

148110



**T.C.  
YEDİTEPE ÜNİVERSİTESİ  
GRADUATE INSTITUTE OF SOCIAL SCIENCES**

**KNOWLEDGE MANAGEMENT WITHIN THE CONTEXT OF BUSINESS  
ORGANIZATIONS  
THE CASE OF FACTIVA**

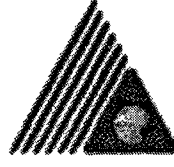
**by**

**Bahtiyar Ahu Hurşutağaoğlu**

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**Submitted to the Graduate Institute of Social Sciences  
In partial fulfillment of the requirements for the degree of  
Master of Arts  
in Public Relations and Publicity**

**İSTANBUL, 2004**



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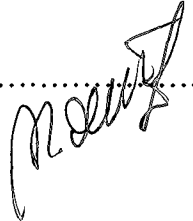
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## ABBREVIATIONS

KM: Knowledge Management

IT: Information Technologies

SAP: Selected Amateur Pilot

Project OWL: Orchestrating Wisdom and Learning

MAPI: Mail Application Interface Program

SGML: Standard Generalized Markup Language

HTML: Hyper Text Markup Language

PDF: Portable Document Format

CAL: Client Access License

EDI: Electronic Data Change

OS: Operating Systems

GUI: Graphic Use Interface

XML: Extensible Markup Language

FIITF: Factiva Intelligent Indexing Taxonomy Feed

FDK: Factiva Developer's Kit

W3C: World Wide Web Consortium

FP: Factiva Publisher

Soap: Simple Object Access Protocol



## ABSTRACT

In the recent years organization have faced with new challenges throughout the world. Together with globalization new markets have been opened and the existing markets have grown rapidly. Hence the need for knowledge has arisen very much. Organizations began to need more information about the markets, about their competitor, and also about other effective factors, which would influence their functioning throughout the world market. The need for knowledge is not solely tied to this change but organizations in order to become more competitive need to make developments and learn the needs and expectations of their customers. So this need became the second motive in the organizational search of knowledge. From this need of the organizations for more knowledge and information the Knowledge Management has emerged. Nowadays many organizations regard knowledge and information as valuable assets of their organizations and apply programs within their organizations to organize the flow of knowledge. But organizations do not possess all the necessary tools to continue such programs and they get help from outer sources. These sources are mainly the firms that deal with developing the tools and technology necessary to search, identify, gather, categories, and deliver knowledge.

So these studies mainly deal with two subjects. First of these subjects is knowledge and Knowledge Management. To this aim a literature survey has been presented in the first part. The second part deals with the organizations, which have the expertise of producing technological Knowledge Management tools. So in the second part of this study Factiva, a technology producing firm working in the field of Knowledge Management, is analyzed.

Key Words: Knowledge, Organizational Culture, Knowledge Management, Web-based Technology, Organizational Learning

## ÖZET

Organizasyonlar son yıllarda tüm dünyada büyük değişikliklerle yüz yüze geldiler. Globalizasyonla beraber yeni pazarlar açıldı ve varolan pazarlarda hızlı biçimde büyüdüler. Böylece bilgiye duyulan ihtiyaç çok fazla arttı. Organizasyonlar pazarlar, rakipleri, ve dünya pazarlarındaki işleyişlerinin etkileyebilecek diğer faktörler hakkında daha fazla bilgiye ihtiyaç duyar oldular. Bilgiye duyulan bu ihtiyaç sadece bu değişikliklere bağlı değil, ancak organizasyonlar daha rekabetçi hale gelebilmek için yenilikler yapmalı ve müşterilerinin ihtiyaç ve beklentilerini öğrenmelidirler. Organizasyonların daha fazla bilgiye ihtiyaç duymalarından Bilgi Yönetimi ortaya çıktı. Bu günlerde bir çok organizasyon bilgi ve informasyonu organizasyonlarının değerli bir varlığı olarak görmektedirler ve organizasyonlarında bilgi akışını düzenleyecek programlar uygulamaktadırlar. Ancak organizasyonlar bunun için gerekli tüm araçlara sahip değiller ve dışsal kaynaklardan yardım alıyorlar. Bu kaynaklar esas olarak bilgi aramak, tespit etmek, toplamak, sınıflamak, ve dağıtmak için gerekli araç ve teknolojileri geliştiren firmalardır.

Bu bakımdan bu çalışma iki ana konuya değinmektedir. Bu konulardan birincisi bilgi ve Bilgi Yönetimi'dir. Bu amaçla ilk bölümde bir literatür taraması sunulmuştur. İkinci kısım da ise Bilgi Yönetimi araçları geliştiren organizasyonlara değinilmektedir. Bu bakımdan ikinci kısımda Bilgi Yönetimi alanında teknoloji üreten bir firma olan Factiva analiz edilmiştir.

Anahtar Sözcükler: Bilgi, Kurumsal Kültür, Bilgi Yönetimi, Web-tabanlı Teknoloji , Kurumsal Öğrenme

# 1. INTRODUCTION

As the business environments change rapidly in today's global market the need for knowledge of organizations also increases. Organizations have an increasing need for knowledge and information about the worldwide markets, about their competitor firms, about the customers and their expectations. Knowledge and information are also needed to adapt the newly emerging technologies, to enhance the business processes and to utilize more updated work processes. So organizations need to provide their employees the necessary tools to obtain the necessary and crucial knowledge and information. So Knowledge Management procedures have become an important tool for organizations to reach their goals.

Several firms have emerged who deal with developing the necessary tools for KM programs. These new tools mostly are composed of IT tools, such as Web sites, search tools, customized and specialized search tools, Internet portals that deliver news and other business data for the improvement of the organizational processes. Other than these tools there are other programs that deal with learning and e-learning. This Knowledge Organization develops and offer such tools and programs too. They help the firms to create a new, and knowledge-based culture, help the firms to make knowledge and information as an essential part of their work processes. E-learning tools and programs that are offered by these organizations have proven to be very effective in enhancing the business processes, in improving these processes and in increasing productivity. They are less costly than the traditional learning methods and the learning materials are easily accessible via the Web.

Knowledge is becoming a more important asset of organizations. The application of extensive KM programs by business organizations, the establishment of new technologies and tools all reveal this fact. At the present time these KM programs and the development of KM tools are at their infancy but even at this stage they have proven to be crucial for the operations of many business firms. So the future trend of business organizations is to develop more efficient KM programs. Hence the trend for the KM technology firms has become to create more efficient and specific-task oriented tools. At this new century knowledge will create many differences in the shape of the market. The possession of knowledge or the accession to it will determine the positions of the business firms and even will determine which firms will survive. Hence the firms will struggle to become more close to knowledge and to the necessary sources.

## ***1.1 Hypothesis***

Knowledge is becoming a more important asset of organizations. The application of extensive KM programs by business organizations, the establishment of new technologies and tools all reveal this fact. At the present time these KM programs and the development of KM tools are at their infancy but even at this stage they have proven to be crucial for the operations of many business firms. So the future trend of business organizations is to develop more efficient KM programs. Hence the trend for the KM technology firms has become to create more efficient and specific-task oriented tools. At this new century knowledge will create many differences in the shape of the market. The possession of knowledge or the accession to it will determine the positions of the business firms and even will determine which firms will survive. Hence the firms will struggle to come close to knowledge and to the necessary sources. In this study the aim is to show that Knowledge Management is becoming a crucial part of the organizational operations and for this reason firms have begun to search for more specialized and professional tools and KM programs. So the firms that operate in the field of KM now produce many new KM tools and offer more specialized solutions and in the future the number and quality of these tools will be increased along with their importance for the economy and the functioning of the organizations.

