledge base software provide the following type of solution:</p> <p>Creates a knowledge base according to all the cases created and their responses, answers and solutions. Automate knowledge base where when a case is created</p>

		Integrated	<p>the knowledge base tool would identify the question and provide suggested answers right away without the need of an agent. Shortcuts can be created to answer commonly asked questions. Agents can search the knowledge base by key words and find shortcuts to quickly answer email and web chat interactions.</p> <p>Example: IntelliResponse from ATG</p>
4	Support Metrics	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Reporting: With 0.978 Loading, this keyword can be interpreted to ensure reporting on support metrics is done properly</p> <p>Supported</p>	<p>Companies that are offering support metrics software provide the following type of solution:</p> <p>Creating reports and dashboards for support analytics including virtualization, interactive and ad-hoc reports. Scheduled reports. Report design. Business logic embedding including formulas and workflows. Support metrics include initial response time, case origin, severity, case reason, date cases opened and closed and status of case.</p> <p>Example: Style Intelligence - Reporting & Dashboard App from InetSoftware</p>
5	Licensees Management	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Licensees AND Management: With 0.974 Loading, this keyword can be interpreted to ensure user, product and</p>	<p>Companies that are offering licensees management software provide the following type of solution:</p> <p>The ability to issue various types of software licenses for products or product groups. Manage license types such as trial, subscription, volume,</p>

		support licensees are managed properly Supported and Integrated	enterprise and perpetual licenses and also support contracts Example: Trax from RipTide
6	Helpdesk	The following keyword was used by this factor with loading over 0.4: Helpdesk: With 0.9 Loading, this keyword can be interpreted to provide helpdesk solutions for not just support but also HR and IT Highly rated, Unpopular, Supported and Integrated	Companies that are offering helpdesk software provide the following type of solution: Setting customers to the right agents right away. Manage phone, E-mail and chat channels all in one application. Track all customer interactions. Example: OnDemand Contact Center from Contactual
7	Customer Service	The following keyword was used by this factor with loading over 0.4: Customer AND Service: With 0.497 Loading, this keyword can be interpreted to ensure customer service optimization and agent performance Unpopular, Low rated and Supported	Companies that are offering customer service software provide the following type of solution: Routing the most appropriate agent to better serve customers. Display information related to the caller. View customer service report metrics such as customer average wait-time, total number of calls diverted to an agent, total number of calls abounded, agent average handle time and total number of handled calls. Example: Web Impresario from Elix

Table 31 Support and Maintenance Factor Interpretation

From table 25 the average weighted factor loadings correspond to how relevant that factor's URL's are to the function it provides. Thus they are ranked as follows:

1. Factor 1 “Call Center Operations” software there are 22 products relevant to this functionality
2. Factor 4 “Support Metrics” software there are 25 products relevant to this functionality
3. Factor 2 “Support Services Management” software there are 19 products relevant to this functionality
4. Fourth factor 3 “Knowledge Base” software there are 28 products relevant to this functionality
5. Fifth factor 6 “Helpdesk” software there are 37 products relevant to this functionality
6. Sixth factor 5 “Licensees Management” software there are 33 products relevant to this functionality
7. Factor 7 “Customer Service” software does not have many relevant products.

4.6.5 Support and Maintenance Cluster Analysis Discussion

From the cluster analysis support and maintenance results table 27 shows that each factor forms its own cluster. That is because each cluster provides a different functionality than the other and thus different SaaS applications. Examples of the top products for the first cluster according to keyword weight that provide call center operations are:

1. **The Killer Config** from Forcebydesign
2. **AMC Multi-Channel Integration Server** from AMC Technology
3. **Walker PowerInsights** from Walkerinfo

4. **OnDemand Call Center Platform** from LiveOps

Examples of products for the second cluster according to keyword weight that provide support management services are:

1. **Integrated customer service and defect tracking** from TeamSupport
2. **Contact Center CTI Agent Adapter** from inContact
3. **Get Satisfaction Integration** from Demandbase
4. **Supportal** from JiveSoftware

Examples of products for the third cluster according to keyword weight that provide knowledge base services are:

1. **Linvio Portal** from Linvio
2. **IntelliResponse** from ATG
3. **Percent Complete** from DemandResults
4. **iLinc for SalesForce** from iLinc

Examples of products for the fourth cluster according to keyword weight that provide support metrics services are:

1. **Style Intelligence for Salesforce - Reporting & Dashboard** from InetSoftware
2. **IntelliResponse** from ATG
3. **Time Track** from AmericanDataCompany
4. **Feedback Analytics** from Kampyle

From the support and maintenance plot graph 10 it can be shown that most URL's are a part of factor 3 followed by factor 1 and finally a few URL's are part of factor 2 and 4. Factors 1 and 2 share a lot URL's such as inContact, AmericanDataCompany and Zoomerang, since call center operations and support services management almost have the same functionality. The reason factor 3 has a lot of URL's is because knowledge base products are shared in almost all support and maintenance SaaS providers.

4.6.6 Support and Maintenance Managerial Insights

- Support and maintenance SaaS tools provides solutions on a large scale enterprise level
- Support and maintenance SaaS tools have average ratings and not many reviews because most support and maintenance software is built in-house or on-premise and users are not at that point yet to take advantage of the support and maintenance SaaS tools available
- Support services, helpdesk, and customer services SaaS tool providers have almost the same SaaS features. Since they all have the same functionality. The differences are support services are mainly used by customers and include ticket management and workflow features. Helpdesk is used for both customers and internal users and relies more on the user interface. Customer service can also be used by business units other than support and maintenance and that's why its SaaS products are not specific to just the support and maintenance business unit.

- Knowledge base is in almost all support and maintenance SaaS tools since it is an essential part of its functionality

4.7 Project Management Results

4.7.1 Project Management Data Analysis

From the entire list of project management keywords mentioned previously table 32 shows the ones selected since many were dropped because they were duplicate keywords or had no keyword hits:

Project Management							
Keywords selected	Project AND initiation	Project AND planning	Project AND execution	monitoring	Project AND completion	Project AND risks	Administration
	Termination	Flagging	Project AND design	Equipment	Budgeting	Deliverables	Contract
Keywords dropped	Resources allocation	Stakeholder analysis	Plan contractin g	Source selection	Information distribution	Team development	

Table 32: Project Management Keywords

After inputting the 14 keywords and 9 URL's onto the keyword search tool the R tool gives out an error message. That is because the number of keywords is larger than the number of URL's. Since there aren't many available standalone (usually part of other business unit applications) SaaS project management applications out there. Therefore there won't be any results for this specific business unit name.

4.8 IT Results

4.8.1 IT Data Analysis

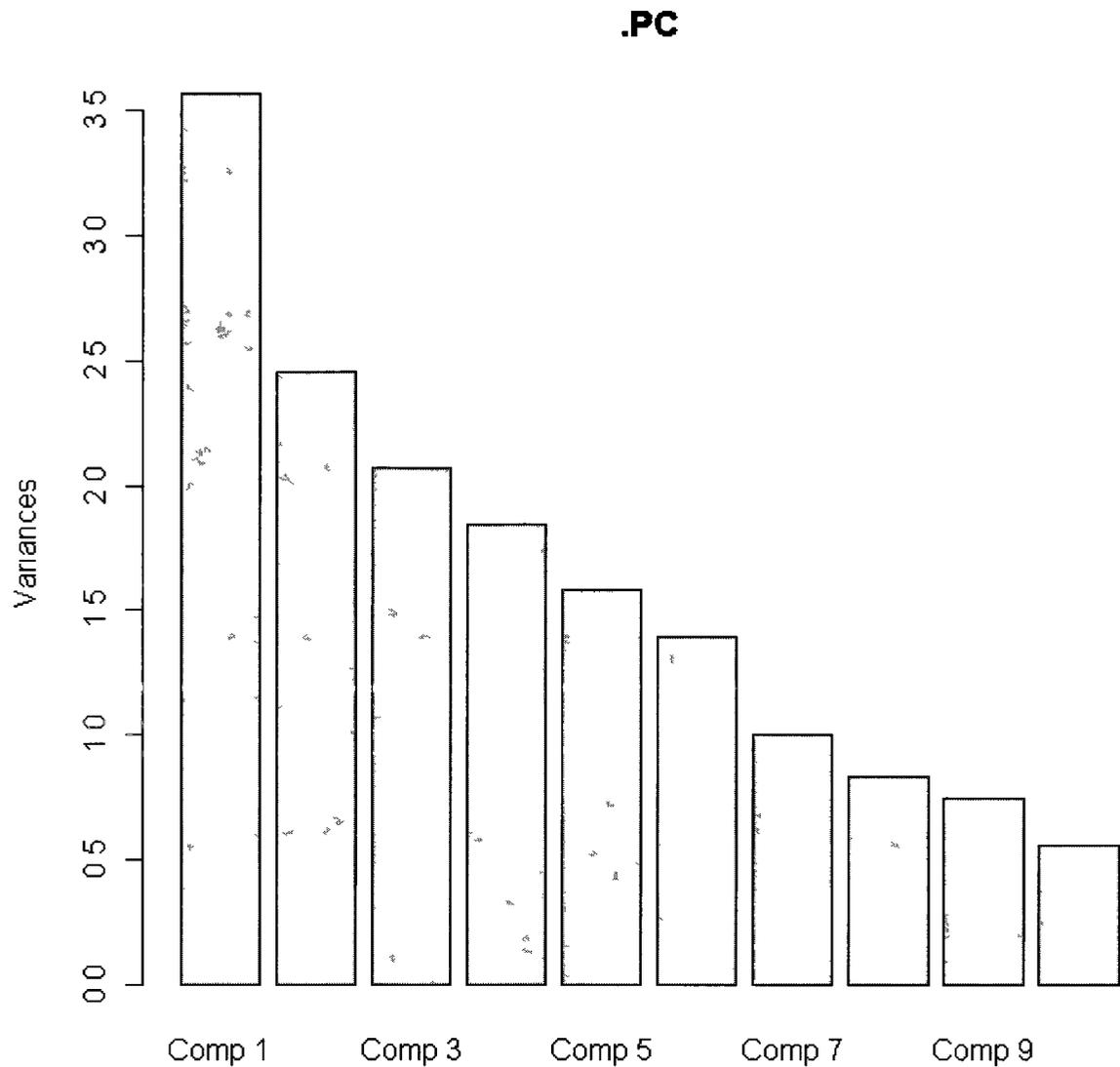
From the entire list of IT keywords mentioned previously table 33 shows the ones selected since many were dropped because they were duplicate keywords or had no keyword hits:

IT							
Keywords selected	Document AND sharing	Conversion	Storage	Backups	Replication	Data AND entry	Data and migration
	Data and Validation	Statistical AND analysis	Data AND warehousing	Data AND mining	Data AND transmission	Virus AND tracker	Content AND tracker
Keywords dropped	Reporting	Profanity tracker	E-mail	Data tabulation			

Table 33: IT keywords

After inputting the 14 keywords and 26 URL's onto the keyword search tool, the plot is shown in graph 12.

Here is the IT Scree plot:



Graph 12 IT Scree plot

From the plot we can see there are up to 7 factors we can use that have an Eigenvalue higher than 1.0. However, the Scree plot break happens after only one factor. This means that only one strong factor resulted from PCA.

Table 34 shows the data validation IT test results before going into factor analysis

Metric	Limit	Result
Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy	> 0.5	0.134
Bartlett’s test of significance	<0.05	2.2e-16
Cumulative variance	> 0.3	0.746

Table 34: IT data validation

Since KMO is less than 0.5 factor analysis won’t be accurate for the IT business unit.

Therefore there won’t be any factor analysis results for this specific business unit name.

4.9 Finance Results

4.9.1 Finance Data Analysis

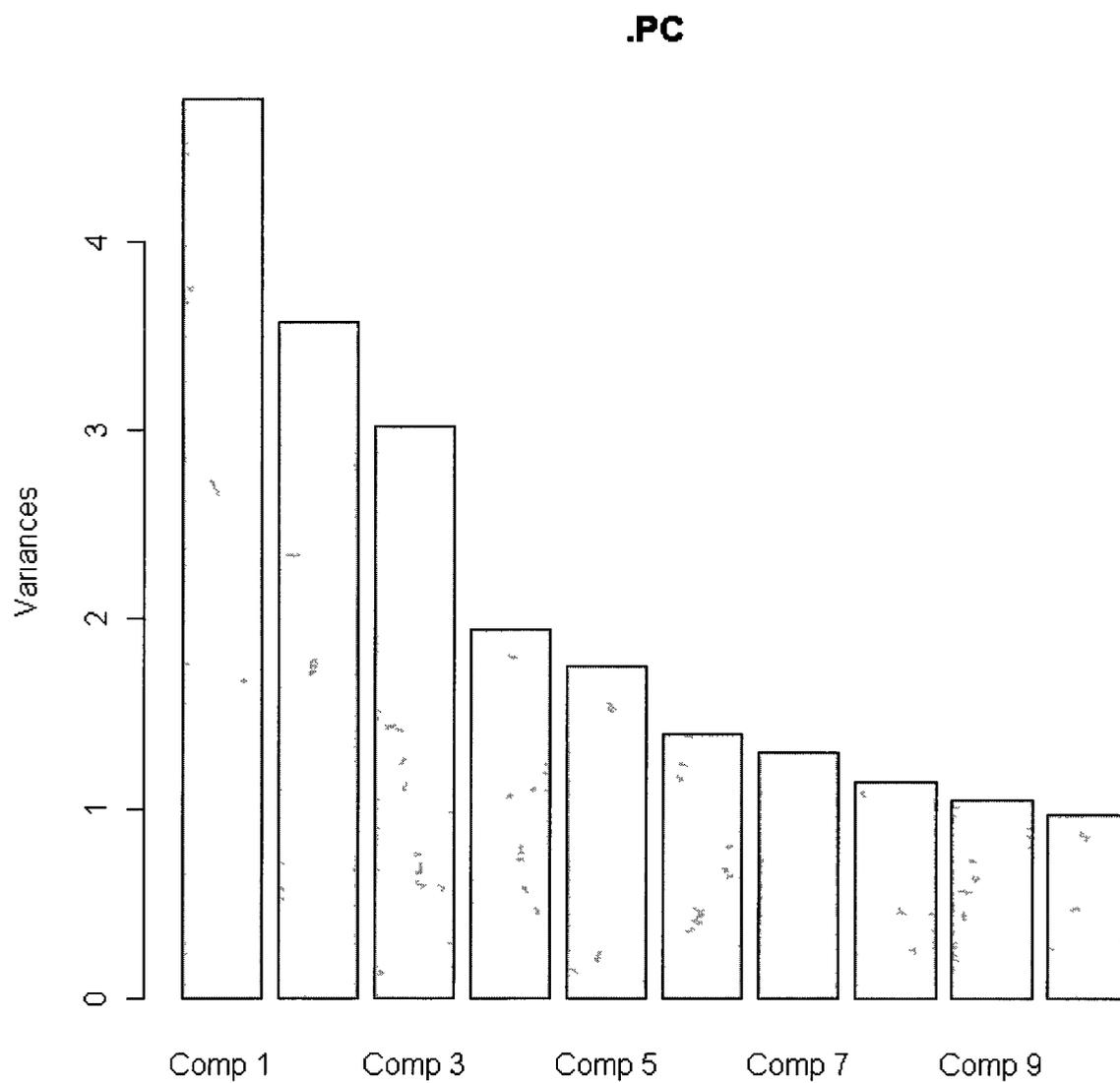
From the entire list of finance keywords mentioned previously table 35 shows the ones selected since many were dropped because they were duplicate keywords or had no keyword hits:

Finance							
Keywords selected	Budgeting	Payroll	Equities	Travel	Vacation	Working AND capital	Inventory
	Credit	Bonds	Shareholder	Audits	Treasury	Investment	Invoice
	Accounts AND payable	Billing AND shipping	Cash AND flow	Debt	Financial AND reports	Statutory AND holiday	Compensation
Keywords dropped	Tax administration	Cash holding	Contract setup	Public debt	Tax reports		

Table 35: Finance keywords

After inputting the 21 keywords and 55 URL's onto the keyword search tool, the plot is shown in graph 13.

Here is the Finance Scree plot:



Graph 13 Finance Scree plot

From the plot we can see there are up to 6 factors we can use that have an Eigenvalue higher than 1.0. However, the Scree plot break happens after three factors. This means that three strong factors resulted from PCA.

Table 26 shows the data validation Finance test results before going into factor analysis

Metric	Limit	Result
Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy	> 0.5	5.72e-11
Bartlett's test of significance	<0.05	2.2e-16
Cumulative variance	> 0.3	0.618

Table 36 Finance data validation

Since KMO is less than 0.5 factor analysis won't be accurate for the Finance business unit. Therefore there won't be any factor analysis results for this specific business unit name.

4.10 HR Results

4.10.1 HR Data Analysis

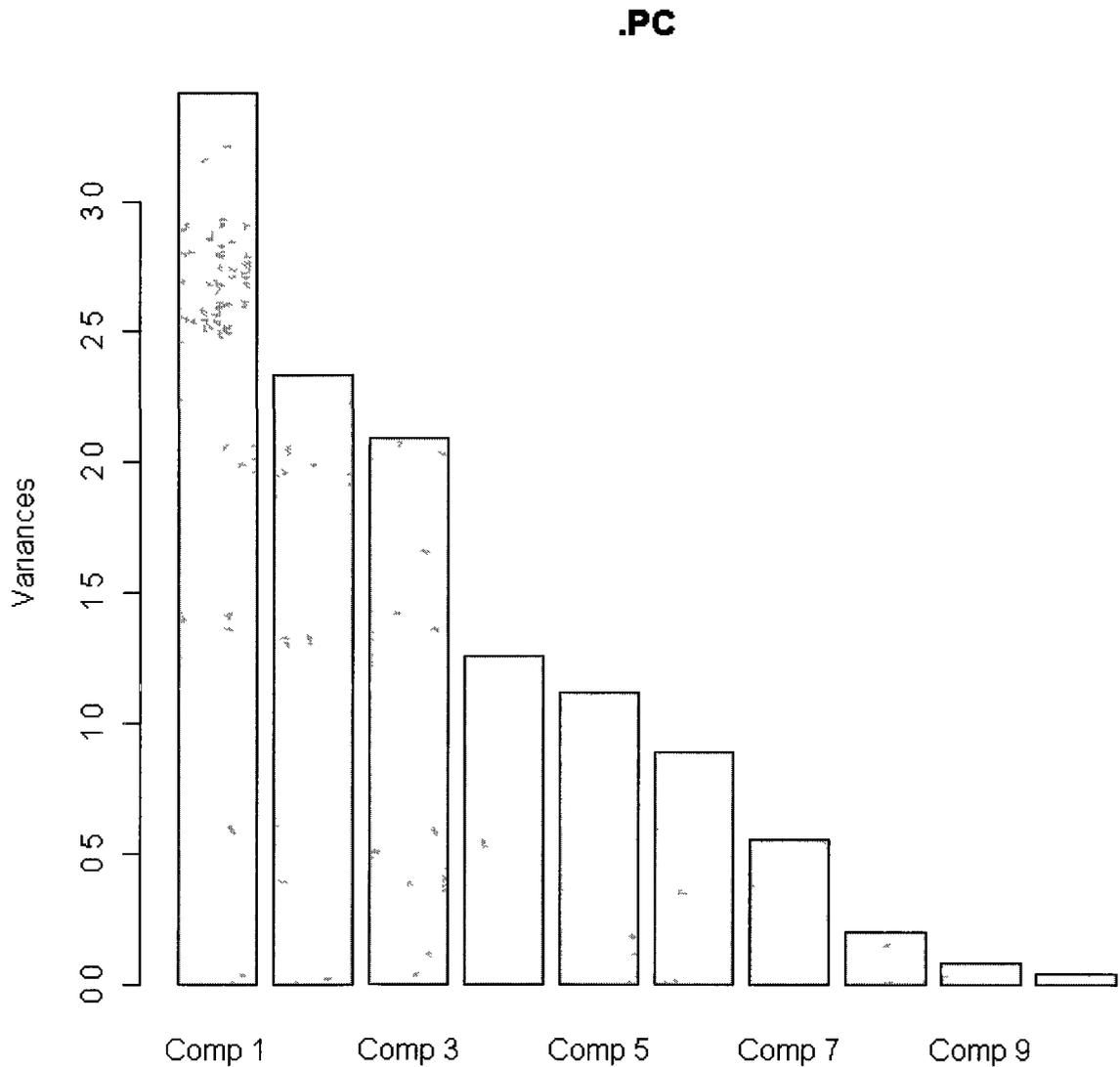
From the entire list of HR keywords mentioned previously table 37 shows the ones selected since many were dropped because they were duplicate keywords or had no keyword hits:

HR							
Keywords selected	Recruitment	Training	Evaluation	Promotions	Transfer	Record AND keeping	Career AND development
	Appraisal	Employee AND benefits					
Keywords dropped	Competency mapping						

Table 37: HR keywords

After inputting the 9 keywords and 15 URL's onto the keyword search tool, the plot is shown in graph 14.