## ***1.2 Methodology***

This study consists of two main parts. The first part deals with knowledge and KM theoretically and the second part deals with the KM policies, practices, programs, and technologies that have been developed by a specific firm the Factiva. Factiva is a firm that operates in the field of Knowledge Management and produces technological tools for the firms in order to help them arrange their Knowledge databases and enhance their search facilities.

So in the first part of the study a literature survey is conducted. To this aim initially the definition of the key concepts is given. These key concepts are knowledge, information, data, and knowledge management, knowledge management technologies. All of these key concepts have been studied thoroughly with reference to the works in literature. In this context the importance of knowledge for the economy is emphasized. For the first part of the survey different knowledge management programs that have been

conducted by different firms in order to enhance their KM has been also studied and examples are given.

In the second part of the study Factiva a firm that operates in the field of Knowledge Management is studied extensively. To this aim initially the Knowledge Management concept is analyzed from the viewpoint of the Factiva itself. To this aim the main KM tool such as data gathering, searching, content of the web sites etc have been studied. After this the Knowledge Management practices of Factiva have been analyzed in detail. Several case studies have been studies to this aim and these case studies consisted of Factiva and its client firms to which Factiva has offered KM tools and programs. In the last part of the study the tools that have been developed by the firm Factiva has been studied.



## 2. KNOWLEDGE MANAGEMENT

Prior to the explanation of Knowledge Management we have to first define the term 'knowledge' and clearly determine its boundaries. Knowledge is a very widely used term and is common to us all. Throughout of our education we deal with learning and this learning process has much to do with knowledge. While learning a subject we increase our knowledge on that subject and the learning process is comprised of this activity. So what is knowledge?

The Webster's Dictionary defines knowledge as "the fact or condition of knowing something with many familiarity gained through experience or association". As the definition suggests knowledge is gained through experience or association. Experience is the earliest form of gathering information on something and the process of gathering experience is as old as humanity. Most of our knowledge is gathered through the development process of the humanity. But this gathering of experience is not the sole source of knowledge. Research making is another tool that we use in order to increase our knowledge on something. As sufficient amount of experience is gathered on a subject the scientist conducts deeper investigations on the subject to combine this experience with scientific information. As we know from the positive sciences much new information is obtained and many new materials are created through the researches of the scientists. At this point as we talk about information the relations of knowledge and information and knowledge and data should also be given.

Data is defined as "the objective facts describing an event without any judgment perspective, or context" (Huseman & Goodman, 1999) and are usually about reality or other data (Acharya, 2003). Information is defined as "knowledge communicated or received concerning some fact or circumstance" (American College Dictionary, 1968) Both data and information are mistakenly used for knowledge but they are different than knowledge. Information is meaningful, conceptualized data ready to be used but it is not knowledge yet (Acharya, 2003). Information is simply the news that we learn through TV, radio and other mediums and it is mostly changing. It is not reliable in most cases, so it is highly source dependent. Information transmission is done at high speeds but knowledge cannot be transmitted at such high speeds because knowledge should be remembered for further use but information should not be remembered and learned for future use.

Knowledge has some characteristics, which separates it from data and information. These characteristics can be stated as the experience, truth, judgment, intuition, and values (Huseman & Goodman, 1999). Experience is an important tool in gathering knowledge on a subject as people conduct investigations on it to clearly grasp its essence and its characteristics. Experience establishes a bridge between the past and the present and future times (Huseman & Goodman, 1999). Being experienced means possessing knowledge on any subject. Truth or reliability is the second important characteristics of knowledge, which separates it from information (Denning, 2000). Knowledge carries humans true and reliable information on the way things are and work (Huseman & Goodman, 1999). On this information humans further work and create other things or try to intervene with this working process (Acharya, 2003). We may imagine a scientist working in the laboratory. S/he tries to use certain characteristics of elements to create new formulas with new functions. This information about the elements used at the laboratory comprises his/her knowledge about the elements. This information on the elements or on any other subject has some real basis and the scientist cannot work on speculations. So knowledge is meaningful, has significance and is objective, it does not change from person to person (Acharya, 2003). Even though this is so and knowledge does not change from person to person it provides humans with some freedom to make judgment or to use their intellect on it. Through the use of our judgment capacities we can make sensible decision in the situations that we are confronted with (Huseman & Goodman, 1999). Only knowledge allows us to make these good judgments. In this respect knowledge is something that can be socialized. It can be shared and applied by other humans (Acharya, 2003). Intuition is a trait of humans that is gained and increased through experience and knowledge. Intuition is the decision-making capacity of humans. This capacity is developed through trial and error procedures. Intuition guides professionals in cases where their information is not sufficient. In these cases knowledge and experience helps humans to use their intuitive senses (Huseman & Goodman, 1999). Values are the last characteristics of knowledge that we would be dealing with. Knowledge increases our capacities and with that our responsibilities. We as humans think and act in the world with our values and our worldview. Our worldview is created with the help of our beliefs and our information about the reality so as this information changes with knowledge our values change too

(Acharya, 2003). It is therefore necessary here to deal with the types of the knowledge or with types of images of knowledge.

There have been five different types of images of knowledge identified by the researches. These five types are as follows: the embodied, embedded, embrained, encultured, and encoded (Blackler, et.al in von Krogh, et.al., 2000:70). The embodied knowledge comprises of the knowledge of the expert craftsperson of an organization. This type of knowledge is also called as 'know how'. Embodied knowledge depends on the physical presence of the owner and is acquired by doing. But it is further stated by researches that the machine systems have more importance than their knowledge. The embedded type of knowledge resides in the systemic routines of the organizations. It is the sum of the technologies, roles, formal procedures, and emergent routines of the organizations. Embedded knowledge is mostly related with the conceptual skills and the cognitive abilities of the organizations. This type of knowledge is not capable of performing routine tasks but is capable of developing complex rules. "Embrained knowledge refers to that type of knowledge that depends on the cognitive abilities, which allow of the recognition of underlying patterns, the reflection of basic assumptions, and 'double loop learning'" (Blackler, et.al in von Krogh, et.al.,2000:48). Encultured knowledge is the process of achieving shared understanding. It refers to the cultural system of an organization. Encoded knowledge is the information that is transmitted though the signs and symbols. Books, manuals and codes of practices are the former examples of the encoded knowledge.

As it is suggested with the definition of knowledge it is much related with experience and with the way things function. Other than the individuals who deal knowledge organization do use and gather knowledge too. This knowledge is about the functioning processes of the organizations and about the subject on which they work. So organizations acquire, gather, create and share knowledge. The whole process of this acquiring, gathering, creating and sharing is defined as 'the management of knowledge' (Scarborough et.al., 1999, 1).

There are some suggestions in the literature to change the term 'knowledge management' with that of 'knowledge sharing' which more precisely explains the situation and the activities that are referred to with the term 'knowledge management' (Denning, 2000). Many people are engaged in the management process of knowledge and these are



teachers, philosophers, priests, politicians, scribes, scientists, managers of the organizations etc. (Newman, 1991) The aims of knowledge management in the organizations are to enhance the learning and the functioning capabilities of the organizations and in this way to increase the its performance. The need for knowledge management arises due to several reasons. Most of the professional work relies growingly on knowledge. Scientist need more information to learn more about how things function and to make the necessary developments for a firm, which operates in a highly competitive environment. The available time to experience and acquire knowledge has been diminished with the increase of the competitiveness of the work environment. The working staff of a firm needs time to acquire the necessary knowledge. The most experienced ones retire in time and the firms loose their qualified personnel. Complexity of the firms has increased with the innovations done in the industrial arena. Firms and individuals have a need to make the learning a life-long process (Macintosh, 1995). The companies should protect the knowledge of the organization and should make it independent from persons. Hence continuity has an importance on the success of the companies. In order to protect their ideas and knowledge firms use patents and trademarks. In this way their ideas are protected against the rival firms and they can gain from their ideas continually (Blackler, et.al in von Krogh, et.al.,2000:12).