Here is the HR Scree plot:



Graph 14. HR Scree plot

From the plot we can see there are up to 6 factors we can use that have an Eigenvalue higher than 1.0. However, the Scree plot break happens after three factors. This means that three strong factors resulted from PCA.

4.10.2 HR Factor Analysis

Table 38 shows the data validation HR test results before going into factor analysis

Metric	Limit	Result
Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy	> 0.5	0.78
Bartlett's test of significance	<0.05	2.2e-16
Cumulative variance	> 0.3	0.872

Table 38: HR data validation

Table 39 shows the factor loadings for the 6 factors resulting from the factor analysis:

Keywords	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Appraisal			0.87		0.255
Career Development		0.958			
Employee Benefits	0.799	0.108	-0.185	-0.127	
Evaluation		0.897	0.214	-0.148	0.123
Promotions	0.902		0.377		0.104
Record Keeping				-0.127	-0.155
Recruitment	-0.103	0.232	0.706	0.595	-0.234
Training	-0.129	-0.102		0.958	
Transfer		0.163	0.148		0.894
Cumulative Variance	0.212	0.539	0.669	0.782	0.872

Table 39: HR factor loadings

After calculating the weighted factors and their averages the URL's above the average weighted factors are documented in 6 different spreadsheets. Appendix 6 shows the URL's for each factor for the HR business unit name. Table 40 shows the summary of the factor analysis results.

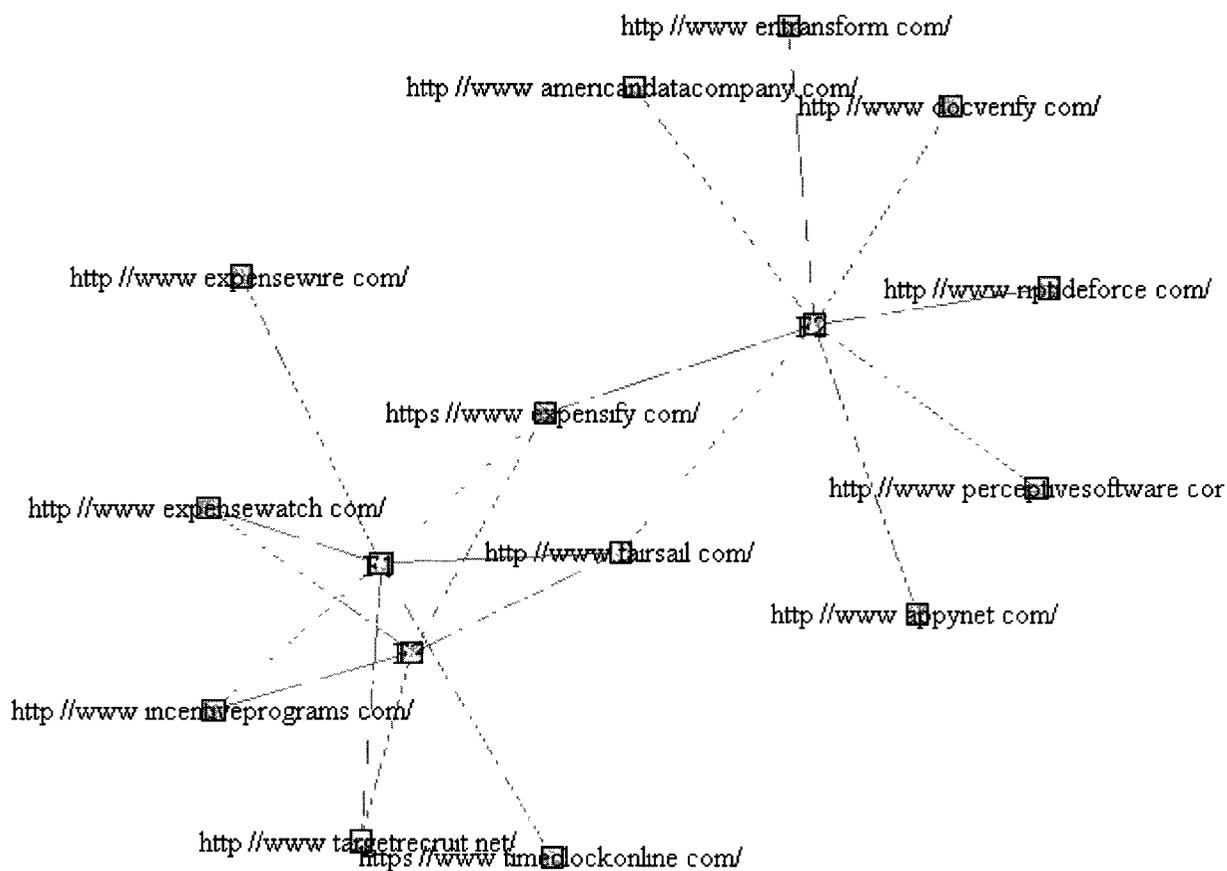
	Factor Name	Average weighted factor loadings	Number of URL's
Factor 1 Employee Promotion	Employee benefits and promotions	> 6.87	7
Factor 2 Career Development	Career development , evaluation, recruitment and transfer	> -9.48	8
Factor 3 Recruitment and Performance Reviews	Appraisal, evaluation, promotions, recruitment and transfer	> -0.87	5
Factor 4 Hiring Process	Recruitment and training	> 28.77	6
Factor 5 Employee Transfer	Appraisal, evaluation, promotion and transfer	> 11.09	7

Table 40. HR factor analysis summary

4.10.3 HR Cluster Analysis

Since the Scree plot break occurs for the first three factors, cluster analysis can be performed for those three factors. This is done by first documenting the URL's chosen for factors 1, 2 and 3 in the cluster analysis input file.

Cluster analysis is then performed on the three factors. The graph shows the entire URL's associated to the three factors and merges the common URL's. The plot is shown in graph 15.



Graph 15. HR Fruchterman Reingold plot

From the plot it shows that all URL's are clustered for those three factors. This is done to show the strength of each factor and which grouped companies correspond to which factor for the HR business unit. In this case factor two is the strongest followed by factor one and then factor three.

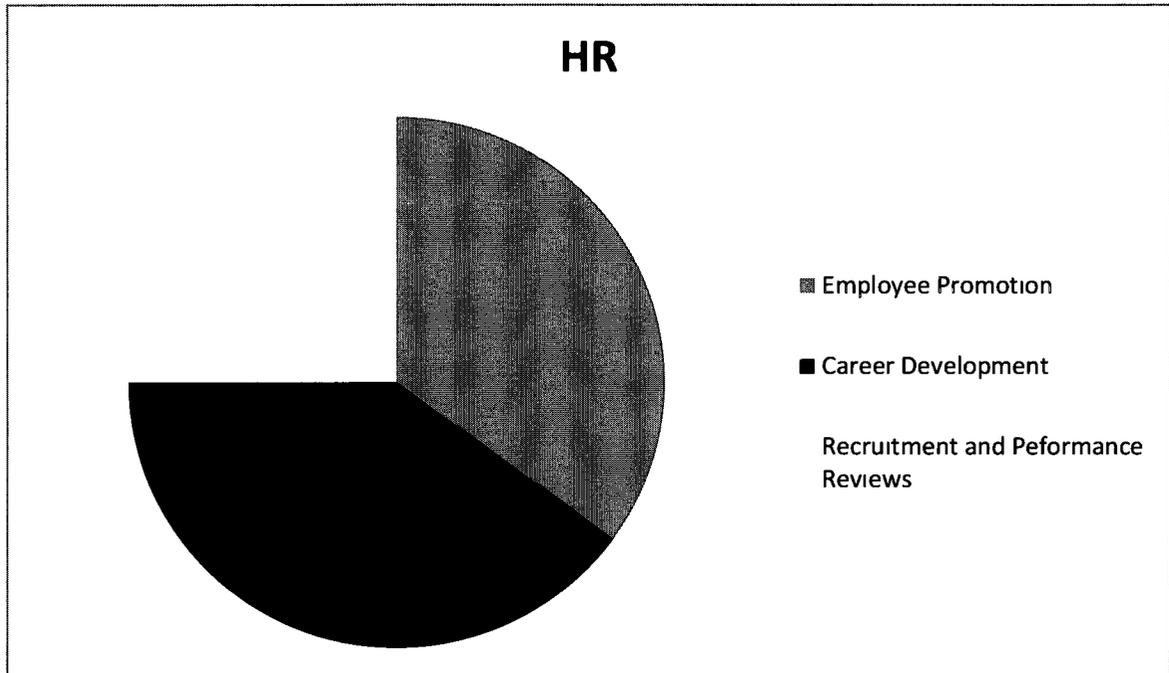
The summary of the results for the first three strong factors with keyword loadings of above 0.4 taken from table 26 is shown in table 41 followed by the summary of HR cluster analysis shown in table 27 and the HR pie chart that displays the percentages of the number of URL's per cluster in graph 16.

Factor 1 Employee Promotion	Loading
Promotions	0.902
Employee Benefits	0.799
<i>Cumulative Variance</i>	0.385
Factor 2 Career Development	Loading
Career Development	0.991
Evaluation	0.943
<i>Cumulative Variance</i>	0.539
Factor 3 Recruitment and Performance Reviews	Loading
Appraisal	0.87
Recruitment	0.706
<i>Cumulative Variance</i>	0.669

Table 41: Summary of HR factor analysis

	Providers of	Percentage of URL's within the cluster
Cluster 1	Employee Promotion	35%
Cluster 2	Career Development	40%
Cluster 3	Recruitment and Performance Reviews	25%

Table 42: Summary of HR cluster analysis



Graph 16: Cluster analysis HR pie chart

4.10.4 HR Factor Analysis Discussions

Table 43 summarizes the HR factor interpretation.

Factor	Name	Keywords	Interpretation
1	Employee Promotion	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Employee AND Benefits: With 0.799 Loading, this keyword can be interpreted as a service to manage employee benefits such as incentives</p> <p>The following keyword was used by this factor with loading over 0.4:</p> <p>Promotions: With 0.902 Loading, this keyword can be interpreted to facilitate employee promotions such as rewards</p> <p>Supported, Highly rated and Unpopular</p>	<p>Companies that are offering employee promotion software provide the following type of solution:</p> <p>Tools that facilitate aligning company objectives with incentive plans, rewards, recognition bonuses and contests. Quantifiable metrics are identified and tracked to ensure the identified company objectives are always being achieved or exceeded.</p> <p>Example: Employee Recognition from Perks</p> <p>Employee recognition, performance management and customer centric reward platform tools.</p> <p>Example: PerkPlus from Perks</p>
2	Career Development	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Career AND Development: With 0.958 Loading, this keyword can be interpreted as a service that develops the career skills and competencies planning tools.</p> <p>Evaluation: With 0.897 Loading, this keyword</p>	<p>Companies that are offering career development software provide the following type of solution:</p> <p>Managing assessment of behavioral competencies. Tracking progress against the career development plan for both employees and managers. Identifying the requirements needed for career advancement.</p> <p>Example: Online, On-Demand</p>

		<p>can be interpreted as a service that evaluates team performance and goals</p> <p>Low rated, Free, Supported and Integrated</p>	<p>Development from Fairsail</p> <p>Tracking milestones and manage objective data for all team members.</p> <p>Managing evaluations against goals and objectives for each team member.</p> <p>Example: Online, On-Demand Focus from Fairsail</p>
3	Recruitment and Performance Reviews	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Appraisal: With 0.87 Loading, this keyword can be interpreted to review the employee and team members' performance.</p> <p>Recruitment: With 0.706 Loading, this keyword can be interpreted as a service that facilitates the recruitment process</p> <p>Unpopular, Free, Integrated and Supported</p>	<p>Companies that are offering recruitment and performance reviews software provide the following type of solution:</p> <p>Creating employee appraisals reviews which meet company guidelines and team member expectations.</p> <p>Example: Performance Review and Appraisal from Fairsail</p> <p>Automating the management of resumes, applications, offer letters, nondisclosure agreements and other documents associated with the recruitment process. Specifying job requirements profiles. Defining the selection criteria and interview process.</p> <p>Example: ImageNow from Perspective Software</p>
4	Hiring Process	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Recruitment: With 0.595 Loading, this keyword can be interpreted as a service</p>	<p>Companies that are offering hiring process software provide the following type of solution:</p> <p>Automating applicant tracking systems. Integrating with social networking websites and job boards.</p>

		that facilitates the recruitment process Employee AND Training: With 0.958 Loading, this keyword can be interpreted as a service that helps in employee training Highly rated, Free, Integrated and Supported	Example: Recruiting from Target Recruit Facilitate the on-boarding process and employee training and orientation
5	Employee Transfer	The following keyword was used by this factor with loading over 0.4: Employee AND Transfer: With 0.894 Loading, this keyword can be interpreted to ensure the employee is transferred in a different position or relocated properly	Companies that are offering Employee Transfer software provide the following type of solution: Employee transfer is considered as a part of the recruiting process therefore there is no specific transfer SaaS tool

Table 43: HR Factor Interpretation

From table 36 the average weighted factor loadings correspond to how relevant that factor's URL's are to the function it provides. Thus they are ranked as follows:

1. Factor 4 "Hiring Process" software there are 6 products relevant to this functionality
2. Second factor 5 "Employee Transfer" software there are 7 products relevant to this functionality since most of the employee transfer SaaS tools are part of the hiring process tools that's why the products are high in relevance to the function they provide

3. Factor 1 “Employee Promotion” software there are 7 products relevant to this functionality
4. Fourth factor 3 “Recruitment and Performance Reviews” software there are 5 products not quite relevant to the functionality since performance reviews is a different function than actual recruitment
5. Factor 3 “Career Development” software does not have many relevant products.

4.10.5 HR Cluster Analysis Discussion

From the cluster analysis HR table 38 shows that each factor forms its own cluster. That is because each cluster provides a different functionality than the other and thus different SaaS applications. Examples of the top products for the first cluster according to keyword weight that provide employee promotions are:

1. **PerkPlus** from Perks
2. **Human Capital Management** from Fairsail

Examples of products for the second cluster according to keyword weight that provide career development services are:

1. **Online, On-Demand Development** from Fairsail
2. **Online, On-Demand Focus** from Fairsail

Examples of products for the third cluster according to keyword weight that provide recruitment and performance reviews services are:

1. **Recruiting** from Riptide
2. **ImageNow** from Perspective Software
3. **Recruiting** from Target Recruit

From the HR plot graph 15 it can be shown that most URL's are a part of factor 2 followed by factor 1 and 3. Factor 1 and 3 share a lot URL's such as Target Recruit, Perks and Fairsail since employee promotion, performance reviews and recruitment all tie in together.

4.10.6 HR Managerial Insights

- Most HR keywords go hand-in-hand and are related such as employee appraisal with evaluation; employee benefits with promotions and recruitment with employee training and transfer.
- The cluster percentages are almost the same since the HR products are equally divided into the three factors.
- Most HR SaaS products are low rated or unpopular that is because the HR SaaS solutions are very new and therefore the applications themselves are not that intuitive with lots of room for improvement.
- Fairsail is the only common SaaS vendor between the three clusters, employee promotions, career development, recruitment and performance reviews since it offers separate products for each function.