Change is another source of depreciation of knowledge and change is also related with continuity. It can foster continuity or it can stop it. Organizations mostly have research and development department, which deal with the issues of change and with the innovations that have been done in their specific field. So learning is an important tool used by the organizations in managing knowledge. Organizations use both individual and collective learning processes in order to increase the capacities of their personnel and to catch the changing market trend. But since knowledge is something intangible it should be measured first. In order to increase the effectiveness of the learning process and the commitment to learning managers utilize some tools to increase the motivation of their personnel because motivation influences commitment and commitment in turn influences learning. If motivation increases than the commitment of the personnel would increase and measurements would be performed with more ease. Fear and rewarding systems are used to increase the commitment of the personnel (Blackler, et.al in von Krogh, et.al.,2000:22).

## ***2.1 A Brief Overview and Historical Development of Knowledge Organizations***

The big typed industrial organizations have begun to appear in the arena as late as 1850s. These organizations have been the basic types on which today's more mature organization have been established. In the old ages when the transportation and communication was not as developed the firms could not become as big as today's firms. This was impossible for several reasons. As mentioned transportation and communication are the two major ones. The goods of firms could not be transported to distant places and due to this firms could not operate there. Other than this, the branches of firms that are to be operated in distant places could not be as easily controlled by the managers of the company, who were the owners of the company in most cases. So the firms had a local character and the competition could be conducted only locally. Firms had a hierarchic character and the branches were controlled and managed by the managers at the head office of the firms (Huseman & Goodman, 1999). As transportation and communication developed the goods could be transported to far places. With the ease of transportation the age of mass production began. Some firms sought ways to produce goods for the whole public to which they could access through transportation. Big firms began to establish branches and factories in other places of a country, especially in America.

Firms already had the knowledge of producing goods and operating the firms. But the new type of production changed their inner managerial structure and knowledge. The hierarchic and one centered type of managerial structure did not suffice and the firms began to produce managerial stuff or what is called in the 60s the 'organizational man' (Huseman & Goodman, 1999). Other than this the number of skilled personnel that a company needed increased. This further increased the production costs of the companies and the companies began to apply scientific ways of management. Since the knowledge of the workers was the property of the company companies began to teach more technology to their personnel. In this way they sought to increase the performance of a worker by combining some tasks that have been performed by different personnel. As these tasks are combined together some qualified workers have been laid off to reduce the costs of

production. These actions of the firms are the first examples in the field of knowledge management.

The two major forces behind the change strategy of any company have been the competition and the information technology. Competition has two source; one national the other international. As transportation problems have been solved the firms could reach anywhere within their country and even in the world. The international competition has been very important than that of the national competition because via the international competition the firms have encountered with different technologies and organizational cultures than their own. A very common example can be given from the automotive sector. In this field three different powers exist in the American market. The first one is the America's automotive sector, the second the Japanese and the third the European automotive companies. In the automotive sector the Japanese system was more perfect than the other two and hence the Japanese even won the war of competition through their excellent and overwhelming knowledge of production and management against the Americans. So the American economy experienced the first trade deficit in the twentieth century due to this reason.

As in the example this and other events lead the firms to think about their know-how and about increasing this know-how to catch the transition that is brought to them by foreign competition

In the recent decades the organizations that are widely known as the knowledge organizations began to appear. These knowledge organizations have shared some common traits and these traits can be stated as follows: a knowledge organization values and acknowledges knowledge as its primary competitive advantage, it encourages continual learning and it actively manages its intellectual capital.

Let us examine these traits more closely. The managers of these organizations should recognize and respect the knowledge that their employees and their organization have. They should help the process of accumulation and learning of knowledge. They should be able to create knowledge through experimentation or import knowledge through outer sources. Through continual learning the knowledge of the organization is checked against depreciation and change. Because knowledge also changes in time as innovations are made in the sciences. So the companies should provide their personnel continual learning in order to not to utilize the old fashioned technologies insistently. So many

companies put forward many reward systems in order to motivate their employees in the learning process and in order to keep the issue always fresh at their minds. These learning processes are conducted either in company with a private teaching firm or mostly in company with a near university in the city. The learning process usually grasps all of the departments in an organization such as the manufacturing, retail/wholesale, services, and transportation departments (Huseman & Goodman, 1999:147).

Managing their intellectual capital is the last trait of a knowledge organization and this process has many aspects. It comprises of generating knowledge, measuring knowledge, and of allocating knowledge. To generate knowledge the organizations utilize the knowledge of their employees. Hence the employees describe what they know about the working process and these are recorded. Other than this qualified personnel teams also try to make innovations in the working processes of the firms. Measuring knowledge is harder than generating knowledge and many of the companies lack a knowledge measurement system. Knowledge allocation is the sharing of necessary and meaningful knowledge among the employees. The experiences and the ideas of all the employees are listened to. An example from the General Electric Company is as follows: the company was trying to solve a problem where a new unit of machinery was needed and all of the employees were asked to present their ideas about the matter. A unit designed by an hourly worker was chosen and it saved the company \$80000 (Huseman & Goodman, 1999:148). This example clearly shows the importance of trusting the knowledge of the employees of the company not regarding of their statuses and their education.

## ***2.2 Emergence and Growth of Knowledge Economy***

As stated earlier knowledge is becoming more and more important on the operations of the organizations. The tasks to be performed are getting more knowledge based and complex. In their working process the firms produce knowledge too. So knowledge is one of the assets that the firm possesses. Firms protect their knowledge by taking the patent and the trademarks. The most recent examples of these knowledge-based firms are the computer software firms who produce several package solutions to many organizations. With this changing era knowledge has become valuable and many companies begun to work solely on producing knowledge and knowledge-based products.

Competition has been very important among these firms. Developing new technologies in the computer sector can leave some firms out of the market and can make create some new big-revenued firms, which can earn up to a several billion dollars a year. IBM is a company that was established in the 60s and the company has been the leading one in this field for many years. But as the technology has changed and many new technologies have been found the market share of IBM has began to decrease. They could not catch the trend of the market by making the necessary innovation and have become an old fashioned company. Even though they still have the major share in the market the trends are against them and they loose the market to new companies. The Microsoft Company is the new leader in this filed and it is increasing its share. The causes of the withdrawal of IBM are several and have much to do with knowledge management. They could not catch the trends by developing new products that are valuable in the market but solely relied on their older products (Huseman & Goodman, 1999).

Knowledge gives the firms a competitive advantage. As the IBM of the 60s or the Microsoft of the 80s and 90s firms produce goods that are highly knowledge-based and through taking the trademarks of their products they create a new market, which is solely dependent on them. The entrance of other firms into such markets is not easy in all cases; either the new firm should create a totally new product or it should make a very big innovation. But creating new products or making innovations is not easy but is very expensive. The big firms spend billions of dollars to enhance their technologies and to perfect it. So the big firms hold the competitive advantage in these areas.

As knowledge has become so important the knowledge stealing began to be seen among the firms. An example has been stated by Huseman & Goodman (1999:124). Dow chemical company is producing plastic goods that are used in the automotive sector and the General Motors Company is a consumer of these goods. But as the General Motors Company was lacking the technology to produce plastics parts they hired away 14 top engineers from the Dow Company. These engineers have been working in the General Motors Company to develop such a plastic part producing technology with the knowledge that they have gathered in the Dow Company. But the plan did not work because the Dow Company have found out that General Motors Co. was trying to build a 'mini-Dow' in their factory. In this case the knowledge of plastics parts technology was the property of Dow Chemicals but General Motors violated the trademarks laws by using their

technology by recruiting engineers from the Dow Group and in this way they committed a big crime. Firms, especially as in this case are dependent on the knowledge and specialization of other firms and this is an inescapable truth. The technology of another firm can be disguised by another firm as in this case by recruiting some high-qualified personnel from the other firm but there are the laws that protect the rights of the firms. The technology of other firms cannot be used by other firms without taking any permission from the owner firm and recruiting is not a solution to this problem.

### ***2.3 The Changing Workplace and Knowledge Management***

As the economy gets more industrialized the tasks in the workplace also got more complex. In this complex workplace some organizations tried to create their work knowledge of their own which depends on their experience in the area they work. Some tasks have been combined together and this lead to the unification of some departments in the organizations. This strategy was mainly used in organizations which try to reduce the costs of production but the reductions of the costs were not the sole reason and in many instances the innovations led to these unifications. Some departments have been totally shut down and were replaced with new departments using new technologies. As knowledge increased the work has become more and more divided within different professions and more than one professional is needed to solve a problem in one unit. Such as the case in the pharmacology firms; Biologists, chemists, chemical engineers and pharmacists work together in the same manufacturing department and are responsible on performing different tasks each of which needs the knowledge of a different profession. The cause of this can be explained using the systems theory which suggests that as the systems become more complex they become less stable.

The managers in such organizations should develop and create new knowledge through debate and dialogues with others and they should try to involve them in the process of management of change. In the knowledge-oriented organizations or organizations that depend on knowledge the old forms of managerial systems does not suffice and the qualified workers shift away from hierarchy and try to create a self-managing working team. So there is a trend to the multi-disciplinary working environment and many of the knowledge-based creations are the result of these multi-disciplinary teams. The cause of this is several. First the knowledge within a discipline does not suffice

to solve the problem because the tasks have become complex. Second, all of the organizations possess high-qualified personnel. But these new multi-disciplinary teams are not easy to arrange. Tension within a multi-disciplinary team exceed that of the other teams and the different members of the team have encountered problems in identifying themselves as a member of the team because there were no commonly shared experience among the members of the team (Blackler, et.al in von Krogh, et.al.,2000:81). As the organizations change learning has become an important tool. Learning has close relations with the organizational culture. The managers of a company should seek to generate and foster the ideas of learning and try to make this aspect a part of the organizational culture. But there are some points to consider. First the learning must be meaningful and it should not be conducted for the sake of itself. Especially in organizations functional learning is important and the company is very different than the school. People or the employees cannot choose their topics to learn but they should educate themselves in their fields of specialization. Possibly they cannot change their field of specialization and find themselves another place in the company. So learning should not be confused with employee rotation; it does not function on the basis of rotation. Secondly the demand for learning should come from within the group of employees and the employees should decide on their deficiencies. A top-down and obligatory learning session would not be effective and the commitment of the employees would be low. The managers before attempting to initiate a learning process should consult with their employees and take their consent on the topics to be learned so that the learning process would not bother anyone.

#### ***2.4 Knowledge Management and Business Environment***

There has been a tremendous change in the working environment of the organizations since the 1950s. The national and the international markets have become more competitive and technology has been changed drastically with the increase of knowledge. The old styles of managing competition have become unsuccessful. In the 1950s and before the major managerial term was the 'status quo' and managers struggled to maintain the 'status quo'. But in the next decades the terminology has changed with the increase of emphasize on change, innovation, and development (Huseman & Goodman, 1999, p. 41). Organizations are activity systems as suggested by Blackler, et.al (in von Krogh, et.al.,2000:70) and activity systems tend to produce tension due to their working

environment. So there may appear some inconsistencies, incoherencies, paradoxes, and contradictions within and between them. As the complexity of the system increases and changes began to be seen very frequently then these tensions would increase. Firms and managers had to produce several strategies to survive. Three reactions against the changes have been mainly utilized by the firms. These are realignment, restructure, and reduction.

The initial way of survival for the small firms was to establish mergers and acquisitions. Through these actions the small firms could gather a pool of capital, increase efficiency and decrease competition among themselves. So companies acquired different companies working in totally different fields in order to gain power and become competitive. But the mergers have affected many working people's lives because they were very widely utilized by the companies. Restructuring is the second strategy against the competition and change. This strategy is related with reengineering of the operation principles of the companies and the outline of restructuring is as follows: first the firms ask questions to find out how their organizations operate. Then the old way of operation systems are replaced with the new and more efficient ones. Lastly they change their processes of operation at every step of their organization. Downsizing is the last strategy to deal with. This is the simplest one of the three and the firm reduces its personnel to decrease the costs and operates with optimum levels of personnel.

#### ***2.4.1 Knowledge and Business Needs***

Firms do not work in the same environment everywhere. As the products and working environments of firms change their needs and perspectives changes too. Due to these changes variations occur in the management of knowledge between firms. Some firms make use of technology to capture, handle and locate knowledge (Wiig in Liebowitz, 1999, p. 3.1). Some firms prefer to conduct knowledge management focusing on the human factor. In such firms knowledge is either shared among individuals or complex educational and knowledge distribution structures are built. Some firms create environments to make their employees more creative and innovative. In dealing with the varieties of knowledge management Taylor (2000) differentiates between three types of knowledge management initiatives. These are, organization-wide strategic reviews, which lead to a full implementation strategy, task, process, function or team-specific analysis and design projects, and projects that address individual aspects in isolation, such as people,



process and technology aspects (Taylor, 2000, <http://ourworld.compuserve.com>). Huseman and Goodman further illustrate this situation with an example of four different organizations (Huseman, and Goodman, 1999, 154). Each of the organizations operates in a different sector. The sectors of these organizations are: manufacturing, finance/insurance, services, and retail/wholesale. First of all the employee number of the companies varies very much and this influences their training budgets. Two of these companies have corporate universities and the employees are trained in these universities. In these universities both training with computers and training in the classrooms is being utilized. But computer usage in training has an increasing tendency. All of the companies outsource much of their training. Three of these four companies see MBA degree extremely valuable and only the fourth company does not consider MBA as a valuable degree (Huseman, and Goodman, 1999, 154). The management approaches of the companies coincide only at two points and these are: 80% to 95% of the training hours are spent in training the non-management personnel, and the coverage of the training topics.

The need for utilizing knowledge management aroused out of four reasons in Ernst & Young. These four reasons are as follows: growth, cost and speed to market, customer satisfaction, and learning curve (Harkins et al., 2000, p.5). Ernst & Young needed to accelerate the development of new products and services. This they wanted to do especially in the area of e-commerce. In addition to this the company wanted to replace commodity services and increase growth. The second motive of utilizing KM practices was to reduce the cost of sales and to reduce the time to prepare deliverables. The turnover rate is high in the sector in which Ernst & Young operated. So the company had to offer its people access to learning materials and knowledge that would make them proficient in short times and that would make them productive in new practice areas. But in the process of application of KM practice the company had faced with three difficulties. These difficulties can be stated as: the desire for control, practice autonomy, and no knowledge culture. The existing KM personnel (librarians, researchers, analysts, competitive intelligence experts, database managers) in the company. The existing KM practitioners of the firms had their own autonomy and this would make it difficult introducing new KM practices and processes rapidly, consistently, and globally. Prior to the introduction of the KM processes the company had undergone another big change about sales operation.