4.11 All business units Results

4.11.1 All business units Data Analysis

After completing all the business unit results separately, all business unit keywords and URL's are combined. Then factor and cluster analysis are performed. This is done to compare the results of all business units together versus each business unit separately. From the entire list of all the keywords combined table 44 shows the ones selected since many were dropped because they were duplicate keywords or had no keyword hits:

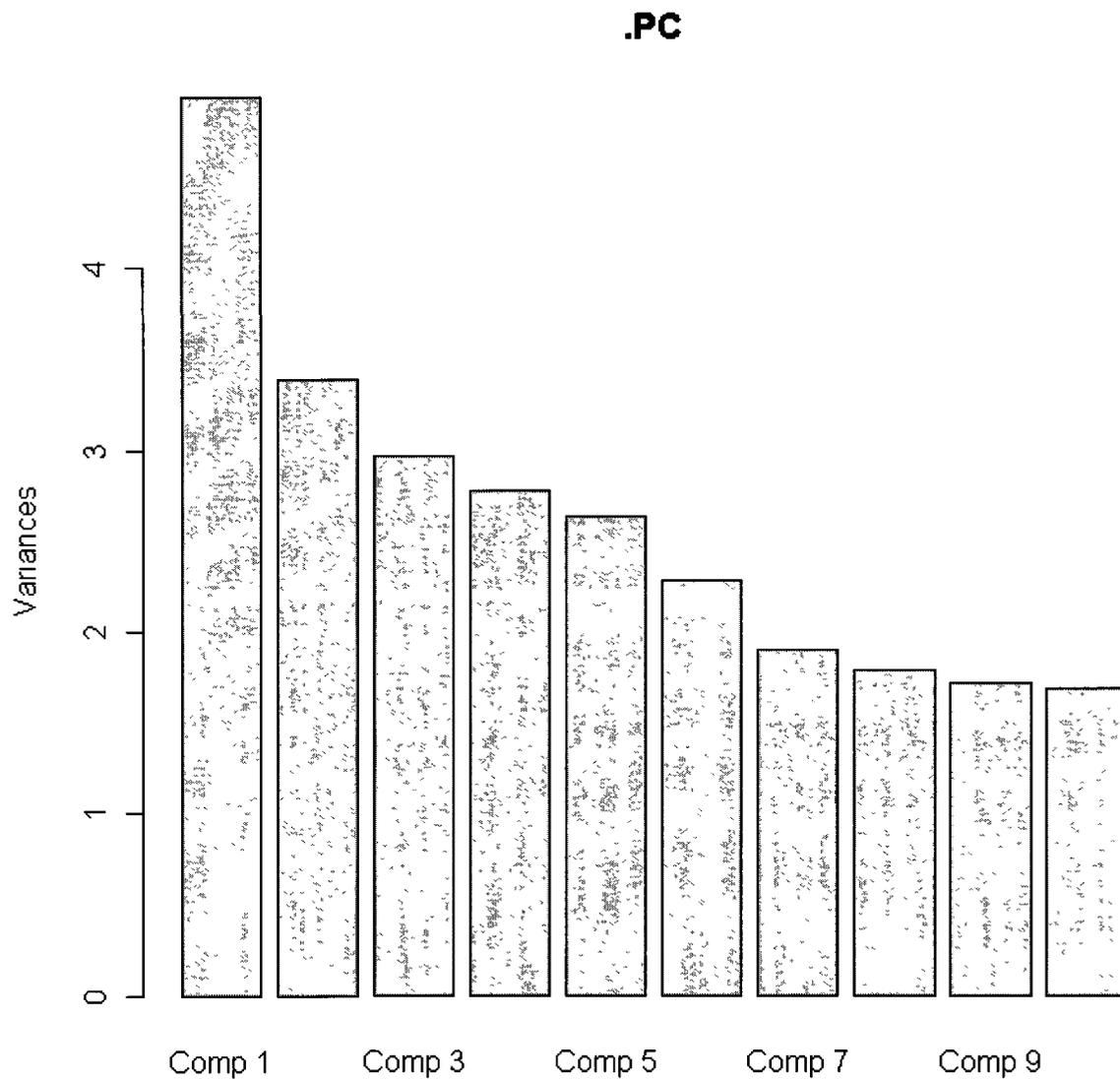
All Business Units							
Keywords selected	Advertising	Budgeting	Campaigns	Demand AND generation	Distribution	Internet AND marketing	Lead AND nurturing
	Lead AND scoring	Media	Managing AND leads	Market AND Segmentation	Promotion	PR	Publicity
	Search AND engine AND marketing	Social AND media AND marketing	Sponsorship	Sales AND pipeline	Telemarketing	Competition	Product AND management
	Backups	Conversion	Data AND entry	Data and migration	Data and mining	Data and replication	Statistical AND analysis
	Data AND storage	Virus AND tracking	Data AND warehousing	Audits	Bonds	Credit	Inventory
	Investment	Payroll	Shareholder				
Keywords dropped	Sales tracking	Sales territory	Sales forecasting	Sales contract	E-signature	Quote generation	Quote tracking
	Analyzing tasks	Analyzing events	Door-to-Door sales tracking	Business-to-Business sales tracking	Sales lead scoring	Funnel scorecard	Sales planning

	Sales process information	Keep track of customers	Sales reporting	Market research	Events organization	Cause marketing	Demand generation
	Referral marketing	Advertising techniques and tracking	Product definition	Product planning	Product promotion	Catalogue	Product documentation
	Gathering market requirements	Product lifecycle requirements	E-mail integration	Licensees	Project initiation	monitoring	Project completion
	Project risks	Administration	Termination	Flagging	Project design	Contract	Resources allocation
	Stakeholder analysis	Plan contracting	Source selection	Information distribution	Team development	Document sharing	Data validation
	Data transmission	Content tracker	Profanity tracker	Data tabulation	Equities	Travel	Vacation
	Working capital	Treasury	Invoice	Accounts payable	Billing and shipping	Cash flow	Financial reports
	Statutory holidays	Compensation	Tax administration	Cash holding	Contract setup	Public debt	Tax reports
	Recruitment	Training	Evaluation	Promotions	Transfer	Record keeping	Career development
	Appraisal	Employee benefits	Competency mapping				

Table 44: All Business Units keywords

After inputting the 53 keywords and 240 URL's onto the keyword search tool, the plot is shown in graph 17.

Here is the Scree plot:



Graph 17 All business units Scree plot

From the plot we can see there are up to 14 factors we can use that have an Eigenvalue higher than 1.0. However, the Scree plot break happens after six factors. This means that six strong factors resulted from PCA.

4.11.2 All Business units Factor Analysis

Table 45 shows the data validation test results before going into factor analysis

Metric	Limit	Result
Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy	> 0.5	0.982
Bartlett's test of significance	<0.05	2.2e-16
Cumulative variance	> 0.3	0.377

Table 45: All business units' data validation

Table 46 shows the factor loadings for the 14 factors resulting from the factor analysis:

Keywords	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	F13	F14
Advertising			-0.122		0.241		0.143				0.176	0.127		
Audits				0.457										
Automation			0.165											
Backups								0.35		0.906	0.194			
Bonds				0.246										
Budgeting			-0.103		0.204		-0.107					0.119		
Call Center						0.972					0.178			
Campaign	0.627		-	-		-0.117	0.187	-	-0.114	-0.126	0.492	0.284		

s			0 265	0 179				0 127					
Community			0 588								0 219		
Competition	-0 114		- 0 194	- 0 134				- 0 102			0 297	-0 883	
Contract Management			0 227										
Conversion								0 317		0 474	0 101		
Credit				0 969							0 223		
Customer Service			0 308		0 363						0 117		
Data Entry								0 873			0 146		
Data migration								0 923		0 196	0 155		
Deliverables		0 851									0 134		0 496
Demand Generation	0 933						0 119				0 155		
Distribution			- 0 215	- 0 133			-0 102				0 249	0 261	
Equipment		0 467									0 152		
Helpdesk						0 428							
Internet Marketing	0 227				0 223		-0 106				0 123		0 171
Inventory				0 398									
Investment				0 267									
IT			0 739	-0 1		0 381					0 263		
Knowledge Base			0 553								0 209		
Lead Nurturing	0 894						0 148				0 216		
Lead Scoring	0 908						0 125				0 25		0 214
Managing Leads	0 245										0 142		0 947
Market Segmentation			- 0 142		0 135		-0 122				0 255	0 187	

Media					0 322		0 871				0 16		
Data Mining													
Outsourcing						0 648							
Payroll				0 112									
PR	0 113				0 357		0 773				0 133		
Product Management			- 0 135								0 21	-0 62	
Project Execution		0 98									0 102		0 143
Project Planning		0 542											
Promotion			- 0 916	- 0 122							0 274	0 25	
Publicity													0 616
Data Replication							0 167						
Reporting			0 569			0 324					0 258		
Sales Pipeline											-0 112		
Search Engine Marketing					0 972		0 16				0 131		
Shareholder				0 191									
SLA			0 234										
Social Media Marketing					0 807		0 355						
Sponsorship							0 386						
Statistical Analysis								0 167		0 219			
Data Storage								0 901	0 283	0 193	0 217		
Telemarketing											-0 152		
Ticket Management			0 284										
Virus								0 785			0 14		

Tracking														
Data Warehousing										0.599				
Cumulative Variance	0.045	0.077	0.108	0.139	0.168	0.196	0.224	0.25	0.276	0.299	0.321	0.342	0.362	0.377

Table 46. All business units factor loadings

After calculating the weighted factors and their averages the URL's above the average weighted factors are documented in 14 different spreadsheets. Appendix 7 shows the URL's for each factor for all business unit names. Table 47 shows the summary of the factor analysis results.

	Factor Name	Average weighted factor loadings	Number of URL's
Factor 1 Marketing Automation	Campaigns, demand generation, Internet marketing, lead nurturing, lead scoring, managing leads and PR	> 18.39	26
Factor 2 Project Management	Deliverables, Equipment, Project planning and execution	> 0.094	5
Factor 3 Support Operations	Supported IT, automation, conversion, customer service, reporting, ticket, SLA, community, knowledge	> 15.89	36

	base,		
Factor 4 Finance Operations	Audits, bonds, credit, investment, inventory, payroll and SLA	> 0.33	36
Factor 5 Permission Marketing	Internet marketing, search engine marketing, social media marketing, market segmentation, PR, media and budgeting	> 1.52	20
Factor 6 Call Center Operations	Customer service, call center, Helpdesk, reporting, IT outsourcing	> 7.66	36
Factor 7 Marketing Media Operations	Advertising, media, PR, sponsorship, campaigns, social media marketing, search engine marketing, demand generation, lead nurturing and scoring	> 20.53	100
Factor 8 IT Operations	Backups, replication, storage, virus checking, storage and statistical analysis	> -0.38	183
Factor 9 Business Services	Storage, data integration and migration	> -0.3	200

Factor 10 Data Management	Backups, conversion, statistical analysis and data mining, storage, and warehousing	> -0.45	201
Factor 11 Departmental Integration	Advertising, campaigns, demand generation, internet marketing, promotions, managing lead nurturing and scoring, market segmentation, media , search engine marketing, competition, distribution, call center, community, customer service, reporting, deliverables, equipment, project planning and execution, product management, backups, conversion, data entry, IT, storage, virus, credit and promotion	> -0.02	65
Factor 12 Marketing Campaigning	Advertising, campaigns, budgeting, market segmentation, distribution, promotion	> 1.63	48
Factor 13 Lead Management	Internet marketing, publicity, managing and scoring leads	> 0.6	16

Factor 14 Project Execution	Project execution, deliverables	> 0.02	4
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Table 47. All business units factor analysis summary

4.11.3 All business units' Cluster Analysis

Since the Scree plot break occurs for the first six factors, cluster analysis can be performed for those six factors. This is done by first documenting the URL's chosen for factors 1, 2, 3, 4, 5 and 6 in the cluster analysis input file.

The Tkplot Fruchterman Reigold plot shows a detailed view of the entire URL's associated to the six factors and merges the common URL's. The plot is shown in graph 18.

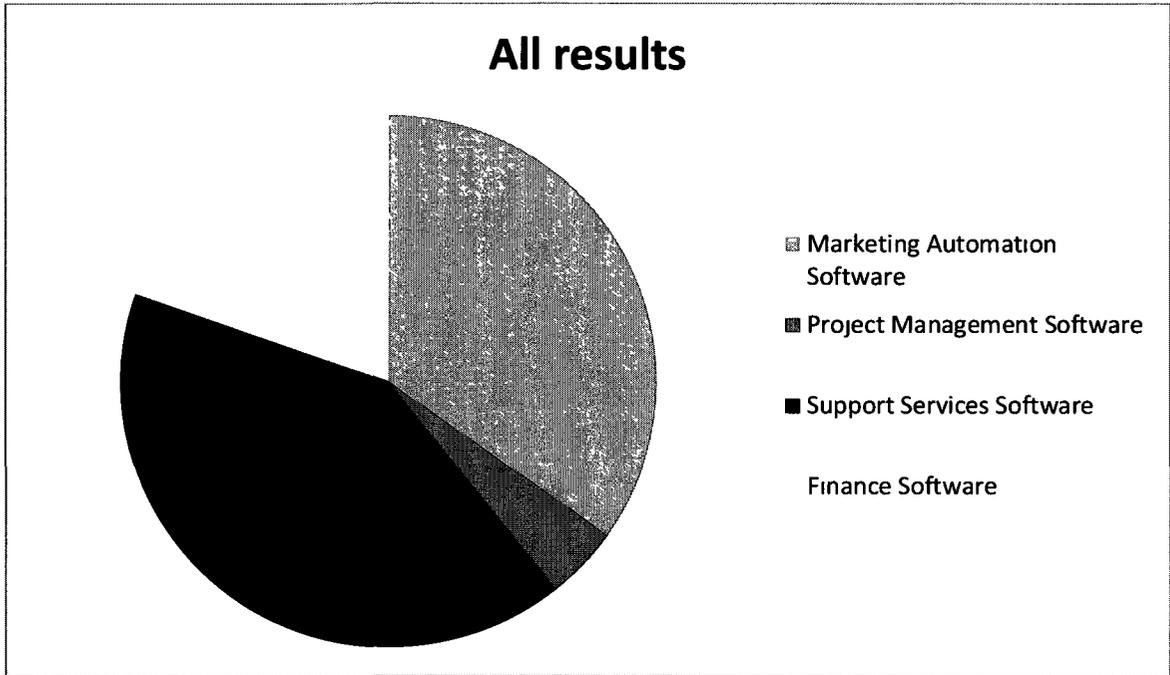
Factor 1 Marketing Automation	Loading
Demand Generation	0.933
Lead Scoring	0.908
Lead Nurturing	0.894
Campaigns	0.627
<i>Cumulative Variance</i>	0.045
Factor 2 Project Management	Loading
Project Execution	0.98
Deliverables	0.851
Project Planning	0.542
Equipment	0.467
<i>Cumulative Variance</i>	0.077
Factor 3 Administration Support Operations	Loading
IT	0.739
Community	0.588
Reporting	0.569
Knowledge Base	0.553
<i>Cumulative Variance</i>	0.108
Factor 4 Finance Operations	
Credit	0.969
Audits	0.457
<i>Cumulative Variance</i>	0.139

Factor 5 Permission Marketing	
Search Engine Marketing	0.972
Social Media Marketing	0.807
<i>Cumulative Variance</i>	0.168
Factor 6 Call Center Operations	
Call Center	0.972
Outsourcing	0.648
Helpdesk	0.428
<i>Cumulative Variance</i>	0.196

Table 48 Summary of all business units' factor analysis

	Providers of	Percentage of URL's within the cluster
Cluster 1	Marketing Automation Software	34.82%
Cluster 2	Project Management Software	4.46%
Cluster 3	Support Services Software	41.07%
Cluster 4	Finance Software	19.64%

Table 49 Summary of all business units' cluster analysis



Graph 19 Cluster analysis of all business units' pie chart

4.11.4 All Business Units Analysis Discussions

Table 50 summarizes all business units factor interpretation.

Factor	Name	Keywords	Interpretation
1	Marketing Automation	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Campaigns: With 0.627 Loading, this keyword can be interpreted as a service for the marketing department to create campaigns</p> <p>The following keyword was used by this factor with loading over 0.4:</p> <p>Demand AND Generation: With 0.933</p>	<p>Companies that are offering marketing automation software provide the following type of solution:</p> <ul style="list-style-type: none"> • E-mail campaigns • Stay in touch campaigns for all prospects that are not immediately ready to engage with sales • Develop automated nurturing campaigns • Maximizing lead generation by developing lead lifecycles • Campaigns that ensures

		<p>Loading, this keyword can be interpreted as a service that drives awareness and interest in a company's product or services</p> <p>The following keyword was used by this factor with loading over 0.4:</p> <p>Lead AND Nurturing: With 0.894 Loading, this keyword can be interpreted to ensure leads are properly nurtured and maintained</p> <p>The following keyword was used by this factor with loading over 0.4:</p> <p>Lead AND Scoring: With 0.908 Loading, this keyword can be interpreted to ensure leads are properly scored and ranked</p> <p>Popular, Highly Rated, Integrated and Supported</p>	<p>leads will never grow stagnant or lost</p> <p>Example: Campaign Management from Eloqua</p> <p>Demand generation tools such as campaign management, lead management, marketing analysis, and data management.</p> <p>Example: Demand Generation from Marketo</p> <ul style="list-style-type: none"> • Lead nurturing which include Building relationships with qualified prospects that are not yet ready to speak with sales • Trigger targeted messages to prospects based on specific behaviors or profile updates • Automate multi-step marketing programs that build relationships with qualified prospects over time. <p>Example: Lead Nurturing from Marketo</p> <p>Lead scoring which include:</p> <ul style="list-style-type: none"> • Automatically qualifying leads and measuring their interest and engagement • Track online activity to measure buying interest and sales-readiness • Decrease scores over time based on inactivity. <p>Example: Lead Scoring from</p>
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			Marketo
2	Project Management	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Deliverables: With 0.851 Loading, this keyword can be interpreted as a service that helps in executing project deliverables</p> <p>Equipment AND Allocation: With 0.467 Loading, this keyword can be interpreted as a service that allocates the right resources such as equipment to the most appropriate project</p> <p>Project Planning: With 0.542 Loading, this keyword can be interpreted as a service that facilitates in project planning</p> <p>Project Execution: With 0.98 Loading, this keyword can be interpreted as a service that facilitates in project execution</p> <p>Supported and Highly Rated</p>	<p>Companies that are offering project management software provide the following type of solution:</p> <p>Processes logical project management deliverables. Provides executives, managers and project team members with the necessary tools and processes to plan and execute their deliverables in a manner that makes most sense to maximize their resources and get the right work done.</p> <p>Example: Fulfillment Manager from @task</p> <p>Quickly finds which software equipment such as laptops, servers and PDA's are available to be assigned to a task and a team member and evaluate substitutions to optimize the organization's utilization.</p> <p>Example: Resource Management from @task</p> <p>Defining objectives, tasks, metrics, time, budget and resources to complete the project. Create and automate project workspaces and plans to facilitate project execution</p> <p>Example: Project Management Module from Projector</p> <p>Executing projects including project status updates; tracking and solving on-going issues; completing tasks and showing the estimated and completed budget and resources</p>

			Example: DreamTeam Project Management from Dreamfactory
3	Administration Support Operations	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Community: With 0.588 Loading, this keyword can be interpreted as a service that provides an interactive social software for all support cases and users</p> <p>IT: With 0.739 Loading, this keyword can be interpreted as a service that helps IT with maintaining the administration of support operations</p> <p>Knowledge AND Base: With 0.553 Loading, this keyword can be interpreted to manage the knowledge base</p> <p>Reporting: With 0.569 Loading, this keyword can be interpreted to ensure reporting on support metrics is done properly</p> <p>Supported and Highly rated</p>	<p>Companies that are offering administration support operations software provide the following type of solution:</p> <p>Developing enterprise communication and collaboration software.</p> <p>Connecting customers across disjointed channels to reduce support costs.</p> <p>Example: Supportal from Jive Software</p> <p>Providing easily customizable widgets, reports, fields and page layouts; security privileges setup; automation workflows and E-mail automation and integration</p> <p>Creates a knowledge base according to all the cases created and their responses, answers and solutions.</p> <p>Automate the knowledge base so that when a case is created the knowledge base tool would identify the question and provide suggested answers right away without the need of an agent. Shortcuts can be created to answer commonly asked questions. Agents can search the knowledge base by key words and find shortcuts to quickly answer email and web chat interactions.</p> <p>Example: IntelliResponse from ATG</p> <p>Creating reports and dashboards</p>

			<p>for support analytics including virtualization, interactive and ad-hoc reports. Scheduled reports. Report design. Business logic embedding including formulas and workflows. Support metrics include initial response time, case origin, severity, case reason, date cases opened and closed and status of case.</p> <p>Example: Style Intelligence - Reporting & Dashboard App from InetSoftware</p>
4	Finance Operations	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Audits: With 0.457 Loading, this keyword can be interpreted to ensure audits running properly</p> <p>Credit: With 0.969 Loading, this keyword can be interpreted to manage credit</p> <p>Supported and Integrated</p>	<p>Companies that are offering finance operations software provide the following type of solution:</p> <p>Full audit history and compliance tracking. Gives pricing and billing processes the transparency needed to prepare for a possible sale or public offering.</p> <p>Example: Z-Billing 2.0 from Zuora</p> <p>Process and verify credit card payments. Manage payment orders, invoices and quotes. Manage and obtain transaction details.</p> <p>Example: Managed Payment 2.0 from eWay</p>
5	Permission Marketing	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Search AND Engine AND Marketing: With 0.972 Loading, this keyword can be interpreted to promote</p>	<p>Companies that are offering permission marketing software provide the following type of solution:</p> <p>Creating search engine marketing campaigns; creating associated site landing page content that are integrated with</p>

		<p>websites by increasing their visibility in search engine result pages</p> <p>Social AND Media AND Marketing: With 0.807 Loading, this keyword can be interpreted to allow people to build social and business connections, share information and collaborate on projects online</p> <p>Supported</p>	<p>other media; and Making sure to deliver site visitors to precisely what they are searching for.</p> <p>Example: PageVester - Landing Pages Creation from Acquisio</p> <p>Turn social media data into value by using reports, dashboards and lead automation capabilities from sources such as FaceBook, LinkedIn, blogs and Twitter.</p> <p>Example: SEO for Salesforce from DemandResults</p>
6	Call Center Operations	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Call AND Center: With 0.972 Loading, this keyword can be interpreted as a service to facilitate the management of call centers</p> <p>The following keyword was used by this factor with loading over 0.4:</p> <p>Outsourcing: With 0.648 Loading, this keyword can be interpreted to facilitate outsourcing operations and solutions</p> <p>Helpdesk: With 0.428 Loading, this keyword can be interpreted to provide helpdesk solutions for not just support but also HR and</p>	<p>Companies that are offering call center operations software provide the following type of solution:</p> <p>Real-time flow of interactions between CRM applications and call center solutions. This includes agent-desktop and routing of interactions. Facilitate real-time information flow via interactive voice response systems, E-mail servers and web chat applications. E-mail management systems that facilitate e-mail routing, e-mail content analysis and response management. Ensure that the right customer reaches the right agent at the right time.</p> <p>Outsourcing operations such as staffing solutions, CRM engagements, professional services and customer self-services</p> <p>Example: AMC Multi-Channel</p>

		<p>IT</p> <p>Supported and Integrated</p>	<p>Integration Server from AMC Technology</p> <p>Setting customers to the right agents right away. Manage phone, E-mail and chat channels all in one application. Track all customer interactions.</p> <p>Example: OnDemand Contact Center from Contactual</p>
7	Integrated Marketing Communications	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Media: With 0.871 Loading, this keyword can be interpreted to take advantage of the media for marketing purposes</p> <p>Public AND Relations: With 0.773 Loading, this keyword can be interpreted to maintain the public image of the business</p> <p>Popular and Highly rated</p>	<p>Companies that are offering integrated marketing communications software provide the following type of solution:</p> <p>Creating media products, applications and campaigns. Track social media conversations and web traffic</p> <p>Example: gURL from Genius</p> <p>Protect the organization's image and ensure compliance across all channels to prevent PR issues</p> <p>Example: Gryphon from PrivacyAdvisor</p>
8	IT Operations	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Data AND Entry: With 0.873 Loading, this keyword can be interpreted to manage and automate data entry</p> <p>Data AND Migration: With 0.923 Loading, this keyword can be interpreted to manage data migration from one</p>	<p>Companies that are offering IT operations software provide the following type of solution:</p> <p>Automating and facilitating data entry into the CRM system as easily as possible using various SaaS tools</p> <p>Example: Mass Effect from DemandTools</p> <p>Gathering all data including fields and the different relationships and configurations between all</p>

		<p>system to another</p> <p>Data AND Storage: With 0.901 Loading, this keyword can be interpreted to ensure data storage is done properly</p> <p>Virus AND Tracking: With 0.785 Loading, this keyword can be interpreted to protect users from viruses</p> <p>Integrated and Supported</p>	<p>objects and migrating that into another system and making sure all data is valid and clean (duplicate free)</p> <p>Example: Mass Impact from DemandTools</p> <p>Organize internal data and make it available to the organization workforce globally. This includes managing accessing sensitive data, stored procedures and data content</p> <p>Example: Aspira XObject from AspiraTech</p> <p>Virus tracking and detecting. Spyware and Anti-Virus software. Also, file integrity monitoring and network device and database audits</p> <p>Example: PCI Pro from Solidcore</p>
9	Business Services	No factor loadings over 0.4	
10	Data Management	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Data AND Backups: With 0.906 Loading, this keyword can be interpreted to ensure data is backed up properly</p> <p>Data AND Conversion: With 0.474 Loading, this keyword can be interpreted to ensure data is converted properly to be supported</p>	<p>Companies that are offering data management software provide the following type of solution:</p> <p>Automated and scheduled data backups that can be accessed at any time and migrated to any system</p> <p>Example: Mass Backup from Crmfusion</p> <p>Executing processes of going through intermediary stages for data conversion, or facilitating the "exporting" and "importing" procedures, recognizing various</p>

		<p>by all systems</p> <p>Data AND Warehousing: With 0.599 Loading, this keyword can be interpreted to manage the various stages in data warehousing</p> <p>Integrated and Free</p>	<p>data file formats at the data input stage and then storing the output data in a number of different formats.</p> <p>Example: IT Operations from Conformity</p> <p>Help in various data functionality such as cleaning, retrieving, extracting transforming, cataloging and loading data and managing the data dictionary.</p> <p>Example: Visual Business Intelligence from ZoomInfo</p>
11	Departmental Integration	<p>Involves all business units keywords and functionality integrated together</p> <p>Low Rated</p>	<p>There are various SaaS tools that provide solutions for all business units</p>
12	Marketing Campaigns	<p>No factor loadings over 0.4</p>	
13	Lead Management	<p>The following keyword was used by this factor with loading over 0.4:</p> <p>Managing AND Leads: With 0.947 Loading, this keyword can be interpreted to facilitate a business connection its outgoing consumer advertising and the responses to that advertising</p> <p>Publicity: With 0.616 Loading, this keyword can be interpreted to facilitate the promotion of the business</p> <p>Supported and</p>	<p>Companies that are offering lead management software provide the following type of solution:</p> <p>Capturing and managing leads. Data planning, lead planning, lead qualification, lead routing, lead nurturing and metrics.</p> <p>Example: CRM Accelerator Workflow from Sales Fusion</p> <p>In order to gain publicity, promotions and lead generation need to be part of the solution provided.</p> <p>Example: BoldChat Pro from BoldChat</p>

		Integrated	
14	Project Execution	No factor loadings over 0.4	

Table 50. All Business Units Factor Interpretation

From table 42 the average weighted factor loadings correspond to how relevant that factor's URL's are to the function it provides. Thus they are ranked as follows:

1. Factor 7 "Integarted Marketing Communications" software there are 100 products relevant to this functionality
2. Factor 1 "Marketing Automation" software there are 26 products relevant to this functionality
3. Factor 3 "Administration Support Operations" software there are 36 products relevant to this functionality
4. Factor 6 "Call Center Operations" software there are 36 products relevant to this functionality
5. Factor 12 "Marketing Campaigns" software there are 48 products relevant to this functionality
6. Factor 5 "Permission Marketing" software there are 20 products relevant to this functionality
7. Factor 13 "Marketing Publicity" software there are 16 products relevant to this functionality
8. Factor 4 "Finance Operations" software there are 36 products relevant to this functionality

9. Factor 2 “Project Management” software there are 5 products relevant to this functionality
10. Factor 14 “Project Execution” software there are 4 products relevant to this functionality
11. Factors 11 “Departmental Integration”, factor 9 “Business Services”, factor 8 “IT Operations and factor 10 “Data Management” software do not have many relevant products.

4.11.5 All Business Units Cluster Analysis Discussion

From the cluster analysis all business units’ results table 44 shows that marketing automation and permission marketing can be combined into one cluster since SaaS tools offer same products for both functionalities. Permission marketing is the initial phase of marketing automation. Therefore it is safe to say the marketing automation software forms the first cluster. The second cluster is project management software since it provides a different functionality than the other factors specifically for project management purposes. The third cluster combines both administration support operations and call center operations into one cluster since SaaS tools offer same products for both functionalities. Call center operations functions need to always be administrated by administration support operations functions. Therefore it is safe to say the support services software forms the third cluster. Finally, the fourth cluster is finance software since it provides a different functionality than the other factors. Examples of the top

products for the first cluster according to keyword weight that provide marketing automation software services are:

1. **Marketing Automation, Lead Management and Email Marketing** from Marketo
2. **Marketing Automation, Demand Generation, Email Marketing Solution** from Genius Inc.
3. **Eloqua Express** from Eloqua
4. **SEO for SalesForce** from DemandResults

Examples of products for the second cluster according to keyword weight that provide project management software services are:

1. **DreamTeam Project Management** from Dreamfactory
2. **Fulfillment Manager** from @task
3. **Projector Professional Services Automation** from Projector
4. **Resource Management** from @task

Examples of products for the third cluster according to keyword weight that provide support software services are:

1. **Supportal** from Jive Software
2. **AMC Multi-Channel Integration Server** from AMC Technology
3. **Style Intelligence - Reporting & Dashboard App** from InetSoftware
4. **OnDemand Call Center Platform** from LiveOps

Examples of products for the fourth cluster according to keyword weight that provide finance operations services are:

1. **Z-Billing 2.0** from Zuora
2. **Managed Payment 2.0** from eWay
3. **Intacct Financial Management** from InetSoftware
4. **Expensify** from Expensify

From the all business units plot graph 18 it can be shown that most URL's are a part of cluster (factors 3 and 6) followed by cluster 1 (factors 1 and 5) followed by cluster 4 and finally a few URL's are part of cluster 2. There are no shared URL's between any of the clusters since they all provide different solutions. This is also demonstrated on the cluster pie chart graph 35. The reason for that is most of the Force.com SaaS tools provide solutions for marketing and support departments. While Finance operations are usually handled in-house or through separate financial tools not integrated with Salesforce. Finally there are not many Force.com SaaS tools out there for project management yet but it is growing in the future.

4.11.6 All Business Units Managerial Insights

- Marketing automation factor 1 for the marketing result analysis has the same exact keywords, SaaS solutions and non-functional criteria (popular, highly rated, supported and integrated) as factor 1 “Marketing Automation” for all business units. Also, permission marketing factor 4 for marketing has the same exact keywords and SaaS solutions as factor 5 “Permission Marketing” for all business

units. Also, lead management factor 5 in marketing has the same exact keywords and SaaS solutions as factor 13 “Lead Management” for all business units. This shows how strong the analysis for the marketing business unit separately is.

- The administration support services factor does not have specific SaaS products that support the IT functionality. Since IT functionality is general and it is part of IT’s job to install and maintain the SaaS tools. However, the ease of use, configuration and administration of SaaS tools is what’s beneficial for IT.
- The difference between the administration support operations factor discussed in this section and the support services operations discussed in the Support and Maintenance section is that administration support deals more with IT and admin functionalities such as customizing fields widgets, reports, fields; security privileges setup; maintaining the knowledge base and E-mail automation and integration. While as support services concentrates on case management and SLA’s.
- Factor 9 “Business Services” does not have any strong keyword loadings since it is already part of IT operations and is a business unit that manages all the SaaS tools for all other business units.
- Factor 11 “Marketing Campaigns” does not have any strong keywords loadings since it is already part of marketing automation and lead management.
- Factor 14 “Project Execution” does not have any strong keyword loadings since it is already part of project management services.
- For factor 10 “Data Management” there aren’t many data warehousing products out there. Simply because business intelligence software is separate and

competing with SalesForce example Microsoft CRM, Onyx, IBM and Crystal reports. That is why most data management SaaS tools integrated with SalesForce is free.

- Factor 11 “Departmental Integration” combines all departmental functions. This shows what SaaS products can be integrated with others in different business units.
- Marketing, Support and Project management SaaS service providers are highly rated and popular.
- The departmental integration factor is low rated since it is very difficult to have one SaaS product that offers all departmental solutions and if it did it won’t be powerful as it won’t focus on one function fully.
- Clusters are formed according to the different business units. There are no URL’s shared between any cluster.
- Marketing and Support business units have the most URL’s.
- There is no HR factor since there are a very few number of products and keywords provided.

The reason all business units were analyzed together after analyzing each business unit separately, was due to the inaccuracy and inadequacy of the results of a few business units.

This included sales which only had a maximum of one keyword loading greater than 0.4 per factor for all sales factors. Also the Scree plot gave inaccurate results, showing four strong factors while the third factor did not have any factor loadings greater than 0.4. Sales provided a small number of products for each factor and only

one cluster was formed. Product management's number of keyword loadings greater than 0.4 were insufficient and also provided a small number of products for each factor if any. Thus there was not enough information to discuss the results completely. Project management did not provide any results due to the very low number of products (URL's) available. IT and finance had a KMO less than 0.5 therefore results would not have been accurate. Finally, HR only problem was that it provided a small number of products for factor. However, the number of keyword loadings greater than 0.4 per factor was sufficient and different clusters were formed that had evenly distributed percentages.

Both the marketing and the support and maintenance business units' results were sufficient. Since both business units had an adequate number of keywords greater than 0.4 and a large number of products per factor. They also formed different clusters with distributed percentages.

CONCLUSION, LIMITATIONS AND FUTURE WORK

This chapter is divided into three sections. Section 6.1 covers the conclusions of this thesis. Section 6.2 presents the thesis future research opportunities and Section 6.3 concludes with the limitations and challenges of this research.

6.1 Conclusion

In conclusion the thesis contributed to Saving time for SaaS consumers to research and observe existing features by researching all Force.com AppExchange SaaS vendors categorized by functionality and then performing factor analysis between the functional keywords and SaaS URL's. The results helped in making sense of the SaaS concept to the parties involved. The clusters outcomes were as follows ranked by popularity (number of URL's):

1. Support services software
2. Marketing automation software
3. Finance software
4. Project management software

The reason support services and marketing automation software are high in popularity is that SaaS vendors have been offering those kind of solutions for some time now. While as finance and project management software solutions are fairly new Force.com SaaS solutions and thus they are solutions that need more future work and research.

6.2 Future Research Opportunities

The following are the future research opportunities:

1. Research future Force.com SaaS opportunities for business units that have not been exploited yet such as research and development, quality assurance, legal and test.
2. Perform a study on how to improve current SaaS vendor's solutions for business units that are not popular and are still in the initial phase of SaaS implementation such as product management, project management, HR and finance.
3. Develop case studies of the companies in each cluster to verify that firm's market offerings are accurately presented.
4. Compare Force.com vendors with other CRM SaaS vendors such as Oracle and Microsoft CRM.

6.3 Limitations

The following limitation was encountered as a result of performing this study:

- The interpretation of factors, developing definitions and names for factors and clusters are subjective and can be influenced by the researcher's prior knowledge and literature review.

REFERENCES

Allen, S. (2009). An Empirical Study of components of value co-creation. Masters Thesis, Technology Innovation Management, Carleton University, Ottawa, Ontario.

Blokdjik, G. (2008). Saas 100 Success Secrets - How Companies Successfully Buy, Manage, Host and Deliver Software as a Service (Saas), Lulu.com. ISBN # 0980471648, 9780980471649

Banks, C. (2004). Who's Sale Is It, Anyway. Ward's Dealer Business. 38(10): 24-28.

Biddick, M. (2010). Why You Need A SaaS Strategy. Information week. Available at: <http://www.informationweek.com/news/services/saas/showArticle.jhtml?articleID=222301002>. (accessed on 20/Sep/2010)

Cespedes, F. (1995). Concurrent Marketing: Integrating Product, Sales, and Service. Boston: Harvard Business School Press.

Chen, G. (2010). Potential Security Issues with SaaS. Communicate Better. Available at: <http://webhostinggeeks.com/blog/2010/05/09/potential-security-issues-with-saas>. (accessed on Aug/12/2010)

Christensen, M.C., & Carlile, R. (2005). The cycles of theory building in management research. Research Paper. Version 6.0.

Chong, F., & Carrao, G. (2006). Architecture Strategies for Catching the Long Tail. MSDN Architecture Center. Available at: <http://msdn.microsoft.com/en-us/library/aa479069.aspx>. (accessed October 19, 2009).

Clow, K., & Black, D. (2007). Integrated Advertising, Promotion, and Marketing Communications. Third Edition. Pearson Education. ISBN # 0131866222.

Colquitt, J., & Phelan, C. (2007), "Trends in theory building and theory testing: a five decade study of the academy of management journal", *Academy of Management Journal* 50(6): 1281–1303.

Costello, A., & Osborne, J. (2005). Best Practices in Exploratory Factor Analysis: Four Recommendations for Getting the Most from Your Analysis. *Practical Assessment Research & Evaluation*, 10(7):1-9.

Darlington, R. (2007). Factor Analysis. Available at : <http://www.psych.cornell.edu/Darlington/factor.htm> (accessed on Sep/10/2010).

DeCoster, J. (1998). Overview of Factor Analysis. Available at: <http://www.stat-help.com/index.html>. (accessed on Sep/10/2010).

Devon, J., & Bharadwaj, S. (2008). "Digitization of selling activity and sales force performance: An empirical investigation", *Journal of the Academy of Marketing Science*, 3-18.

Dubey, A., & Wagle, D. (2007). *Delivering software as a service*. The McKinsey Quarterly.

Field, A. (2005). *Discovering Statistics Using SPSS*. Second edition. London: Sage Publications.

Finch, C. (2005). *The Benefits Of The Software-as-a-Service Model*. Available at: http://www.appware.com/best_practices/PDF/SAAS_02_ARTICLE.PDF. (accessed on Sep/28/2010).

Force.com. (2010). *AppExchange*. Available at: <http://sites.force.com/appexchange/home> (accessed on 7/Jun/2009)

Force.com. (2010). *Benefits of SaaS*. Available at: <http://www.salesforce.com/saas>. (accessed on 20/Aug/2010)

Force.com. (2010). What is SaaS. Available at: <http://www.salesforce.com/saas>.

(accessed on 20/Aug/2010)

Fox, J. (2006). Getting Started With the R Commander. Available

at:<http://socserv.mcmaster.ca/jfox/Misc/Rcmdr/> (accessed on Feb/02/2010).

Friedman, J. (2000). *Dictionary of Business Terms*. New York: Hauppauge; 2000.

Glaser, B. G. (1992). *Basics of grounded theory analysis*. Mill Valley, CA: Sociology Press.

Guptill, B., McNee, B., & Cassell, J. (2006). *SaaS 2.0: Software-as-a-Service as Next-Gen Business Platform*. Saugatuck Technology. Available at

<http://www.saugatech.com/239order.htm>. (accessed October 19, 2009)

Hicks, D., Libaers, D., Porter, L., & Schoeneck, D. (2006). Identification of the Technology Commercialization Strategies of High-tech Small Firms. *Small Business Research Summary*. Available at: <http://www.sba.gov/advo/research/rs289tot.pdf> (accessed on Jul/25/2010).

Honeycutt, E., Ford, B., & Simintiras, A.(2003) *Sales Management : A Global Perspective*. New York: Routledge.

Iyer, B. & Henderson, J.C. (2010). "Preparing for the Future: Understanding the Seven Capabilities of Cloud Computing," *MIS Quarterly Executive* (9)2: 1-6.

Jaatun, M. (2009). *Cloud Computing: First International Conference, CloudCom 2009, Beijing, China, December 1-4, 2009, Proceedings*. Springer. ISBN # 3642106641, 9783642106644.

Jdue, A.A. (2009). *Level One Industrial Automation: Choosing Network control Systems*. Masters Thesis, Technology Innovation Management, Carleton University, Ottawa, Ontario.

Jolliffe, I., & Trenadfilov, N. (2004). *Computational Statistics & Data Analysis*. 50(1): 242-253.

Kressel, H., & Lento, T. (2007). *Competing for the future: how digital innovations are changing the world*. Cambridge University Press. ISBN # 0521862906, 9780521862905.

Lombardi, A.J.S. (2008). *Interactions between Eclipse Foundation Members and Eclipse Projects*. Masters Thesis, Technology Innovation Management, Carleton University, Ottawa, Ontario.

MacQueen, J. B. (1967). Some Methods for classification and Analysis of Multivariate Observations, Proceedings of 5-th Berkeley Symposium on Mathematical Statistics and Probability, Berkeley, University of California Press, 1:281-297.