A new Sales Culture was introduced to the company hence the employees of the company had no appetite for another change program (Harkins et al., 2000, p. 5).

The company Hewlett Packard realized the need for change in 1995 (Harkins et al., 2000, p. 28). Increasing the efficiency of knowledge management became important due to several reasons. These are: meeting customer expectations for innovation, rapid execution, and global consistency. To this aim the companies create initially a small team to interview the clients in order to identify the effectiveness of the company at leveraging internal knowledge and transfer it to client teams. The client feedback important insights to the company. So it was found that KM would not only help the company become more productive but that it was essential to client satisfaction.

AT&T is another company that has utilized KM processes to enhance its business. The challenge came due to competitor firms, technology changes, and market share erosion. The Sales and Marketing group of the company faced with difficulties in supporting the Business Services sales associates (Harkins et al., 2000, p. 62). So a need for change aroused. The company needed to shift the sales focus towards the new technology markets. The leadership team needed a way to drive the change throughout the big organization and they also needed to ensure that a uniform message was being delivered to all associates so that they can effectively compete in the rapidly changing business environment (Harkins et al., 2000, p. 62).

The need for KM practices in the World Bank aroused out of several reasons. The main reason for the utilization of these processes is that KM is gaining importance economically. So KM is considered as a part of the ongoing development processes. These development processes consist not only of transfer of financial resources and knowledge from rich countries to the poor but it includes also fostering the learning communities and networks who will have an opportunity to access and share knowledge (Harkins et al., 2000, p. 130).

The need of utilizing KM practices focused on three issues in the Buckman Lab Co. These issues were:

- The need for communication amongst the distant associates of an international company as Buckman Lab.
- The need for communication 24 hours at 7 days a week among the associates who were rarely in their offices.

- The need to increase the speed of innovation.

So the company began its KM processes to satisfy these three needs of the company associates (Harkins et al., 2000, p. 170).

#### **2.4.1.1 Selection of Knowledge**

In order to analyze the variations in knowledge management technologies initially the knowledge selection activity should be defined and analyzed. Selection of knowledge is related with identifying knowledge within the existing resources of the organization. Then the selected knowledge is used or internalized (Holsapple and Joshi in Liebowitz, 1999, p.7.4). Internalizations refer to the activity in which the selected or acquired knowledge is allowed to flow within the system of the organization. Using refers to the activity in which the selected or acquired knowledge is applied in order to generate new knowledge (Holsapple and Joshi in Liebowitz, 1999, p.7.4). Only through the selection activity can the other activities function and interact with each other hence the selection activity has a vital importance in organizations. Knowledge selection can be performed either by certain individuals or by multiple participants. The selection activity consists of four sub-activities (Holsapple and Joshi in Liebowitz, 1999, p.7.5). These sub-activities can be given as identifying, capturing, organizing and transferring of knowledge.

##### **2.4.1.1.1 Identifying**

Identifying further consists of four different activities, which are locating, accessing, valuing, and filtering. First the knowledge is located within the given resource. If multiple knowledge is identified than depending on the value of these different knowledge the information is accessed after the unwanted ones have been determined (Holsapple and Joshi in Liebowitz, 1999, p.7.5).

##### **2.4.1.1.2 Capturing**

Capturing consists of retrieving and gathering/collecting the desired knowledge. As soon as knowledge is identified within the resource it is then extracted. Different types of knowledge, such as the knowledge from an employee or knowledge from a computer system, are captured differently. If knowledge is to be capture from different resources

then collection or gathering are from these resources are done (Holsapple and Joshi in Liebowitz, 1999, p.7.5).

#### **2.4.1.1.3 Organizing**

Organizing involves distilling, refining, assembling, transforming, orienting, packaging, and interpreting of knowledge. Distilling, refining, assembling, and transforming are related to the content of the knowledge. Orienting and packaging are related to its appearance (Holsapple and Joshi in Liebowitz, 1999, p.7.6).

#### **2.4.1.1.4 Transferring**

Transferring involves identifying the channels, choosing the channels, scheduling, and sending. The medium for knowledge flow are identified. Then one or more of the identified channels are chosen for usage. The last step consists of scheduling and sending the knowledge through these channels (Holsapple and Joshi in Liebowitz, 1999, p.7.6).

### **2.4.1.2 Role of Different KM Programs**

As said earlier different organizations use different types of KM programs. Here these different approaches are to be analyzed. The topics are the Organizational Learning, Work Design, and Information Technology but only the former two topics will be analyzed here and the last one will be analyzed later.

#### **2.4.1.2.1 Organizational Learning**

As the organizations face with stronger market competition of other firms in the market the need of maximizing the use of 'human capital' arises (Sena and Shani in Liebowitz,1999, p.8.9). The activity, principles, processes and structures arising out of this need arises the concept of organizational learning process. The basic principle of organizational learning is to transform individualized learning into organizational learning. The knowledge of the organization consists of the learning and experiences of the individuals throughout the company, the customers, and the stakeholders (Liebowitz, 2000, p.31). The idea originates from the concept of a 'learning organization'. In a learning organization the capacity to

learn, adapt, and change are enhanced. The essences of learning organizations are as follows:

- Learning is constant process hence the knowledge constantly flows across the organization. The learning process is turned into a routine process in the organization.
- Knowledge is generated and shared to be easily used by all the employees in times of when a need arises.
- Critical thinking is encouraged to foster innovations.
- Create a learning culture with the use of reward and promotion system.
- Make employees freer by allowing them to take risks, to make experiments, and to use and explore new ideas.
- Development of the individual is supported hence the system is human-centered (Liebowitz, 2000, 32).

Four types of learning are possible in organizations. These are the individual learning, team learning, organization learning, and customer learning. Individual learning is the process in which the role and the responsibilities of the individual are emphasized. Team learning focuses on teams rather than on individuals. Organization learning is the process where learning experience is shared by different teams. All of the teams take their place in a big network of learning. Customer learning is the process in which the knowledge of the employees on customers is increased (Liebowitz, 2000, 32).

Another important element of learning in organizations consists of the questions how to learn and why to learn. So these answer to these questions determine the type of learning process to be utilized by the organization and also determines what to learn in this process (Sena and Shani in Liebowitz, 1999, p.8.10).

#### **2.4.1.2.2 Work Design**

Another process that is used to enhance the capacity of the employees and the fertility of the learning process is the work design. Knowledge workers directly intervene in the design of the work process to make it more suitable for the needs of the organization and also the learning process (Sena and Shani in Liebowitz, 1999, p.8.9). To achieve a better knowledge management process the managers initially should determine:

- Which employees are involved in knowledge processing,
- What kind of information do they use,

- Which type of information or knowledge is mostly needed in the organization,
- What are the relationship between the knowledge and decision making system,
- What are the conflicts and barriers among the knowledge workers (Sena and Shani in Liebowitz, 1999, p.8.10).

As all of these points are determined the managers of the organization may need to redesign the working environment of the organization. The redesign consists of the following steps:

- The interactions of the individuals and groups are redesigned. So structural arrangements are conducted,
- The process of knowledge gathering, processing and applying is made more dynamic (Sena and Shani in Liebowitz, 1999, p.8.10).



### **3. KNOWLEDGE AS A COMPETITIVE BUSINESS TOOL**

#### ***3.1 Knowledge and Intellectual Capital***

Intellectual capital of an organization can be defined as the sum of a firm's skills, knowledge, and experience (Morey et al., 2000, p.85). These skills of an organization are very crucial to sustain its competitiveness, and performance. So today investors and analysts look more for evidence of what firms do to secure their intangible assets as intellectual capital. The analysis of the intellectual capital then becomes an important issue.