Mathena, J., Yetter, A., & Hostetler, H. (2009) Success with Microsoft Dynamics CRM 4.0 : Implementing Customer Relationship Management. Philadelphia: Apress.

Mullin, R., & Cummins, J. (2008). Sales promotion: how to create, implement & integrate campaigns that really work. London: Kogan Page.

Newman, A., & Thomas, J. (2008). Enterprise 2.0 implementation. McGraw-Hill Professional. ISBN # 0071591605, 9780071591607.

Parise, S., Guinan, P., & Weinberg, B. (2008). The Secrets of Marketing in a Web 2.0 World. The Wall Street Journal. Available at:
<http://online.wsj.com/article/SB122884677205091919.html> (accessed on 30/Sep/2010).

Petty, C. & Steven, H. Gartner. (2009). Survey Shows Many Users are Underwhelmed by Their Experiences of SaaS. Gartner. Available at:
<http://www.gartner.com/it/page.jsp?id=1062512> (accessed on 19/Oct/2009)

Reinard, J. (2006). Communication Research Statistics, Thousand Oaks, CA, Sage Publications.

Rittinghouse, J., & Ransome, J. (2009). *Cloud Computing: Implementation, Management, and Security*. CRC Press. ISBN # 1439806802, 9781439806807

Roehl-Anderson, J.M. (2010). *IT Best Practices for Financial Managers*. John Wiley and Sons. ISBN # 0470585072, 9780470585078.

Rogers, J. (2008). *Users See Security Issues in SaaS*. *Network Computing for IT by IT*. Available at : <http://www.networkcomputing.com/backup-recovery/users-see-security-issues-in-saas.php> (accessed on 1/Sep/2010).

Rui, X., & Wunsh, D. (2009). *Clustering*. IEEE Press. ISBN # 9780470276808.

Software & Information Industry Association. (2001). *Software as a Service: Strategic Backgrounder*. Available at : <http://www.siaa.net/estore/pubs/SSB-01.pdf> (accessed on 12/Sept/2010).

Soheili, A. (2010). *Open Source Security Tools: Market Offers*. Masters Thesis, Technology Innovation Management, Carleton University, Ottawa, Ontario.

Sultan, A. (2007). *SaaS 101: The Benefits*. *Understanding the Software as a Service Revolution*. Available at : <http://www.saasblogs.com/2007/05/02/saas-101-the-benefits/> (accessed on 10/Sept/2010)

Teknomo, K. (2006). K-mean Clustering Tutorial. Available at:
<http://people.revoledu.com/kardi/tutorial/kMean/index.html> (accessed on Mar/18/2010)

Tuecke, S. (2005). Univa. Available at: <http://www.univaud.com/> (accessed on
10/Nov/2009)

Vargas, R. (2008). Practical Guide to Project Planning. Oxford: Auerbach publications.

Velte, T., Velte, A., & Elsenpeter, R. (2009). Cloud Computing: A Practical Approach.
McGraw Hill Professional. ISBN # 0071626948, 9780071626941

Violino, B. (2009). What Are the Hottest Areas for SaaS Apps?. Cio Zone. Available at:
<http://www.ciozone.com/index.php/Management/What-Are-the-Hottest-Areas-for-SaaS-Appsu.html> (accessed on 8/Sep/2010)

APPENDICES

Appendix- 1: List of companies

The following list is the list of 118 companies according to the sales business unit that have been used in this study (the URL's of companies):

<http://www.echosign.com/>
<http://www.bigmachines.com/>

<http://www.sesamesoftware.com/>
<http://www.arrowpointe.com/>
<http://www.docuSign.com/>
<http://www.drawloop.com/>
<http://www.xactlycorp.com/>
<http://www.funnelSource.com/>
<http://www.shareMethods.com/>
<http://www.demandbase.com/>
<http://www.fpx.com/>
<http://www.dreamfactory.com/>
<http://www.visualinsight.com/>
<http://www.insidesales.com/>
<http://www.assuresign.com/>
<http://www.boulderlogic.com/>
<http://www.sertifi.com/>
<http://www.shadetreetechnology.com/>
<http://www.marketsync.com/>
<http://www.pipelinemanager.com/>
<http://www.marketo.com/>
<http://www.zoominfo.com/>
<http://www.santcorp.com/>
<http://www.firmcloud.com/>
<http://www.salesways.com/>
<http://www.pivotlink.com/>

<http://www.mastermindsoftware.com/>
<http://www.kugamon.com/>
<http://www.scoutsft.com/>
<http://www.thetasgroup.com/>
<http://www.activalive.com/>
<http://www.ninthwavesolutions.com/>

<http://www.sendside.net/>

<http://www.incentiveprograms.com/>
<http://www.springcm.com/>
<http://www.cloudshare.com/>
<http://www.exari.com/>
<http://www.intellectinternational.net/>
<http://www.ebiztech.com/>
<http://www.emasys.com/>
<http://www.calleffect.com/>
<http://www.artesiansolutions.com/>
<http://www.netprospex.com/>
<http://www.exactship.com/>

<http://www.landslide.com/>
<http://www.territoryplan.com/>
<http://www.steelbrick.com/>
<http://www.callidussoftware.com/>
<http://www.predictiveresponse.com/>
<http://www.invisiblecrm.com/>
<http://www.linkpoint360.com/>

<http://www.cloud9analytics.com/>
<http://www.spisales.com/>
<http://www.myprivacyadvisor.com/>
<http://www.ahasoftware.com/>
<http://www.kadient.com/>

<http://www.vandesys.com/>
<http://www.onesource.com/>
<http://www.teledirect.com/>
<http://www.faondemand.com/>
<http://www.accorto.com/>
<http://www.terafuel.com/>
<http://salesoptimizer.force.com/>
<https://www.mypeoplemaps.com/>
<http://www.bluewolf.com/>
<http://www.etrigue.com/>
<http://www.appirio.com/>
<http://www.prospricing.com/>
<http://enterprise.jigsaw.com/>
<http://www.ribbit.com/>
<http://www.webcominc.com/>

<http://www.actevarsvp.com/>

<http://ink-a-note.com/>

<http://www.right90.com/>

<http://www.demandresults.com/>

<http://www.millerheiman.com/>

<http://www.access-commerce.com/>

<http://www.radianscore.com/>

<http://www.balink.net/>

<http://success.territoryplan.com/>

<https://us.intacct.com/>

<http://www.acfsolutions.com/>

<http://www.verticalresponse.com/>

<http://www.complexsale.com/>

<http://www.avendio.com/>

<http://www.qcommission.com/>

<http://www.mobileconnector.com/>

<http://www.quadbase.com/>

<http://www.saksoft.com/>

<http://www.terraign.com/>

<http://www.sakonent.com/>

<http://www.boomi.com/>

<http://www.cloud-craze.com/>

<http://www.lasso2go.com/>

<http://chapmanhq.com/>

<http://www.zymesolutions.com/>

<http://www.savogroup.com/>

<http://www.teravisiontech.com/>

<http://www.interactiveties.com/>

<http://www.yppquotes.com/>

<http://www2.app-x.com/>

<http://www.point-of-reference.com/>

<http://www.enecto.com/en/>

<http://www.riptideforce.com/>

<http://coldcalling101.com/>

<http://www.stratascope.com/>

<http://www.varicent.com/>

<http://www.provenworks.com/>

<http://www.broadchoice.com/>

<http://www.netexam.com/>

<http://www.mkpartners.com/>

<http://www.m5net.com/>
<http://www.ngenera.com/>
<http://www.activeprime.com/>
<http://jott.com/>
<http://www.cincomacquire.com/>
<http://www.forseva.com/>
<http://www.greatvines.com/>

<http://www.makanasolutions.com/>

The following list is the list of 107 companies according to the marketing business unit that have been used in this study (the URL's of companies):

<http://www.insideview.com/>

<http://www.genius.com/>
<http://www.clicktools.com/>

<http://www.marketo.com/index.php>
<http://www.arrowpointe.com/>
<http://www.pardot.com/>
<http://presentation.brainshark.com/>
<http://www.drawloop.com/>

<http://www.validar.com/>

<http://www.makesbridge.com/>

<http://www.sharemethods.com/>

<http://www.demandbase.com/>

<http://www.predictiveresponse.com/>

<http://www.postcodeanywhere.co.uk/>
<http://www.eloqua.com/>

<http://www.silverpop.com/>
<http://www.enigma.com/>
<http://www.marketsync.com/>

<http://www.boulderlogic.com/>

<http://www.zoominfo.com/>
<http://www.santcorp.com/>

<http://www.loopfuse.com/>

<http://www.demandresults.com/>

<http://www.insitusoftware.com/>
<http://www.firmcloud.com/>

<http://www.mastermindsoftware.com/>
<http://www.etrigue.com/>

<http://www.orchestracms.com/>
<http://solutions.liveperson.com/>

<http://www.invisiblecrm.com/>

<http://www.3marketeers.com/>

<http://www.treehousei.com/>
<http://www.steelbrick.com/>
<http://www.artesiansolutions.com/>

<http://www.marketinglucidity.com/>

<http://www.netprospex.com/>

<http://www.toucancrm.com/>

<http://www.ninthwavesolutions.com/>

<http://www.crmfusion.com/>

<http://www.rightoninteractive.com/>

<http://www.printsf.com/>

<http://www.cyangate.com/>

<http://www.appirio.com/>

<http://www.ezsaas.com/>

<http://www.scoutsft.com/>

<http://www.hubspot.com/>

http://www.sundog.net/home/index_2

<http://www.qas.co.uk/index-a.htm>

<http://www.onesource.com/>

<http://www.myprivacyadvisor.com/>

<http://www.teledirect.com/>

<http://www.kampyle.com/>

<https://www.mypeoplemaps.com/>

<http://enterprise.jigsaw.com/>

<http://email.exacttarget.com/>

<http://boomerang.com/default.aspx>

<http://www.actevarsvp.com/price.html>

<http://www.pagevester.com/en/>

<http://ink-a-note.com/>

<http://www.salesfusion.com/>

<http://www.documentmall.com/salesforce/>

<http://www.strongmail.com/>

<http://efactory.com/cms/index.php>

<http://www.vista-survey.com/>

<http://www.domodomain.com/>

<http://www.verticalresponse.com/>

<http://survey.timbasoftware.com/>

<http://ondemand.magneticnorth.com/>

<http://www.realmagnet.com/>

<http://crm.strikeiron.com/Home/Live-Data-for-Salesforce-CRM.aspx>

<http://www.postalmethods.com/>

<http://www.paretosystems.com/>

<http://www.greatvines.com/>

<http://www.activeconversion.com/>

<http://www.dreamfactory.com/>

<http://www.predictiveresponse.com/>

<http://www.nurturemyleads.com/>

<http://www.aprimo.com/>

<http://www.activeprime.com/>

<http://zipsearcher.com/>

<http://www.teravisiontech.com/>

<http://www.riptideforce.com/>

<http://www.lasso2go.com/>

<http://www.springcm.com/>
<http://www.maasimpact.com/>

<http://www.boldchat.com/>
<http://www.provenworks.com/>

<http://www.rooseconsulting.com/>
<http://www.input.com/default.cfm>

<http://www.emailvision.com/>
<http://www.stratascope.com/>

<http://www.genoo.com/>
<http://www.astadia.com/>

<http://www.4syndication.com/>

<http://www.infowelders.com/>
<http://www.fairsail.com/>
<http://www.istrategicpartners.com/>

<http://www.engagementsystems.com/>
<http://www.point-of-reference.com/>
<http://www.savogroup.com/>
<http://www.sakonent.com/>
<http://www.boomi.com/>
<http://www.cloud-craze.com/>
<http://www.walkerinfo.com/>

<http://www.firstspike.com/>

<http://www.actonsoftware.com/>

<http://www.conduitonline.com/>

The following list is the list of 44 companies according to the product management business unit that have been used in this study (the URL's of companies):

<http://www.sesamesoftware.com/>
<http://www.arrowpointe.com/>

<http://www.makesbridge.com/>
<http://funnelsource.com/>

<http://www.dreamfactory.com/>

<http://www.visualinsight.com/>

<http://www.demandresults.com/>
<http://www.birst.com/index.shtml>

<https://www.cloud9analytics.com/>

<http://www.sendside.net/>
<http://www.iq2020.com/>

<http://www.accorto.com/>
<http://www.in2clouds.com/>
<http://www.intellectinternational.net/>
<http://www.rumbleware.com/>
<http://www.gooddata.com/>
<http://www.ahasoftware.com/>
<http://www.forcemeister.com/>
<http://www.roambi.com/>
<http://level5biz.com/default.aspx>

<http://www.crystalreports.com/>
<http://salesoptimizer.force.com/>
<http://www.demandbase.com/>
<http://www.deciphertech.com/>
<http://www.salesfusion.com/>

<http://www.right90.com/>

<http://www.domodomain.com/>

<http://www.inetsoft.com/>

<http://www.acfsolutions.com/>

<http://www.infowelders.com/>

<http://www.leadlander.com/>

<http://www.youcalc.com/>

<http://www.xactium.com/>

<http://www.terralign.com/>

<http://www.landslide.com/>

<http://www.managementscorecards.com/>

<http://flexreporter.vintara.com/index.html>

<http://www.valgen.com/>

<http://www.visokio.com/>

<http://www.virtrock.com/vrdrupal/>

<http://www.vendavo.com/>

<http://www.shadowpmi.com/>

<http://community.qlikview.com/>

<http://www.angoss.com/>

<http://www.faondemand.com/>

The following list is the list of 57 companies according to the support and maintenance business unit that have been used in this study (the URL's of companies):

<http://www.ihance.com/>

<http://www.clicktools.com/sfdc/>

<http://www.zenkraft.com/>

<http://www.postcodeanywhere.co.uk/>

<http://www3.formassembly.com/pricing.php>

<http://www.ic-2000.com/>

<http://www.contactual.com/>

<http://www.exactship.com/>

<http://www.saaspoint.com/>

<http://www.ilinc.com/>
<http://solutions.liveperson.com/>
<http://www.activalive.com/>
<http://www.instant-service.com/>
<http://timedriver.timetrade.com/>
<http://www.westcoastconsulting.com/>
<http://www.liveops.com/salesforce/>
<http://www.ebiztech.com/>
<http://www.arrowpointe.com/>
<http://www.toucancrm.com/>
<http://www.insitusoftware.com/itools-delegated.php>
<http://www.cloudconversion.com/>
<http://www.zoomerang.com/salesforce/>
<http://forcebydesign.com/a/>
<http://www.qas.co.uk/index-a.htm>
<http://www.teamsupport.com/>
<http://www.scoutsft.com/>
<http://www.forcemeister.com/>
<https://curecrm.com/net/>
<http://www.kampyle.com/>
<http://www.linvio.com/>
<http://www.demandresults.com/>
<http://ondemand.magneticnorth.com/>
<http://info.helpstream.biz/HelpstreamCommunities.html>
<http://www.five9.com/>
<http://www.vista-survey.com/>
<http://www.x2od.com/>
<http://survey.timbasoftware.com/>
<http://www.insidesales.com/>
<http://www.get-satisfaction.com/>
<http://www.bceelix.com/ImpresarioWebSalesforce.asp?lng=1>
<http://www.8x8.com/>
<http://www.virtrock.com/vrdrupal/>
<http://www.inin.com/Pages/default.aspx>
<http://www.incontact.com/>
<http://www.steadfastglobal.com/>
<http://www.americandatacompany.com/>
<http://www.panterranetworks.com/>
<http://www.etch.net/home/>
<http://www.gpsdashboard.com/home/home.jsp>
<http://www.fairsail.com/>
<http://www.walkerinfo.com/>
<http://www.go2group.com/display/theme/Home>

<http://www.snapabug.com/>
<http://www.amctechnology.com/>
<http://www.inetsoft.com/>
<http://www.bmt-business.co.il/cms/>
<http://www.ortoomail.com/>
<http://www.syntellect.com/pages/default.aspx>

The following list is the list of 9 companies according to the project management business unit that have been used in this study (the URL's of companies):

<http://dreamfactory.com/>
<http://www.arrowpointe.com/>
<http://www.saleslogistix.com/>
<http://www.saaspoint.com/>
<http://www.attask.com/>
<http://www.projectorpsa.com/>
<http://level5biz.com/default.aspx>
<http://www.open.collab.net/>
<http://www.accorto.com/>
<http://www.mkpartners.com/>

The following list is the list of 26 companies according to the IT business unit that have been used in this study (the URL's of companies):

<http://dreamfactory.com/>
<http://www.pingidentity.com/>
<http://www.saleslogistix.com/>
<http://www.etherios.com/>
<http://aspiratech.net/>
<http://www.xobni.com/>
<http://www.teamsupport.com/>
<http://www.predictiveresponse.com/>
<http://salesoptimizer.force.com/>
<https://www.myonelogin.com/>
<http://www.rallydev.com/>
<https://secure.logmeinrescue.com/US/Helpdesk/Home.aspx>
<http://www.netkiller.com/>

<http://www.solidcore.com/>
<http://www.kailea.com/>
<http://www.avepoint.com/landing-page/>
<http://radialweb.com/>
<http://www.virtrock.com/vrdrupal/>
<http://www.scoutsft.com/>
<http://www.samanage.com/>
<http://www.multifa.com/>
<http://www.appirio.com/products/SvcsResource.php>
<http://www.open.collab.net/>
<http://www.arxxus.com/>
<http://www.arcot.com/>
<http://www.conformity-inc.com/>
<http://aetheroscrm.com/>

The following list is the list of 55 companies according to the Finance business unit that have been used in this study (the URL's of companies):

<http://www.bigmachines.com/>
<http://pervasivedatasolutions.com/home/Default.aspx>
<http://www.avankia.com/>
<http://www.zenkraft.com/>
<https://www.timeclockonline.com/>
<http://www.interweave.biz/>
<http://www.dreamfactory.com/>
<http://www.financialforce.com/>
<http://www.chikpea.com/>
<http://www.glovia.com/html/>
<http://www.zuora.com/>
<http://www.rogueit.net/>
<http://www1.app-x.com/>
<http://www.kugamon.com/>
<http://www.expensewire.com/>
<http://www.exari.com/>
<http://www.springcm.com/>
<http://www.westcoastconsulting.com/>
<http://www.softappspro.com/>
<http://www.accorto.com/>
<http://www.expensewatch.com/>
<http://salesoptimizer.force.com/>

<http://www.projectorpsa.com/>
<http://www.s4g.es/en/home.htm>
<https://www.expensify.com/>
<http://www.clickandpledge.com/>
<http://www.attask.com/>
<http://www.forseva.com/>
<http://us.intacct.com/>
<http://www.webcominc.com/>
<http://www.linvio.com/>
<http://efactory.com/cms/index.php>
<http://www.access-commerce.com/>
<http://www.netkiller.com/>
<http://www.modelmetrics.com/>
<http://www.terafuel.com/>
<http://www.stantive.com/>
<http://www.eway.com.au/>
<http://aetheroscrm.com/>
<http://www.conformity-inc.com/>
<http://www.mkpartners.com/>
<http://radialweb.com/>
<http://www.yppquotes.com/>
<http://www.payonomy.com/>
<http://www.advologix.com/>
<http://www.soxroxolutions.com/>
<http://www.compiere.com/>
<http://www.intelligencepartner.es/>
<http://www.timesheet.com/>
<http://www.mydbsync.com/>
<http://www.samanage.com/>
<http://www.entransform.com/>
<http://www.perceptivesoftware.com/>
<http://www.skipjack.com/>
<http://www.suppliersoft.com/>
<http://www.postalmethods.com/>

The following list is the list of 15 companies according to the HR business unit that have been used in this study (the URL's of companies):

<https://www.timeclockonline.com/>
<http://www.jobscience.com/>

<http://www.expensewire.com/>
<http://www.incentiveprograms.com/>
<http://www.expenswatch.com/>
<https://www.expensify.com/>
<http://salesoptimizer.force.com/>
<http://www.targetrecruit.net/>
<http://www.dreamfactory.com/>
<http://www.fairsail.com/>
<http://www.americandatacompany.com/>
<http://www.docverify.com/>
<http://www.entransform.com/>
<http://www.perceptivesoftware.com/>
<http://www.appynet.com/>
<http://www.riptideforce.com/>

Appendix- 2: List of companies for each sales factor

Sorted by highest weighted loading

Factor 1: Quote Generation

<http://www.access-commerce.com/>
<http://www.echosign.com/>
<http://www.bigmachines.com/>
<http://www.terralign.com/>
<http://coldcalling101.com/>
<http://jott.com/>
<http://www.activeprime.com/>
<http://www.cincomacquire.com/>
<http://www.enecto.com/en/>
<http://www.m5net.com/>
<http://www.makanasolutions.com/>
<http://www.mkpartners.com/>
<http://www.riptideforce.com/>
<http://www.varicent.com/>
<http://www.arrowpointe.com/>
<http://www.millerheiman.com/>
<http://www.docusign.com/>

Factor 2: Quote Tracking

<http://www.access-commerce.com/>
<http://www.bigmachines.com/>
<http://www.terralign.com/>
<http://www.echosign.com/>
<http://coldcalling101.com/>
<http://jott.com/>
<http://www.activeprime.com/>
<http://www.cincomacquire.com/>
<http://www.enecto.com/en/>
<http://www.m5net.com/>
<http://www.makanasolutions.com/>
<http://www.mkpartners.com/>
<http://www.riptideforce.com/>
<http://www.varicent.com/>

<http://www.arrowpointe.com/>
<http://www.millerheiman.com/>
<http://www.docusign.com/>
<http://www.radianscore.com/>

Factor 3: Sales Contracts Management and E-signatures

<http://www.access-commerce.com/>
<http://www.bigmachines.com/>
<http://www.echosign.com/>
<http://www.docusign.com/>
<http://www.arrowpointe.com/>
<http://www.drawloop.com/>
<http://www.sharemethods.com/>
<http://www.xactlycorp.com/>
<http://www.funnelsource.com/>
<http://www.demandbase.com/>
<http://www.thetasgroup.com/>
<http://www.springcm.com/>
<http://www.activalive.com/>
<http://www.sendside.net/>
<http://www.cloudshare.com/>
<http://www.salesways.com/>
<http://www.mastermindsoftware.com/>
<http://www.exari.com/>
<http://www.marketo.com/>
<http://www.pivotlink.com/>
<http://www.zoominfo.com/>
<http://www.artesiansolutions.com/>
<http://www.emasys.com/>
<http://www.exactship.com/>
<http://www.ahasoftware.com/>
<http://www.callidussoftware.com/>
<http://www.cloud9analytics.com/>
<http://www.invisiblecrm.com/>
<http://www.landslide.com/>
<http://www.netprospex.com/>
<http://www.predictiveresponse.com/>
<http://www.spisales.com/>
<http://www.territoryplan.com/>
<http://enterprise.jigsaw.com/>

<http://www.faondemand.com/>
<http://www.kadient.com/>
<http://www.onesource.com/>
<http://www.ribbit.com/>
<http://www.right90.com/>
<http://www.teledirect.com/>
<http://www.terafuel.com/>
<http://www.webcominc.com/>

Factor 4: Sales Territory

<http://www.terralign.com/>
<http://www.access-commerce.com/>
<http://www.bigmachines.com/>
<http://www.activeprime.com/>
<http://www.echosign.com/>
<http://coldcalling101.com/>
<http://jott.com/>
<http://www.cincomacquire.com/>
<http://www.enecto.com/en/>
<http://www.m5net.com/>
<http://www.makanasolutions.com/>
<http://www.mkpartners.com/>
<http://www.varicent.com/>
<http://www.riptideforce.com/>
<http://success.territoryplan.com/>
<http://www.territoryplan.com/>
<http://www.arrowpointe.com/>

Factor 5: Sales Pipeline and Analyzing Events

<http://www.right90.com/>
<http://www.ahasoftware.com/>
<http://www.millerheiman.com/>
<http://www.emasys.com/>
<http://www.cloud9analytics.com/>
<http://www.thetasgroup.com/>
<http://www.activeprime.com/>
<http://chapmanhq.com/>

Appendix- 3: List of companies for each marketing factor

Sorted by highest weighted loading

Factor 1: Marketing Automation

<http://www.marketo.com/index.php>
<http://www.genius.com/>
<http://www.eloqua.com/>
<http://www.etrigue.com/>
<http://www.activeconversion.com/>
<http://www.salesfusion.com/>
<http://www.genoo.com/>
<http://www.silverpop.com/>
<http://www.loopfuse.com/>
<http://www.nurturemyleads.com/>
<http://www.treehousei.com/>
<http://www.maasimpact.com/>
<http://www.predictiveresponse.com/>
<http://www.predictiveresponse.com/>
<http://www.makesbridge.com/>
<http://www.pardot.com/>
<http://www.rightoninteractive.com/>
<http://www.strongmail.com/>

Factor 2: Relationship Marketing

<http://www.zoominfo.com/>
<http://www.netprospex.com/>
<http://www.demandbase.com/>
<http://www.onesource.com/>

Factor 3: Integrated Marketing Communications

<http://www.demandresults.com/>
<http://www.genius.com/>

<http://www.insideview.com/>
<http://presentation.brainshark.com/>
<http://www.clicktools.com/>
<http://www.strongmail.com/>
<http://www.salesfusion.com/>
<http://www.marketo.com/index.php>
<http://www.arrowpointe.com/>
<http://www.genoo.com/>
<http://www.verticalresponse.com/>
<http://www.nurturemyleads.com/>
<http://www.activeconversion.com/>
<http://www.pardot.com/>
<http://www.eloqua.com/>
<http://www.loopfuse.com/>

Factor 4: Permission Marketing

<http://www.demandresults.com/>
<http://www.strongmail.com/>
<http://www.salesfusion.com/>
<http://www.3marketeters.com/>
<http://www.pagevester.com/en/>
<http://www.realmagnet.com/>
<http://www.activeconversion.com/>
<http://www.loopfuse.com/>
<http://enterprise.jigsaw.com/>
<http://www.mastermindsoftware.com/>
<http://www.maasimpact.com/>
<http://www.myprivacyadvisor.com/>
<http://www.genoo.com/>
<http://www.astadia.com/>
<http://ondemand.magneticnorth.com/>
<http://www.treehousei.com/>
<http://www.zoominfo.com/>
<http://www.silverpop.com/>
<http://efactory.com/cms/index.php>
<http://www.eloqua.com/>
<http://www.rightoninteractive.com/>
<http://www.etrigue.com/>
<http://www.onesource.com/>
<http://www.boulderlogic.com/>

<http://www.teledirect.com/>
<http://www.vista-survey.com/>
<http://www.kampyle.com/>
<http://solutions.liveperson.com/>

Factor 5: Lead Management

<http://www.marketo.com/index.php>
<http://www.eloqua.com/>
<http://www.salesfusion.com/>
<http://www.genius.com/>
<http://www.etrigue.com/>
<http://www.activeconversion.com/>
<http://www.silverpop.com/>
<http://www.predictiveresponse.com/>
<http://www.predictiveresponse.com/>
<http://www.nurturemyleads.com/>
<http://www.loopfuse.com/>
<http://www.treehousei.com/>
<http://www.makesbridge.com/>
<http://www.pardot.com/>
<http://www.genoo.com/>
<http://www.boldchat.com/>
<http://www.maasimpact.com/>

Factor 6: Market Research

<http://www.arrowpointe.com/>
<http://www.marketo.com/index.php>
<http://www.activeconversion.com/>
<http://www.astadia.com/>
<http://www.boomi.com/>
<http://www.conduitonline.com/>
<http://www.springcm.com/>
<http://www.genoo.com/>
<http://www.istrategicpartners.com/>
<http://www.aprimo.com/>
<http://www.dreamfactory.com/>
<http://www.paretosystems.com/>

<http://www.greatvines.com/>
<http://www.predictiveresponse.com/>
<http://www.maasimpact.com/>
<http://www.nurturemyleads.com/>
<http://www.activeprime.com/>
<http://www.fairsail.com/>
<http://www.4syndication.com/>
<http://www.teravisiontech.com/>
<http://www.boldchat.com/>
<http://www.emailvision.com/>
<http://www.postalmethods.com/>
<http://www.cloud-craze.com/>
<http://www.infowelders.com/>
<http://www.lasso2go.com/>
<http://www.riptideforce.com/>
<http://zipsearcher.com/>
<http://www.walkerinfo.com/>
<http://www.stratascope.com/>
<http://www.verticalresponse.com/>
<http://www.clicktools.com/>
<http://www.genius.com/>
<http://www.insideview.com/>

Factor 7: Advertising

<http://www.genius.com/>
<http://www.walkerinfo.com/>
<http://www.nurturemyleads.com/>
<http://www.maasimpact.com/>
<http://www.aprimo.com/>
<http://www.istrategicpartners.com/>
<http://www.genoo.com/>
<http://www.conduitonline.com/>
<http://www.astadia.com/>
<http://www.activeconversion.com/>
<http://www.eloqua.com/>
<http://www.silverpop.com/>
<http://www.sharemethods.com/>
<http://www.zoominfo.com/>
<http://www.salesfusion.com/>
<http://www.treehousei.com/>

<http://www.strongmail.com/>
<http://www.mastermindsoftware.com/>
<http://enterprise.jigsaw.com/>
<http://www.3marketeters.com/>
<http://www.demandresults.com/>

Factor 8: Internet Marketing

<http://www.demandresults.com/>
<http://www.strongmail.com/>
<http://www.conduitonline.com/>
<http://www.genius.com/>
<http://www.silverpop.com/>
<http://www.activeconversion.com/>
<http://www.genoo.com/>
<http://www.treehousei.com/>
<http://www.maasimpact.com/>
<http://www.salesfusion.com/>
<http://www.sharemethods.com/>
<http://www.nurturemyleads.com/>
<http://www.eloqua.com/>
<http://www.pagevester.com/en/>
<http://www.predictiveresponse.com/>
<http://www.predictiveresponse.com/>
<http://www.boulderlogic.com/>
<http://www.pardot.com/>
<http://ondemand.magneticnorth.com/>
<http://presentation.brainshark.com/>
<http://www.etrigue.com/>
<http://www.rightoninteractive.com/>
<http://www.loopfuse.com/>
<http://www.emailvision.com/>
<http://www.makesbridge.com/>
<http://www.marketo.com/index.php>

Factor 9: Campaign Management

<http://www.marketo.com/index.php>
<http://www.activeconversion.com/>

<http://www.genius.com/>
<http://www.eloqua.com/>
<http://www.loopfuse.com/>
<http://www.genoo.com/>
<http://www.silverpop.com/>
<http://www.nurturemyleads.com/>
<http://www.etrigue.com/>
<http://presentation.brainshark.com/>
<http://www.salesfusion.com/>
<http://www.maasimpact.com/>
<http://www.demandresults.com/>
<http://www.strongmail.com/>
<http://www.pardot.com/>
<http://www.pagevester.com/en/>
<http://www.treehousei.com/>
<http://www.emailvision.com/>
<http://www.conduitonline.com/>
<http://www.predictiveresponse.com/>
<http://www.predictiveresponse.com/>
<http://enterprise.jigsaw.com/>
<http://www.aprimo.com/>
<http://www.toucancrm.com/>
<http://www.printsf.com/>
<http://www.mastermindsoftware.com/>
<http://www.3marketeters.com/>
<http://www.documentmall.com/salesforce/>

Appendix- 4: List of companies for each product management factor

Sorted by highest weighted loading

Factor 1: Competitive Analysis

<http://www.ahasoftware.com/>
<http://www.roambi.com/>
<http://www.sendside.net/>
<http://www.rumbleware.com/>
<http://www.accorto.com/>
<http://www.gooddata.com/>
<https://www.cloud9analytics.com/>
<http://www.demandresults.com/>
<http://www.dreamfactory.com/>
<http://funnelsource.com/>
<http://www.right90.com/>
<http://www.salesfusion.com/>
<http://www.demandbase.com/>
<http://www.deciphertech.com/>
<http://www.crystalreports.com/>
<http://www.acfsolutions.com/>
<http://www.inetsoft.com/>
<http://www.domodomain.com/>
<http://www.leadlander.com/>

Factor 2: Product Design

<http://www.vendavo.com/>
<http://www.landslide.com/>
<http://www.valgen.com/>
<http://www.angoss.com/>
<http://www.faondemand.com/>
<http://www.xactium.com/>
<http://www.managementscorecards.com/>
<http://www.terralign.com/>
<http://community.qlikview.com/>
<http://www.visokio.com/>
<http://www.domodomain.com/>
<http://www.leadlander.com/>

Factor 3: Product Management

<http://www.ahasoftware.com/>
<http://www.sendside.net/>
<http://www.rumbleware.com/>
<https://www.cloud9analytics.com/>
<http://www.roambi.com/>
<http://www.accorto.com/>
<http://www.gooddata.com/>
<http://www.demandresults.com/>
<http://funnelsource.com/>
<http://www.dreamfactory.com/>
<http://www.deciphertech.com/>
<http://www.right90.com/>
<http://www.crystalreports.com/>
<http://www.salesfusion.com/>
<http://www.demandbase.com/>
<http://www.domodomain.com/>
<http://www.inetsoft.com/>
<http://www.acfsolutions.com/>

Appendix- 5: List of companies for each support and maintenance factor

Sorted by highest weighted loading

Factor 1: Call Center Operations

<http://www.instant-service.com/>
<http://www.zoomerang.com/salesforce/>
<http://www.ebiztech.com/>
<http://www.team-support.com/>
<http://www.contactual.com/>
<http://solutions.liveperson.com/>
<http://www.liveops.com/salesforce/>
<http://www.insitusoftware.com/itools-delegated.php>
<http://www.activalive.com/>
<http://forcebydesign.com/a/>
<http://www.five9.com/>
<http://www.linvio.com/>
<http://www.forcemeister.com/>
<http://www.arrowpointe.com/>
<http://timedriver.timetrade.com/>
<http://www.ilinc.com/>
<http://info.helpstream.biz/HelpstreamCommunities.html>
<http://www3.formassembly.com/pricing.php>
<http://www.kampyle.com/>
<http://www.toucancrm.com/>
<http://www.x2od.com/>
<http://www.scoutsft.com/>
<http://www.westcoastconsulting.com/>
<http://www.cloudconversion.com/>
<http://ondemand.magneticnorth.com/>
<http://www.exactship.com/>
<http://www.saaspoint.com/>
<http://www.demandresults.com/>
<http://www.qas.co.uk/index-a.htm>
<https://curecrm.com/net/>
<http://www.zenkraft.com/>
<http://www.postcodeanywhere.co.uk/>
<http://www.ic-2000.com/>
<http://www.insidesales.com/>
<http://www.vista-survey.com/>

Factor 2: Support Services Management

<http://www.inetsoft.com/>
<http://www.scoutsft.com/>
<http://www.go2group.com/display/theme/Home>
<http://forcebydesign.com/a/>
<http://www.amctechnology.com/>
<http://www.teamsupport.com/>
<http://www.ortoomail.com/>
<https://curecrm.com/net/>
<http://www.syntellect.com/pages/default.aspx>
<http://www.kampyle.com/>
<http://www.gpsdashboard.com/home/home.jsp>
<http://www.insitusoftware.com/itools-delegated.php>
<http://www.fairsail.com/>
<http://www.zoomerang.com/salesforce/>
<http://www.walkerinfo.com/>
<http://www.cloudconversion.com/>
<http://www.bmt-business.co.il/cms/>
<http://www.forcemeister.com/>
<http://www.snapabug.com/>
<http://www.qas.co.uk/index-a.htm>
<http://www.steadfastglobal.com/>
<http://www.liveops.com/salesforce/>

Factor 3: Knowledge Base

<http://www3.formassembly.com/pricing.php>
<http://www.zoomerang.com/salesforce/>
<http://www.insitusoftware.com/itools-delegated.php>
<http://www.teamsupport.com/>
<http://www.postcodeanywhere.co.uk/>
<http://www.walkerinfo.com/>
<http://www.incontact.com/>
<http://www.getsatisfaction.com/>
<http://www.x2od.com/>
<http://www.demandresults.com/>
<http://www.americandatacompany.com/>
<http://www.panterranetworks.com/>

<http://www.8x8.com/>
<http://www.amctechnology.com/>
<http://www.bceelix.com/ImpresarioWebSalesforce.asp?lng=1>
<http://www.clicktools.com/sfdc/>
<http://www.liveops.com/salesforce/>
<http://forcebydesign.com/a/>
<http://www.linvio.com/>

Factor 4: Support Metrics

<http://www.zoomerang.com/salesforce/>
<http://www.clicktools.com/sfdc/>
<http://www.x2od.com/>
<http://www.instantservice.com/>
<http://www.inetsoft.com/>
<http://www.8x8.com/>
<http://www.liveops.com/salesforce/>
<http://www.insitusoftware.com/itools-delegated.php>
<http://www3.formassembly.com/pricing.php>
<http://www.teamsupport.com/>
<http://www.panterranetworks.com/>
<http://www.walkerinfo.com/>
<http://www.linvio.com/>
<http://www.bceelix.com/ImpresarioWebSalesforce.asp?lng=1>
<http://www.insidesales.com/>
<http://ondemand.magneticnorth.com/>
<http://www.forcemeister.com/>
<http://www.incontact.com/>
<http://www.arrowpointe.com/>
<http://www.contactual.com/>
<http://timedriver.timetrade.com/>
<http://www.demandresults.com/>
<http://www.ebiztech.com/>
<http://www.ilinc.com/>
<http://forcebydesign.com/a/>
<http://www.postcodeanywhere.co.uk/>
<http://www.americandatacompany.com/>
<http://www.fairsail.com/>

Factor 5: Licensees Management

<http://www.zoomerang.com/salesforce/>
<http://www.clicktools.com/sfdc/>
<http://www.inetsoft.com/>
<http://www.8x8.com/>
<http://www.contactual.com/>
<http://www.panterranetworks.com/>
<http://www.five9.com/>
<http://www.incontact.com/>
<http://www.instant-service.com/>
<http://www.insidesales.com/>
<http://www.liveops.com/salesforce/>
<http://www.walkerinfo.com/>
<http://www.activalive.com/>
<http://www.ebiztech.com/>
<http://www.x2od.com/>
<http://www.teamsupport.com/>
<http://www.americandatacompany.com/>
<http://www.amctechnology.com/>
<http://www3.formassembly.com/pricing.php>
<http://www.bceelix.com/ImpresarioWebSalesforce.asp?lng=1>
<http://www.insitusoftware.com/itools-delegated.php>
<http://ondemand.magneticnorth.com/>
<http://www.ilinc.com/>
<http://www.linvio.com/>
<http://forcebydesign.com/a/>