Intellectual Capital can be divided into three subsections, which are human capital, structural capital, and social capital (Morey et al., 2000, p. 86). So in order to make a thorough analysis of intellectual capital it is necessary to analyze these three elements. Human capital is knowledge, skills, and experiences possessed by the individual employees of an organization. Knowledge consists of both explicit and tacit knowledge. Examples of explicit knowledge are using an e-mail system, knowing how to create a budget, executing a stock trade, etc. Examples of tacit knowledge are writing an advertisement, interpreting marketing data, and knowing how to negotiate a sale. Human capital is managed in order to make sure that the organization possesses the right mix of talent at the right time to implement the firm's corporate strategy (Morley et al., 2000, p. 89). Human capital is defined by four factors at the individual level, which are: the genetic inheritance of the individual, the education of the individual, the experience of the individual, and the attitudes of the individual about life and business. Human capital can be measured and codified but these two processes are very difficult to conduct (Morley et al., 2000, p.385).

Structural capital of an organization includes the explicit, rule-based knowledge embedded in the organization's work processes and systems, or encoded written policies, training documentation, or shared data bases of the best practices, patents and copyrights. Structural capital of organizations helps and supports the individual employees of that organization hence is a valuable asset, which helps to create an optimum level of performance within the organization. With the help of the structural capital the intellectual capital within an organization becomes measurable (Morley et al., 2000, p. 387).

Social capital is the third element of the intellectual capital and is the capacity of an organization to collaborate (Morley et al., 2000, p. 89). Social capital is important for three reasons, which can be given as: it reduces transaction costs, produces higher quality knowledge, and is a source of inimitable competitive advantage.

### ***3.2 Knowledge and Profit: Turning Knowledge into Corporate Asset***

Knowledge has an important share in actions taken to improve the organizational processes. Organizations constantly gather information from a variety of sources on their business and about themselves. This information is gathered from the employee surveys, customer feedback, indicator results etc (Matthews, 2000, p. 10). After the gathering process the information is processed with the help of intelligence and theory. This process leads to the creation of knowledge, which is a very valuable asset for the organizations for improvement. Intelligence has an important role in the creation process of knowledge. Only through the use of its business intelligence can an organization acquire and apply knowledge.

Organizations should undertake certain activities of transformation in order to achieve a bottom-line improvement. Knowledge is essential to this transformation process. This knowledge is obtained from different sources both within and out of the organization and should be integrated (Matthews, 2000, p. 12). So all of the parts of an organization should collaborate in this process. So transformation can only be achieved successfully when:

- The organizations obtain information about their weaknesses and strengths,
- This information is integrated with the use of either theory or sound logic,
- Knowledge is created, which will lead to bottom-line improvements in the organization (Matthews, 2000, p. 12)

Information comes to certain parts in an organization and different departments or parts obtain different information. Because of this and other variations between different business units within an organization different type of knowledge is produced. So in most of the organizations the business units do not work in harmony (Matthews, 2000, p. 12). In order to work in harmony these business units should have something in common, such as a goal. As the business systems work for the same goal then they comprise a system. In order to achieve its goals successfully a system must be managed effectively and the



functioning of the system should be optimized (Matthews, 2000, p. 13). Harmonizing the efforts of the business units within the system is one of the main goals of optimization. Hence optimization fosters cooperation among the different units within an organization. So the aim of the business units becomes not to maximize their production or sales but to maximize their contribution to the whole system.

Information entering a business system is not the same for all the time but it exhibits important variations. So the organizational systems should learn how to cope with this variable information. This variable information should be brought to statistical control in order to make predictions about the future (Matthews, 2000, p. 14). But there are certain mistakes that the organizational system frequently make. These are:

- React to every variation of the coming information even it result only due to normal variation,
- Take every variation as normal and do not take the necessary actions in special cases (Matthews, 2000, p. 14).

Improvement of the business processes is accomplished with the use of organizational knowledge. The whole process can be stated as Plan-Do-Knowledge-Act (Matthews, 2000, p. 16). But most firms fail in this process for several reasons as said earlier. Matthews gives the 12 principles of any improvement process as follows:

- The senior executives should understand the organizational feedback and the need to create knowledge,
- They should form an action plan team to pull together all the obtained information,
- All information and feedback should be assembles and consolidated,
- Quality award categories should be used as an organizing framework,
- The strengths and the weaknesses of the organization should be identified,
- A decision making criteria should be developed,
- Strengths and weaknesses should be prioritized,
- The selected opportunity areas should be assigned and a sponsor and a team leader should be chosen for each task,
- The improvements for each task should be implemented by using a type of problem-solving process,
- The progress of all tasks should be tracked,
- The actual improvements should be integrated into the business planning processes,

- The improvements should be standardized (Matthews, 2000, p. 16).

A successful improvement process involves all of these steps.

### ***3.2.1 Knowledge as a Strategic Resource***

Traditionally industrial economists have regarded that industry structure is the determinant of the competitive advantage of a firm and these economists mainly focused on the environment of an organization and competition. But a resource-based view considers that the determinant of the competitive advantage is the internal organization of a firm (Von Krogh, Roos, and Kleine, 1998, p.241). According to this view possessing unique resources may become an important source for the organizations in gaining competitive advantage. So these resources are referred to as the strategic resources. Strategic resources must share four attributes, which are: they must be valuable, they must be rare, they must be imperfectly imitable, and there cannot be strategically equivalent substitutes. Organizational knowledge is regarded as one of the important elements of an organization's strategic resource through which the organization obtains competitive advantage.

#### **3.2.1.1 Valuable Knowledge**

By using valuable knowledge firms create and implement the appropriate strategies to be used in the improvement processes. Knowledge becomes valuable either if it is able to exploit opportunities or neutralize threats in the environment.

#### **3.2.1.2 Rare Knowledge**

Strategies that have only been implemented by a few competitors lead to competitive advantage. These strategies are established using rare knowledge.

### **3.2.1.3 Imperfectly Imitable Knowledge**

The exact content of this type of knowledge is not known by other competitors hence it cannot be imitated. There are several reasons of lack of imitability and these are the unique historical conditions of development, the ambiguity around knowledge, and the social complexity of knowledge. But as the knowledge is distributed throughout the organization the imitability of it becomes possible.

### **3.2.1.4 No Substitution of Knowledge**

If knowledge has no strategic equivalents than it cannot be substituted. This kind of knowledge is created with a certain kind of resource, which is also not substitutable.

## ***3.3 KM Strategies in Different Organizations***

As soon as the Ernst & Young managers had decided on utilizing KM practices they agreed on a 5-step process to be implemented in this process. For management of this process the personnel of the Center for Business of the company was divided to six. The five-step process included the following items: Strategy, Architecture, Infrastructure, Culture, and Innovation.

The first step of the process involved the development of a KM strategy, future state vision, value proposition, and design principles. At this first step the ideas from John Kotter's book *Leading change* was mostly adopted by the managers. It was thought that the KM program could be instrumental in achieving four important objectives that belong to the initial stage of such a program. These four objectives are: growth, cost and speed to market, customer satisfaction, and learning curve. It was advised that the initial strategic planning of the KM program should be done urgently in order not to allow the competing firms to advance their programs ahead of E&Y. Knowledge was regarded as a source to 'do more with less resource' (Harkins et al., 2000, p. 6). The firm managers in order to achieve their four goals have regularly communicated with the CEOs of the E&Y member firms. As a result of this communications the firms established a 'Guiding Coalition'. The members of this group were chosen among the Chief Knowledge Officers of the firm's ten largest members and all of these personnel had a strong appetite for innovation as well as

enough experience about the firm's business. In addition to these Officers the group involved executive sponsors from the ten member firms (Harkins et al., 2000, p. 6).