Factor 6: Helpdesk

<http://www.insitusoftware.com/itools-delegated.php>
<http://www.postcodeanywhere.co.uk/>
<http://www.zoomerang.com/salesforce/>
<http://www.walkerinfo.com/>
<http://www.getsatisfaction.com/>
<http://www.cloudconversion.com/>
<http://forcebydesign.com/a/>
<http://www.linvio.com/>
<http://www.demandresults.com/>

<http://timedriver.timetrade.com/>
<http://www.ilinc.com/>
<http://www.incontact.com/>
<http://www.westcoastconsulting.com/>
<http://www.ihance.com/>
<http://www.kampyle.com/>
<http://www.zenkraft.com/>
<http://www.contactual.com/>
<http://solutions.liveperson.com/>
<http://www.five9.com/>
<http://www.qas.co.uk/index-a.htm>
<https://curecrm.com/net/>
<http://www.ic-2000.com/>
<http://www.saaspoint.com/>
<http://www.toucancrm.com/>
<http://www.scoutsft.com/>
<http://www.forcemeister.com/>
<http://www3.formassembly.com/pricing.php>
<http://www.ebiztech.com/>
<http://www.activalive.com/>
<http://www.liveops.com/salesforce/>
<http://www.clicktools.com/sfdc/>
<http://www.exactship.com/>
<http://www.arrowpointe.com/>

Factor 7: Customer Service

<http://www.contactual.com/>
<http://www.five9.com/>
<http://www.instant-service.com/>
<http://info.helpstream.biz/HelpstreamCommunities.html>
<http://www.ebiztech.com/>
<http://solutions.liveperson.com/>
<http://www.activalive.com/>
<http://www.liveops.com/salesforce/>
<http://www.teamsupport.com/>
<http://forcebydesign.com/a/>
<http://www.panterranetworks.com/>
<http://www.cloudconversion.com/>
<http://ondemand.magneticnorth.com/>
<http://www.incontact.com/>

<http://www.westcoastconsulting.com/>
<http://www.ilinc.com/>
<http://www.8x8.com/>
<http://www.amctechnology.com/>
<http://timedriver.timetrade.com/>
<http://www.kampyle.com/>
<http://www.saaspoint.com/>
<http://www.linvio.com/>
<http://www.scoutsft.com/>
<http://www.qas.co.uk/index-a.htm>
<https://curecrm.com/net/>
<http://www.forcemeister.com/>
<http://www.exactship.com/>
<http://www.arrowpointe.com/>
<http://www.toucancrm.com/>
<http://www.zoomerang.com/salesforce/>
<http://www.insitusoftware.com/itools-delegated.php>
<http://www.ic-2000.com/>
<http://www.postcodeanywhere.co.uk/>
<http://www.zenkraft.com/>
<http://www.demandresults.com/>
<http://www3.formassembly.com/pricing.php>
<http://www.bceelix.com/ImpresarioWebSalesforce.asp?lng=1>

Appendix- 6: List of companies for each HR factor

Sorted by highest weighted loading

Factor 1: Employee Promotions

<http://www.incentiveprograms.com/>
<https://www.expensify.com/>
<http://www.expensewire.com/>
<http://www.expens-watch.com/>
<http://www.fairsail.com/>
<https://www.timeclockonline.com/>
<http://www.targetrecruit.net/>

Factor 2: Career Development

<http://www.perceptivesoftware.com/>
<http://www.appynet.com/>
<http://www.entransform.com/>
<http://www.docverify.com/>
<http://www.fairsail.com/>
<http://www.americandatacompany.com/>
<http://www.riptideforce.com/>
<https://www.expensify.com/>

Factor 3: Recruitment and Performance Reviews

<http://www.fairsail.com/>
<http://www.targetrecruit.net/>
<http://www.incentiveprograms.com/>
<https://www.expensify.com/>
<http://www.expens-watch.com/>

Factor 4: Hiring Process

<http://www.targetrecruit.net/>

<http://www.dreamfactory.com/>
<http://www.fairsail.com/>
<http://www.expensewatch.com/>
<http://www.riptideforce.com/>
<https://www.timeclockonline.com/>

Factor 5: Employee Transfer

<http://www.dreamfactory.com/>
<http://www.americandatacompany.com/>
<http://www.riptideforce.com/>
<http://www.entransform.com/>
<http://www.perceptivesoftware.com/>
<http://www.docverify.com/>
<http://www.appynet.com/>

Appendix- 7: List of companies for all business factors

Sorted by highest weighted loading

Factor 1: Marketing Automation

<http://www.marketo.com/index.php>
<http://www.eloqua.com/>
<http://www.genius.com/>
<http://www.etrigue.com/>
<http://www.activeconversion.com/>
<http://www.salesfusion.com/>
<http://www.genoo.com/>
<http://www.silverpop.com/>
<http://www.loopfuse.com/>
<http://www.nurturemyleads.com/>
<http://www.treehousei.com/>
<http://www.maasimpact.com/>
<http://www.makesbridge.com/>
<http://www.pardot.com/>
<http://www.righthoninteractive.com/>
<http://www.strongmail.com/>
<http://www.emailvision.com/>
<http://www.3marketeers.com/>
<http://presentation.brainshark.com/>
<http://www.conduitonline.com/>
<http://www.printsf.com/>
<http://www.demandresults.com/>
<http://www.pagevester.com/en/>
<http://www.toucancrm.com/>
<http://www.aprimo.com/>
<http://www.validar.com/>

Factor 2: Project Management

<http://www.attask.com/>
<http://www.saleslogistix.com/>
<http://www.projectorpsa.com/>
<http://www.open.collab.net/>
<http://dreamfactory.com/>

Factor 3: Administration Support Operations

<http://www.zoomerang.com/salesforce/>
<http://www.insitusoftware.com/itools-delegated.php>
<http://www.clicktools.com/sfdc/>
<http://www.instant-service.com/>
<http://www.teamsupport.com/>
<http://www3.formassembly.com/pricing.php>
<http://www.contactual.com/>
<http://www.8x8.com/>
<http://www.x2od.com/>
<http://www.bceelix.com/ImpresarioWebSalesforce.asp?lng=1>
<http://www.ebiztech.com/>
<http://www.five9.com/>
<http://www.incontact.com/>
<http://www.panterranetworks.com/>
<http://www.liveops.com/salesforce/>
<http://www.insidesales.com/>
<http://www.linvio.com/>
<http://forcebydesign.com/a/>
<http://www.americandatacompany.com/>
<http://www.ilinc.com/>
<http://www.amctechnology.com/>
<http://timedriver.timetrade.com/>
<http://www.forcemeister.com/>
<http://www.ihance.com/>
<http://www.getsatisfaction.com/>
<http://www.scoutsft.com/>
<http://www.zenkraft.com/>
<http://info.helpstream.biz/HelpstreamCommunities.html>
<http://www.westcoastconsulting.com/>
<http://www.cloudconversion.com/>
<http://survey.timbasoftware.com/>
<http://www.saaspoint.com/>
<https://curecrm.com/net/>
<http://www.snapabug.com/>
<http://www.virtrock.com/vrdrupal/>
<http://www.ic-2000.com/>

Factor 4: Finance Operations

<http://www.eway.com.au/>
<http://www.mydbsync.com/>
<http://www.interweave.biz/>
<http://www.expensewire.com/>
<http://www.rogueit.net/>
<http://www.payonomy.com/>
<http://www.financialforce.com/>
<http://www.glovia.com/html/>
<http://www.timesheet.com/>
<http://www.zuora.com/>
<http://www.chikpea.com/>
<http://www.compiere.com/>
<http://www1.app-x.com/>
<http://www.avankia.com/>
<http://www.kugamon.com/>
<http://www.modelmetrics.com/>
<http://www.advologix.com/>
<https://www.timeclockonline.com/>
<http://www.exactship.com/>
<http://www.ahasoftware.com/>
<http://www.intelligencepartner.es/>
<http://www.rumbleware.com/>
<http://www.mkpartners.com/>
<http://www.sendside.net/>
<http://www.incentiveprograms.com/>
<http://www.qcommission.com/>
<http://www.sharemethods.com/>
<http://www.terafuel.com/>
<http://us.intacct.com/>
<http://www.teravisiontech.com/>
<http://www.enecto.com/en/>
<http://www.saleslogistix.com/>
<https://us.intacct.com/>
<http://www.rallydev.com/>
<http://www.santcorp.com/>
<http://www.expensewatch.com/>

Factor 5: Permission Marketing

<http://www.demandresults.com/>
<http://www.genius.com/>

<http://www.strongmail.com/>
<http://www.salesfusion.com/>
<http://presentation.brainshark.com/>
<http://www.insideview.com/>
<http://www.activeconversion.com/>
<http://www.pagevester.com/en/>
<http://www.genoo.com/>
<http://www.astadia.com/>
<http://www.loopfuse.com/>
<http://www.myprivacyadvisor.com/>
<http://www.maasimpact.com/>
<http://www.eloqua.com/>
<http://www.teravisiontech.com/>
<http://www.boulderlogic.com/>
<http://www.silverpop.com/>
<http://www.realmagnet.com/>
<http://www.aprimo.com/>
<http://www.boldchat.com/>

Factor 6: Call Center Operations

<http://www.liveops.com/salesforce/>
<http://www.five9.com/>
<http://www.contactual.com/>
<http://www.panterranetworks.com/>
<http://www.8x8.com/>
<http://www.incontact.com/>
<http://www.amctechnology.com/>
<http://www.bceelix.com/ImpresarioWebSalesforce.asp?lng=1>
<http://www.clicktools.com/sfdc/>
<http://www.zoomerang.com/salesforce/>
<http://www.instant-service.com/>
<http://www.ebiztech.com/>
<http://www.insidesales.com/>
<http://www.team-support.com/>
<http://www3.formassembly.com/pricing.php>
<http://www.insitusoftware.com/itools-delegated.php>
<http://info.helpstream.biz/HelpstreamCommunities.html>
<http://forcebydesign.com/a/>
<http://www.americandatacompany.com/>
<http://www.x2od.com/>

<http://www.ilinc.com/>
<http://www.linvio.com/>
<http://timedriver.timetrade.com/>
<http://www.forcemeister.com/>
<http://www.westcoastconsulting.com/>
<http://www.scoutsft.com/>
<http://www.cloudconversion.com/>
<http://www.zenkraft.com/>
<http://www.ihance.com/>
<http://survey.timbasoftware.com/>
<http://www.snapabug.com/>
<http://www.getsatisfaction.com/>
<http://www.saaspoint.com/>
<http://www.virtrock.com/vrdrupal/>
<http://www.steadfastglobal.com/>
<http://www.ic-2000.com/>

Factor 7: Integrated Marketing Communications

<http://www.genius.com/>
<http://www.demandresults.com/>
<http://www.insideview.com/>
<http://www.access-commerce.com/>
<http://www.marketo.com/index.php>
<http://presentation.brainshark.com/>
<http://www.clicktools.com/>
<http://www.eloqua.com/>
<http://www.salesfusion.com/>
<http://www.genoo.com/>
<http://www.strongmail.com/>
<http://www.activeconversion.com/>
<http://www.etrigue.com/>
<http://www.nurturemyleads.com/>
<http://www.bigmachines.com/>
<http://www.silverpop.com/>
<http://www.loopfuse.com/>
<http://www.clicktools.com/sfdc/>
<http://www.maasimpact.com/>
<http://www.pardot.com/>
<http://www.3marketeters.com/>
<http://www.astadia.com/>

<http://www.conduitonline.com/>
<http://www.echosign.com/>
<http://www.aprimo.com/>
<http://www.treehousei.com/>
<http://www.emailvision.com/>
<http://www.terralign.com/>
<http://www.teravisiontech.com/>
<http://us.intacct.com/>
<http://www.ihance.com/>
<http://www.makesbridge.com/>
<http://www.boldchat.com/>
<http://www.myprivacyadvisor.com/>
<http://www.stratascope.com/>
<http://www.istrategicpartners.com/>
<http://www.paretosystems.com/>
<http://www.lasso2go.com/>
<http://www.greatvines.com/>
<http://www.walkerinfo.com/>
<http://www.boomi.com/>
<http://www.dreamfactory.com/>
<http://www.arrowpointe.com/>
<http://www.4syndication.com/>
<http://www.fairsail.com/>
<http://zipsearcher.com/>
<http://www.cloud-craze.com/>
<http://www.vendavo.com/>
<http://www.valgen.com/>
<http://www.angoss.com/>
<http://www.xactium.com/>
<http://www.managementscorecards.com/>
<http://community.qlikview.com/>
<http://coldcalling101.com/>
<http://jott.com/>
<http://www.activeprime.com/>
<http://www.cincomacquire.com/>
<http://www.m5net.com/>
<http://www.makanasolutions.com/>
<http://www.riptideforce.com/>
<http://www.varicent.com/>
<http://www.infowelders.com/>
<http://www.inin.com/Pages/default.aspx>
<http://www.etouch.net/home/>
<http://www.gpsdashboard.com/home/home.jsp>

<http://www.go2group.com/display/theme/Home>
<http://www.bmt-business.co.il/cms/>
<http://www.ortoomail.com/>
<http://www.syntellect.com/pages/default.aspx>
<http://radialweb.com/>
<http://www.samanage.com/>
<http://www.multifa.com/>
<http://aetheroscrm.com/>
<http://www.entransform.com/>
<http://www.perceptivesoftware.com/>
<http://www.docverify.com/>
<http://www.appynet.com/>
<http://www.arcot.com/>
<http://www.arxxus.com/>
<http://www.kailea.com/>
<http://www.conformity-inc.com/>
<http://www.open.collab.net/>
<http://www.visokio.com/>
<http://www.solidcore.com/>
<http://www.enecto.com/en/>
<http://www.mkpartners.com/>
<http://www.intelligencepartner.es/>
<http://www.advologix.com/>
<http://www.compiere.com/>
<http://www.timesheet.com/>
<http://www.payonomy.com/>
<http://www.mydbsync.com/>
<http://www.steadfastglobal.com/>
<http://www.virtrock.com/vrdrupal/>
<http://www.snapabug.com/>
<http://www.americandatacompany.com/>
<http://www.amctechnology.com/>
<http://www.incontact.com/>
<http://www.panerranetworks.com/>
<http://www.postalmethods.com/>

Factor 8: IT Operations

<http://www.solidcore.com/>
<http://aspiratech.net/>
<https://www.myonelogin.com/>

<http://www.arcot.com/>
<http://aetheroscrm.com/>
<http://www.conformity-inc.com/>
<http://www.samanage.com/>
<http://www.xobni.com/>
<http://www.arxxus.com/>
<http://www.kailea.com/>
<http://www.rallydev.com/>
<http://www.multifa.com/>
<http://www.pingidentity.com/>
<http://www.etherios.com/>
<http://www.zymesolutions.com/>
<http://chapmanhq.com/>
<http://www.bceelix.com/ImpresarioWebSalesforce.asp?lng=1>
<http://www.8x8.com/>
<http://www.eway.com.au/>
<http://www.getssatisfaction.com/>
<http://www.modelmetrics.com/>
<http://www.insidesales.com/>
<http://www.saksoft.com/>
<http://www.x2od.com/>
<http://www.qcommission.com/>
<http://www.avendio.com/>
<http://www.complexsale.com/>
<http://success.territoryplan.com/>
<http://www.acfsolutions.com/>
<http://www.verticalresponse.com/>
<http://survey.timbasoftware.com/>
<http://info.helpstream.biz/HelpstreamCommunities.html>
<http://www.five9.com/>
<https://us.intacct.com/>
<https://www.mypeoplemaps.com/>
<http://enterprise.jigsaw.com/>
<http://www.faondemand.com/>
<http://www.kadient.com/>
<http://www.onesource.com/>
<http://www.ribbit.com/>
<http://www.right90.com/>
<http://www.teledirect.com/>
<http://www.webcominc.com/>
<http://www.qas.co.uk/index-a.htm>
<http://level5biz.com/default.aspx>
<http://www.targetrecruit.net/>

<http://www.projectorpsa.com/>
<https://curecrm.com/net/>
<http://www.attask.com/>
<https://www.expensify.com/>
<http://www.terafuel.com/>
<http://www.scoutsft.com/>
<http://www.forcemeister.com/>
<http://www.linvio.com/>
<http://www.teamsupport.com/>
<http://www.callidussoftware.com/>
<http://www.cloud9analytics.com/>
<http://www.invisiblecrm.com/>
<http://www.landslide.com/>
<http://www.netprospex.com/>
<http://www.predictiveresponse.com/>
<http://www.spisales.com/>
<http://www.territoryplan.com/>
<http://www.ninthwavesolutions.com/>
<http://www.rumbleware.com/>
<http://www.ahasoftware.com/>
<http://www.exactship.com/>
<http://www.cloudconversion.com/>
<http://www.westcoastconsulting.com/>
<http://timedriver.timetrade.com/>
<http://forcebydesign.com/a/>
<http://www.insitusoftware.com/itools-delegated.php>
<http://www.ebiztech.com/>
<http://www.zoomerang.com/salesforce/>
<http://www.liveops.com/salesforce/>
<http://www.artesiansolutions.com/>
<http://www.emasys.com/>
<http://www.exari.com/>
<http://www.expensewatch.com/>
<http://www.incentiveprograms.com/>
<http://www.expensewire.com/>
<http://www.instant-service.com/>
<http://ink-a-note.com/>
<http://www.zoominfo.com/>
<http://www.saleslogistix.com/>
<http://www.saaspoint.com/>
<http://www.ilinc.com/>
<http://www.crystalreports.com/>
<http://www.marketo.com/>

<http://www.mastermindsoftware.com/>
<http://www.pivotlink.com/>
<http://www.kugamon.com/>
<http://www.cloudshare.com/>
<http://www.salesways.com/>
<http://www1.app-x.com/>
<http://www.zuora.com/>
<http://www.glovia.com/html/>
<http://www.rogueit.net/>
<http://www.contactual.com/>
<http://www.activalive.com/>
<http://www.springcm.com/>
<http://www.sendside.net/>
<http://www.chikpea.com/>
<http://www.thetasgroup.com/>
<http://www.financialforce.com/>
<http://www.ic-2000.com/>
<http://www.demandbase.com/>
<http://www.zenkraft.com/>
<http://www3.formassembly.com/pricing.php>
<http://www.funnelsource.com/>
<http://www.sharemethods.com/>
<http://www.interweave.biz/>
<http://www.radianscore.com/>
<http://www.xactlycorp.com/>
<https://www.timeclockonline.com/>
<http://www.drawloop.com/>
<http://dreamfactory.com/>
<http://www.millerheiman.com/>
<http://www.docuSign.com/>
<http://www.avankia.com/>
<http://www.cloud-craze.com/>
<http://coldcalling101.com/>
<http://jott.com/>
<http://www.activeprime.com/>
<http://www.cincomacquire.com/>
<http://www.m5net.com/>
<http://www.makanasolutions.com/>
<http://www.riptideforce.com/>
<http://www.varicent.com/>
<http://www.infowelders.com/>
<http://www.inin.com/Pages/default.aspx>
<http://www.etch.net/home/>

<http://www.gpsdashboard.com/home/home.jsp>
<http://www.go2group.com/display/theme/Home>
<http://www.bmt-business.co.il/cms/>
<http://www.ortoomail.com/>
<http://www.syntellect.com/pages/default.aspx>
<http://radialweb.com/>
<http://www.entransform.com/>
<http://www.perceptivesoftware.com/>
<http://www.docverify.com/>
<http://www.appynet.com/>
<http://www.open.collab.net/>
<http://www.visokio.com/>
<http://www.enecto.com/en/>
<http://www.mkpartners.com/>
<http://www.intelligencepartner.es/>
<http://www.advologix.com/>
<http://www.compiere.com/>
<http://www.timesheet.com/>
<http://www.payonomy.com/>
<http://www.mydbsync.com/>
<http://www.steadfastglobal.com/>
<http://www.virtrock.com/vrdrupal/>
<http://www.snapabug.com/>
<http://www.americandatacompany.com/>
<http://www.amctechnology.com/>
<http://www.incontact.com/>
<http://www.panterranetworks.com/>
<http://www.arrowpointe.com/>
<http://www.istrategicpartners.com/>
<http://www.myprivacyadvisor.com/>
<http://www.ihance.com/>
<http://us.intacct.com/>
<http://www.terralign.com/>
<http://www.echosign.com/>
<http://www.clicktools.com/sfdc/>
<http://www.bigmachines.com/>
<http://www.access-commerce.com/>
<http://www.4syndication.com/>
<http://www.kampyle.com/>
<http://community.qlikview.com/>
<http://www.gooddata.com/>
<http://www.accorto.com/>
<http://www.teravisiontech.com/>

<http://www.inetsoft.com/>
<http://www.managementscorecards.com/>
<http://www.roambi.com/>
<http://www.xactium.com/>
<http://www.santcorp.com/>
<http://www.postalmethods.com/>
<http://www.postcodeanywhere.co.uk/>
<http://www.enigma.com/>

Factor 9: Business Services

<http://aspiratech.net/>
<http://radialweb.com/>
<http://aetheroscrm.com/>
<http://www.solidcore.com/>
<http://www.arxxus.com/>
<http://www.kailea.com/>
<http://www.arcot.com/>
<https://www.myonelogin.com/>
<http://www.multifa.com/>
<http://www.conformity-inc.com/>
<http://www.pingidentity.com/>
<http://www.rallydev.com/>
<http://www.xobni.com/>
<http://www.samanage.com/>
<http://zipsearcher.com/>
<http://www.cyangate.com/>
<http://funnelsource.com/>
<http://www.deciphertech.com/>
<http://www.fairsail.com/>
<http://www.vendavo.com/>
<http://www.valgen.com/>
<http://www.leadlander.com/>
<https://www.cloud9analytics.com/>
<http://www.angoss.com/>
<http://www.postalmethods.com/>
<http://www.xactium.com/>
<http://www.roambi.com/>
<http://www.managementscorecards.com/>
<http://www.inetsoft.com/>
<http://www.teravisiontech.com/>

<http://www.accorto.com/>
<http://www.gooddata.com/>
<http://community.qlikview.com/>
<http://www.kampyle.com/>
<http://www.zymesolutions.com/>
<http://chapmanhq.com/>
<http://www.bceelix.com/ImpresarioWebSalesforce.asp?lng=1>
<http://www.8x8.com/>
<http://www.eway.com.au/>
<http://www.getsatisfaction.com/>
<http://www.modelmetrics.com/>
<http://www.insidesales.com/>
<http://www.saksoft.com/>
<http://www.x2od.com/>
<http://www.qcommission.com/>
<http://www.avendio.com/>
<http://www.complexsale.com/>
<http://success.territoryplan.com/>
<http://www.acfsolutions.com/>
<http://www.verticalresponse.com/>
<http://survey.timbasoftware.com/>
<http://info.helpstream.biz/HelpstreamCommunities.html>
<http://www.five9.com/>
<https://us.intacct.com/>
<https://www.mypeoplemaps.com/>
<http://enterprise.jigsaw.com/>
<http://www.faondemand.com/>
<http://www.kadient.com/>
<http://www.onesource.com/>
<http://www.ribbit.com/>
<http://www.right90.com/>
<http://www.teledirect.com/>
<http://www.webcominc.com/>
<http://www.qas.co.uk/index-a.htm>
<http://level5biz.com/default.aspx>
<http://www.targetrecruit.net/>
<http://www.projectorpsa.com/>
<https://curecrm.com/net/>
<http://www.attask.com/>
<https://www.expensify.com/>
<http://www.terafuel.com/>
<http://www.scoutsft.com/>
<http://www.forcemeister.com/>

<http://www.linvio.com/>
<http://www.teamsupport.com/>
<http://www.callidussoftware.com/>
<http://www.cloud9analytics.com/>
<http://www.invisiblecrm.com/>
<http://www.landslide.com/>
<http://www.netprospex.com/>
<http://www.predictiveresponse.com/>
<http://www.spisales.com/>
<http://www.territoryplan.com/>
<http://www.ninthwavesolutions.com/>
<http://www.rumbleware.com/>
<http://www.ahasoftware.com/>
<http://www.exactship.com/>
<http://www.cloudconversion.com/>
<http://www.westcoastconsulting.com/>
<http://timedriver.timetrade.com/>
<http://forcebydesign.com/a/>
<http://www.insitusoftware.com/itools-delegated.php>
<http://www.ebiztech.com/>
<http://www.zoomerang.com/salesforce/>
<http://www.liveops.com/salesforce/>
<http://www.artesiansolutions.com/>
<http://www.emasys.com/>
<http://www.exari.com/>
<http://www.expensewatch.com/>
<http://www.incentiveprograms.com/>
<http://www.expensewire.com/>
<http://www.instantservice.com/>
<http://ink-a-note.com/>
<http://www.zoominfo.com/>
<http://www.saleslogistix.com/>
<http://www.saaspoint.com/>
<http://www.ilinc.com/>
<http://www.crystalreports.com/>
<http://www.marketo.com/>
<http://www.mastermindsoftware.com/>
<http://www.pivotlink.com/>
<http://www.kugamon.com/>
<http://www.cloudshare.com/>
<http://www.salesways.com/>
<http://www1.app-x.com/>
<http://www.zuora.com/>

<http://www.glovia.com/html/>
<http://www.rogueit.net/>
<http://www.contactual.com/>
<http://www.activalive.com/>
<http://www.springcm.com/>
<http://www.sendside.net/>
<http://www.chikpea.com/>
<http://www.thetasgroup.com/>
<http://www.financialforce.com/>
<http://www.ic-2000.com/>
<http://www.demandbase.com/>
<http://www.zenkraft.com/>
<http://www3.formassembly.com/pricing.php>
<http://www.funnelsource.com/>
<http://www.sharemethods.com/>
<http://www.interweave.biz/>
<http://www.radianscore.com/>
<http://www.xactlycorp.com/>
<https://www.timeclockonline.com/>
<http://www.drawloop.com/>
<http://dreamfactory.com/>
<http://www.millerheiman.com/>
<http://www.docuSign.com/>
<http://www.avankia.com/>
<http://www.cloud-craze.com/>
<http://coldcalling101.com/>
<http://jott.com/>
<http://www.activeprime.com/>
<http://www.cincomacquire.com/>
<http://www.m5net.com/>
<http://www.makanasolutions.com/>
<http://www.riptideforce.com/>
<http://www.varicent.com/>
<http://www.infowelders.com/>
<http://www.inin.com/Pages/default.aspx>
<http://www.etch.net/home/>
<http://www.gpsdashboard.com/home/home.jsp>
<http://www.go2group.com/display/theme/Home>
<http://www.bmt-business.co.il/cms/>
<http://www.ortoemail.com/>
<http://www.syntellect.com/pages/default.aspx>
<http://www.entransform.com/>
<http://www.perceptivesoftware.com/>

<http://www.docverify.com/>
<http://www.appynet.com/>
<http://www.open.collab.net/>
<http://www.visokio.com/>
<http://www.enecto.com/en/>
<http://www.mkpartners.com/>
<http://www.intelligencepartner.es/>
<http://www.advologix.com/>
<http://www.compiere.com/>
<http://www.timesheet.com/>
<http://www.payonomy.com/>
<http://www.mydbsync.com/>
<http://www.steadfastglobal.com/>
<http://www.virtrock.com/vrdrupal/>
<http://www.snapabug.com/>
<http://www.americandatacompany.com/>
<http://www.amctechnology.com/>
<http://www.incontact.com/>
<http://www.panterranetworks.com/>
<http://www.arrowpointe.com/>
<http://www.istrategicpartners.com/>
<http://www.myprivacyadvisor.com/>
<http://www.ihance.com/>
<http://us.intacct.com/>
<http://www.terralign.com/>
<http://www.echosign.com/>
<http://www.clicktools.com/sfdc/>
<http://www.bigmachines.com/>
<http://www.access-commerce.com/>
<http://www.etherios.com/>
<http://www.4syndication.com/>
<http://www.vista-survey.com/>
<http://www.walkerinfo.com/>
<http://www.santcorp.com/>
<http://www.boldchat.com/>
<http://www.enigma.com/>
<http://www.postcodeanywhere.co.uk/>
<http://www.dreamfactory.com/>
<http://www.marketsync.com/>
<http://solutions.liveperson.com/>
<http://www.boomi.com/>

Factor 10: Data Management

<https://www.myonelogin.com/>
<http://www.solidcore.com/>
<http://www.arxxus.com/>
<http://www.rallydev.com/>
<http://www.arcot.com/>
<http://aspiratech.net/>
<http://www.conformity-inc.com/>
<http://www.samanage.com/>
<http://www.etherios.com/>
<http://www.kailea.com/>
<http://aetheroscrm.com/>
<http://www.xobni.com/>
<http://www.pingidentity.com/>
<http://www.multifa.com/>
<http://zipsearcher.com/>
<http://www.cyangate.com/>
<http://funnelsource.com/>
<http://www.deciphertech.com/>
<http://www.fairsail.com/>
<http://www.vendavo.com/>
<http://www.valgen.com/>
<http://www.leadlander.com/>
<https://www.cloud9analytics.com/>
<http://www.angoss.com/>
<http://www.postalmethods.com/>
<http://www.xactium.com/>
<http://www.roambi.com/>
<http://www.managementscorecards.com/>
<http://www.inetsoft.com/>
<http://www.teravisiontech.com/>
<http://www.accorto.com/>
<http://www.gooddata.com/>
<http://community.qlikview.com/>
<http://www.kampyle.com/>
<http://www.zymesolutions.com/>
<http://chapmanhq.com/>
<http://www.bceelix.com/ImpresarioWebSalesforce.asp?lng=1>
<http://www.8x8.com/>
<http://www.eway.com.au/>
<http://www.getsatisfaction.com/>

<http://www.modelmetrics.com/>
<http://www.insidesales.com/>
<http://www.saksoft.com/>
<http://www.x2od.com/>
<http://www.qcommission.com/>
<http://www.avendio.com/>
<http://www.complexsale.com/>
<http://success.territoryplan.com/>
<http://www.acfsolutions.com/>
<http://www.verticalresponse.com/>
<http://survey.timbasoftware.com/>
<http://info.helpstream.biz/HelpstreamCommunities.html>
<http://www.five9.com/>
<https://us.intacct.com/>
<https://www.mypeoplemaps.com/>
<http://enterprise.jigsaw.com/>
<http://www.faondemand.com/>
<http://www.kadient.com/>
<http://www.onesource.com/>
<http://www.ribbit.com/>
<http://www.right90.com/>
<http://www.teledirect.com/>
<http://www.webcominc.com/>
<http://www.qas.co.uk/index-a.htm>
<http://level5biz.com/default.aspx>
<http://www.targetrecruit.net/>
<http://www.projectorpsa.com/>
<https://curecrm.com/net/>
<http://www.attask.com/>
<https://www.expensify.com/>
<http://www.terafuel.com/>
<http://www.scoutsft.com/>
<http://www.forcemeister.com/>
<http://www.linvio.com/>
<http://www.teamsupport.com/>
<http://www.callidussoftware.com/>
<http://www.cloud9analytics.com/>
<http://www.invisiblecrm.com/>
<http://www.landslide.com/>
<http://www.netprospex.com/>
<http://www.predictiveresponse.com/>
<http://www.spisales.com/>
<http://www.territoryplan.com/>

<http://www.ninthwavesolutions.com/>
<http://www.rumbleware.com/>
<http://www.ahasoftware.com/>
<http://www.exactship.com/>
<http://www.cloudconversion.com/>
<http://www.westcoastconsulting.com/>
<http://timedriver.timetrade.com/>
<http://forcebydesign.com/a/>
<http://www.insitusoftware.com/itools-delegated.php>
<http://www.ebiztech.com/>
<http://www.zoomerang.com/salesforce/>
<http://www.liveops.com/salesforce/>
<http://www.artesiansolutions.com/>
<http://www.emasys.com/>
<http://www.exari.com/>
<http://www.expensewatch.com/>
<http://www.incentiveprograms.com/>
<http://www.expensewire.com/>
<http://www.instantservice.com/>
<http://ink-a-note.com/>
<http://www.zoominfo.com/>
<http://www.saleslogistix.com/>
<http://www.saaspoint.com/>
<http://www.ilinc.com/>
<http://www.crystalreports.com/>
<http://www.marketo.com/>
<http://www.mastermindsoftware.com/>
<http://www.pivotlink.com/>
<http://www.kugamon.com/>
<http://www.cloudshare.com/>
<http://www.salesways.com/>
<http://www1.app-x.com/>
<http://www.zuora.com/>
<http://www.glovia.com/html/>
<http://www.rogueit.net/>
<http://www.contactual.com/>
<http://www.acticalive.com/>
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<http://www.inin.com/Pages/default.aspx>
<http://www.etch.net/home/>
<http://www.gpsdashboard.com/home/home.jsp>
<http://www.go2group.com/display/theme/Home>
<http://www.bmt-business.co.il/cms/>
<http://www.ortoomail.com/>
<http://www.syntellect.com/pages/default.aspx>
<http://www.entransform.com/>
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<http://www.amctechnology.com/>
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<http://www.panterranetworks.com/>
<http://www.arrowpointe.com/>
<http://www.istrategicpartners.com/>
<http://www.myprivacyadvisor.com/>
<http://www.ihance.com/>
<http://us.intacct.com/>
<http://www.terralign.com/>
<http://www.echosign.com/>
<http://www.clicktools.com/sfdc/>
<http://www.bigmachines.com/>
<http://www.access-commerce.com/>
<http://radialweb.com/>
<http://www.4syndication.com/>
<http://www.vista-survey.com/>
<http://www.walkerinfo.com/>
<http://www.santcorp.com/>
<http://www.boldchat.com/>
<http://www.enigma.com/>
<http://www.postcodeanywhere.co.uk/>
<http://www.dreamfactory.com/>
<http://www.marketsync.com/>
<http://solutions.liveperson.com/>
<http://www.boomi.com/>
<http://www.insideview.com/>

Factor 11: Business Services

<http://www.marketo.com/index.php>
<http://www.zoomerang.com/salesforce/>
<http://www.genius.com/>
<http://www.8x8.com/>
<http://www.nurturemyleads.com/>
<http://www.eloqua.com/>

<http://www.contactual.com/>
<http://www.activeconversion.com/>
<http://www.panterranetworks.com/>
<http://www.incontact.com/>
<http://www.clicktools.com/sfdc/>
<http://www.five9.com/>
<http://www.insitusoftware.com/itools-delegated.php>
<http://www.salesfusion.com/>
<http://www.bceelix.com/ImpresarioWebSalesforce.asp?lng=1>
<http://www.instantservice.com/>
<http://www.etrigue.com/>
<http://www.liveops.com/salesforce/>
<http://www.genoo.com/>
<http://www.silverpop.com/>
<http://www.amctechnology.com/>
<http://www.treehousei.com/>
<http://www.conduitonline.com/>
<http://www.x2od.com/>
<http://www.maasimpact.com/>
<http://www.loopfuse.com/>
<http://www.ebiztech.com/>
<http://www.eway.com.au/>
<http://www.teamsupport.com/>
<http://www.insidesales.com/>
<http://www.americandatacompany.com/>
<http://www.strongmail.com/>
<http://www.demandresults.com/>
<http://www3.formassembly.com/pricing.php>
<http://www.emailvision.com/>
<http://forcebydesign.com/a/>
<http://www.3marketeters.com/>
<http://www.linvio.com/>
<http://www.aprimo.com/>
<http://www.ilinc.com/>
<http://www.getsatisfaction.com/>
<http://presentation.brainshark.com/>
<http://timedriver.timetrade.com/>
<http://www.realmagnet.com/>
<http://www.pardot.com/>
<http://www.forcemeister.com/>
<http://www.pagevester.com/en/>
<http://www.makesbridge.com/>
<http://www.mydbsync.com/>

<http://www.snapabug.com/>
<http://www.toucancrm.com/>
<http://www.printsf.com/>
<http://www.astadia.com/>
<http://survey.timbasoftware.com/>
<http://www.virtrock.com/vrdrupal/>
<http://info.helpstream.biz/HelpstreamCommunities.html>
<http://www.scoutsft.com/>
<http://www.rightoninteractive.com/>
<http://www.stratascopes.com/>
<http://www.payonomy.com/>
<http://www.zenkraft.com/>
<http://zipsearcher.com/>
<http://www.ihance.com/>
<http://www.solidcore.com/>
<http://www.greatvines.com/>

Factor 12: Marketing Campaigns

<http://www.nurturemyleads.com/>
<http://www.marketo.com/index.php>
<http://www.conduitonline.com/>
<http://www.treehousei.com/>
<http://www.genius.com/>
<http://www.salesfusion.com/>
<http://www.3marketeers.com/>
<http://www.maasimpact.com/>
<http://www.strongmail.com/>
<http://www.silverpop.com/>
<http://www.activeconversion.com/>
<http://www.loopfuse.com/>
<http://www.eloqua.com/>
<http://www.genoo.com/>
<http://www.emailvision.com/>
<http://www.aprimo.com/>
<http://www.etrigue.com/>
<http://www.realmagnet.com/>
<http://www.toucancrm.com/>
<http://www.pagevester.com/en/>
<http://www.demandresults.com/>
<http://presentation.brainshark.com/>

<http://www.printsf.com/>
<http://zipsearcher.com/>
<http://www.documentmall.com/salesforce/>
<http://www.pardot.com/>
<http://www.validar.com/>
<http://www.astadia.com/>
<http://www.cyangate.com/>
<http://www.greatvines.com/>
<http://www.walkerinfo.com/>
<http://www.fairsail.com/>
<http://www.boldchat.com/>
<http://www.stratascope.com/>
<http://www.rightoninteractive.com/>
<http://www.domodomain.com/>
<http://www.makesbridge.com/>
<http://www.boomi.com/>
<http://ondemand.magneticnorth.com/>
<http://www.marketsync.com/>
<http://www.crmfusion.com/>
<http://www.paretosystems.com/>
<http://www.boulderlogic.com/>
<http://www.lasso2go.com/>
<http://www.vista-survey.com/>
<https://www.mypeoplemaps.com/>
<http://www.cloud-craze.com/>
<http://www.clicktools.com/>

Factor 13: Lead Management

<http://www.marketo.com/index.php>
<http://www.eloqua.com/>
<http://www.salesfusion.com/>
<http://www.genius.com/>
<http://www.etrigue.com/>
<http://www.activeconversion.com/>
<http://www.silverpop.com/>
<http://www.nurturemyleads.com/>
<http://www.loopfuse.com/>
<http://www.treehousei.com/>
<http://www.makesbridge.com/>
<http://www.pardot.com/>

<http://www.genoo.com/>
<http://www.boldchat.com/>
<http://www.maasimpact.com/>
<http://www.kampyle.com/>

Factor 14: Project Execution

<http://www.attask.com/>
<http://www.saleslogistix.com/>
<http://www.open.collab.net/>
<http://dreamfactory.com/>