The second step of the process consisted of designing the architecture of the organization. To this aim the firm selected Lotus notes and Web technology. In addition to this the firms also decided upon using, simple Small Document Libraries and Engagement Team Databases, which would be used by teams in a small community of practice or work assignment, more sophisticated Large Document Repositories, which have a comprehensive taxonomy for finding relevant documents among huge numbers of unfiltered knowledge objects, PowerPacks, which are highly filtered, tightly organized repositories on specific, professional, subject-matter areas. The major aim of the firm in designing this architecture was to:

- Make it easier for the training users in finding, using and reusing the firm's knowledge,
- Integration of external source and firm proprietary knowledge about subject matter,
- Keep consistency of quality repositories and their content,
- Establish ability to replicate knowledge from one area of the firm to another (Harkins et al., 2000, p. 8).

The third step of the process consisted of designing the infrastructure of the organizational system. The aim of the firm was to give its employees new competencies. There were librarians of the firms who were responsible in obtaining and delivering the needed knowledge within and out of the firm. But what the company needed was to employ knowledge professionals who would:

- Understood the firm's and its clients' businesses,
- Be able to work with technology and be knowledgeable about sources on-line content,
- Be knowledgeable both about the firm's own internal knowledge and external-source of knowledge,
- Took the initiative to reach the customers and sell them firms expertise,
- Distill, synthesize, analyze, interpret, package, and add insight to the raw library and database material (Harkins et al., 2000, p. 10).

Most of the librarians of the firm supported the change process. The others who did not like the idea of change and could not accommodate to it were relocated elsewhere in the firm. So the firm gave new roles to its Center for Business Knowledge personnel and practitioners. These roles were as follows: Subject Matter Specialists, Knowledge Stewards, Knowledge Managers or Knowledge-Base Owners. For each role responsibilities were defined and the performance of the personnel was evaluated in order to enhance the process and perfect the operation of the system (Harkins et al., 2000, p. 10).

Hewlett and Packard firm had determined that the KM program could not be driven by technology. The firm started with the business results and identified the required action and decisions to achieve these results. As the actions were determined the firm defined the needed knowledge to support these actions and decisions. The last step of the process consisted of acquiring the appropriate information and data. So the firm turns the traditional approach upside down (Harkins et al., 2000, p. 33).

The managers of the firms initially designed a program with three objectives. These objectives were: balance the reuse of knowledge with innovation, promote pervasive leveraging and sharing of knowledge, to tightly integrate the sharing knowledge into the work practices of the organization in order to make it a part of the daily work. The KM team of the firms decided to begin the program with a pilot and they have chosen the SAP practice in North America as pilot. The previous attempts of the SAP team of capturing and sharing knowledge had been unsuccessful. So in order to enhance the KM practice of the SAP team the KM team initiated a SAP practice called the Project OWL (Orchestrating Wisdom and Learning). The aim of the project was to demonstrate the effectiveness of knowledge management both to the consultants and to the organization as a whole. The objective of the project was to develop a core group that would identify, share, and leverage knowledge for the benefit of the other members of the organization (Harkins et al., 2000, p. 35). As the results of this project were obtained the firm decided on a future program. For the broad implementation of the KM program a three-phased approach was used. These phases were as follows: Create the Foundation, Build and Launch Environment, and Permeate the Environment (Harkins et al., 2000, p. 38).

The first phase of the implementation consisted of three processes: Learning Communities, Project Snapshots, and Knowledge Maps. Learning Communities consisted of informal groups of people. These people came together to discuss best practices, issues,

or skills that the group wants to learn about. These people could meet face to face or through conference calls. Projects Snapshots were sessions designed in order to collect the learned lessons and collateral from a project team that can be reused by future project teams. In the process of Knowledge Mapping knowledge, skills, collateral and the needed tools to sell or deliver solution were identified. Experienced consultants came together in order to build the map based on their experience and know-how. This map would be used as a guiding tool to determine what knowledge is important and where this knowledge can be found (Harkins et al., 2000, p. 40).

The second phase of the program broadened the scope of the KM effort and included measures, new roles, and enabling technology. The goal of this phase was to design and implement a holistic knowledge-based system. The KM team mainly focused on three strategies. The first strategy consisted of broadly implementing and integrating the knowledge processes that were developed in the previous phase. The second strategy consisted of building organizational capability by developing skills, embedding knowledge management into the evaluation system and by providing rewards and recognition for outstanding examples of knowledge sharing and reuse. The third strategy in this phase consisted of implementing a repository for the storage and access of explicit documented knowledge (Harkins et al., 2000, p. 42).

### ***3.4 Technology for Managing Knowledge***

As information technology is changing today, more and more organizations begin to make use of it. The need for the usage of IT has arisen out of the fact that more effective knowledge management is needed today. Two approaches regarding information technology have emerged. One of them see the development of information technology as an evolutionary process and see information technology as savior, which has the capability and the power to reduce conflict, poverty, and disintegration. The second approach sees information technology solely as a tool of the developed countries. That is why information technology is regarded as tool that will support the economic dominance of the developed world over the underdeveloped world (Mowlana, 1997, p. 169).

Through the innovations done in information technology the collection, storage and distribution of knowledge has been improved (Sena and Shani in Liebowitz, 1999, p.8.7). But the knowledge workers of the organizations, in order to utilize IT effectively, should

understand IT properly. So to solve this problem many hardware and software firms create specialized products that can be used easily by the individuals in specific organizations. Other than these programs the IT firms have also made many innovations to make the working environment easier for the knowledge worker. Examples to these innovations include creating new computer architecture, and using object-oriented technology.

In order to make more enhanced use of the IT technologies initially the perspective of the employees should be changed. IT should be seen as the new engine for growth (Sena and Shani in Liebowitz, 1999, p.8.7).

Management of information consists of three basic components. These components are the data resources management, process management, and information technology management.

#### ***3.4.1 Data Resources Management***

Data resources management consists of three components too. These are the data management, database management, and data technology management. These works have been designed to provide an efficient operational processing. Efficient usage of the knowledge is also related to the representation of the knowledge. So good presentation of knowledge is important and enhances the work of the knowledge worker. In some organizations overviews of operations are described in balanced scorecards. In these scorecards some performance factors are updated daily to support managers and their staff in decision making process. These performance factors include customer measures, internal business measures, financial measures, strategic measures, innovation, and learning measures.

#### ***3.4.2 Process Management and Information Technology Management***

Process models reflect the fundamental business value chains. This model is integrated through shared information. Management principles have to be applied to information technology and the management of information technology increases the value of information technology by enabling maximum use with minimum cost (Sena and Shani in Liebowitz,1999, p.8.8). In successful companies knowledge is created, disseminated, and embedded in new technologies. This knowledge becomes the basis for and infrastructure for creating new knowledge. Today information is not only a technical

resource but it is used also by business personnel (knowledge workers), created by business personnel (data producers), and defined and guided by business personnel (data definers) (Sena and Shani in Liebowitz, 1999, p.8.8).

Organizations utilize different types of management technologies. Twelve different types of management technologies can be given. These are: Electronic mail and messaging, group calendaring and scheduling, electronic meeting systems, desktop video and real time data conferencing, group document handling, workflow, workgroup utilities and development tools, groupware services, groupware and KM frameworks, groupware applications, and collaborative internet based applications and products.

#### **3.4.2.1 Electronic mail and Messaging**

Electronic mail and messaging includes messaging infrastructures and e-mail systems. Sample products to the electronic mailing systems are cc: Mail/Notes mail – Lotus/IBM; Microsoft Mail/Exchange; Eudora – QUALCOMM Inc.; Banyan Intelligent Messaging – Banyan Systems Inc. Issues about the electronic mail systems technology are as follows.

- Standards, XAPI, MAPI, X.400, X.500 (directory services)
- How to integrate multiple mail systems in one enterprise?
- Security and the owner of the individual's mail addresses,
- Etiquette and the efficient use of e-mail,
- Filters, agents, and the ability to deal with huge numbers of messages daily

#### **3.4.2.2 Group Calendaring and Scheduling**

This category includes the products for calendar, meeting and resource coordination. Sample products in this group are: Lotus Organizer – IBM Lotus; On Time – Open Text Corporation; Synchronize – CrossWind Technology; Meeting Maker – ON Technology Corporations; Microsoft Schedule +. Issues about this category are:

- The scheduling of meetings becomes more easier hence they are proliferated,
- There is no privacy for personal calendars,
- There are enough users in the company and the system becomes worthwhile,



- The systems allows scheduling across multiple time zones,

### **3.4.2.3 Electronic Meeting Systems**

This is a real-time collaborative system and a collaborative presentation system. Sample products to this group are: Group Systems – Ventana; MeetingWorks – Enterprise Solutions; Council Services – CoVision; Option Finder – Option Technologies; Facilitate.com – Facilitate.com, Inc, TeamTalk – Trax SoftWorks. Issues about this system are:

- The system can be integrated with calendaring/scheduling systems,
- There are features like post-meeting follow through, action items, commitments,
- The system can afford desktop video conferencing,
- Multiple conferencing is available,
- There are no standards that limit the application of the technology,
- The system is widely accepted within the corporate culture,

### **3.4.2.4 Desktop and Real-Time Data Conferencing**

In this system the focus is on real-time. The products in this category have document storage facility and other people can see these documents simultaneously. Sample products in this category are: PlaceWare Conference Center –PlaceWare; PictureTalk –Picture Talk; NetMeeting Microsoft; FarSight/Ne.120 – DataBeam/Lotus. Issues about this system are:

- The cursor can be controlled on the screen.
- There is limiting number of people who can conference efficiently,
- Equipment should be compatible,
- Internet and intranet should be available,
- The system has features like post-meeting follow-through action, action item, goals, and commitments.

### **3.4.2.5 Non-Real-Time Conferencing**

Synchronous conferencing is mostly like a bulletin board. Information can be carried on a conversation over time. People can leave messages to someone and then get the answers from them later. These messages can be both public and private. Sample products in this category are: Collabra – Netscape; WebBoard – O’Reilly; eRoom – Instinctive Technologies; GroupWare – Novell; Lotus Notes/Domino – IBM/Lotus; FirstClass Intranet Server – SoftArc Inc. Issues about this system are:

- There is limiting number of people who can use the system in an efficient way,
- The benefits of conferences and discussions are maximized,
- The system has transaction based store and forward databases,
- The system supports world wide locations,
- The system can be integrated with legacy systems,
- The system can be integrated with electronic calendaring and scheduling systems,
- The system has features like post-meeting follow through action, action items, goals, and commitments.

### **3.4.2.6 Group Document Handling**

Group document handling includes group editing, shared screen editing work, group document/image management and document databases. Samples to systems in this group are: Domino.Doc – Lotus; Enterprise Document Management System – Documentation, Inc., Markup – Mainstray SoftWare, OnGo Document Management – Uniplex, Livelink – Open Text. Issues about this system are:

- There are page mark-up standards such as SGML, HTML, and CALs,
- The systems supports word processors and page layout programs,
- Can be integrated with enterprise document/image databases or repositories,
- There is data integrity and integration with other documents and repositories,

### **3.4.2.7 Workflow and Process Tool**

Workflow and process tools include workflow process diagramming and analysis tools, workflow enactment engines, and electronic forms routing products. Sample products in this category are: Action Works Metro – Action Technology, LiveLink – Open Text, Staffware – Staffware, MW Series Workflow – IBM, JetForm – JetForm Corp.. Issues about this system are:

- The system has workflow coalition standards,
- Information and document can be passed between products,
- Poor processes can be automated,
- Can be integrated with EDI and other customer services,

### **3.4.2.8 Workgroup Utilities and Groupware Development Tools**

The system includes utilities to support group working. Remote access to some else's computer is possible. And the system has specific tools for group work applications development. Sample products in this category are: Windows for Workgroup – Microsoft, ReplicAction – Casahl Technologies, Lotus Notes/Domino – Lotus Notes Pump. Issues about this system are:

- What should be the functionalities of the OS and the application?
- What are the decision-making issues when deciding whether to develop for the OS, GUI, or network?
- The following about the issuer should be ensured: compatibility, standards, object-oriented code, licensing (network, multimedia, intellectual property rights).

### **3.4.2.9 Groupware Services**

Groupware services include the services to support collaboration. Samples to these are: Planning and implementation, business process reengineering, application development, knowledge management, training and maintenance, electronic meeting facilitation, collaborative assessment, On-line community building, change management, and consulting. Issues about these groupware services are:

- Expertise is the most valuable item and all expertise is not present in the organization. So how this expertise should be identified and pulled together?
- How should be the meetings facilitated successfully?
- What are the best tools for reengineering?
- How to use the consultants in the best way? What do the consultants know that your managers and other employees don't know?
- Any attempt of change should be supported by the management and the stakeholders,
- How will the return on investment of the groupware be evaluated?

#### **3.4.2.10 Groupware and KM Frameworks**

This group focuses on products that help integrate isolated groups of collaboration groups across platforms, operating systems, e-mail systems and network architectures. Sample products to this group are: GroupWise – Novell, TeamOffice – ICL/Fujites, GoldMetal – GoldMetal, Inc., Lotus Notes/Domino – Lotus/IBM, Netscape SuiteSpot Servers – Netscape. Issues about this group are:

- Collaborative efforts are supported and the desktop is integrated,
- Security,
- Can frameworks groupware help collaboration outside of the organization?
- Will establishing groupware standards make framework less attractive?

#### **3.4.2.11 Groupware Applications**

This group includes vertical applications that use collaborative technologies to either enhance processes or support collaboration in a specified work environment. Sample products to this group are: BAI-5000 Distribution Management System – Business Automation, CustomerFirst – RTI (Repository Technologies, Inc.), MedTrak – MedTrak Systems, CenterPoint – Bank of Montreal. Issues about this group are:

- Applications are customized, other than this there are infrastructure and cost issues,
- Vertical market competition,
- Does application solve specific collaborative business need?

- Integration with the existing legacy system is possible

### **3.4.2.12 Collaborative Internet-Based Applications**

Most of the collaborative functions are moved to the www. Internet is used as the input and output. In addition to this traditional groupware is still used on the LAN. Sample products in this group are: Domino/e-suite-IBM/Lotus, LiveLink – Open Text, Learning Space – Lotus, Knowledge Manager – Aeneid/Gale Group, Wisebot – Tetranet Software, CommonQuest – Imana. Issues about this group are:

- Applications are customized on the www for collaboration,
- There are costs of publishing to and from the web,
- Data and information storage can be done,
- There is balance between security and collaboration,
- There is limitations to traditional groupware relative to web applications,
- There is also limitations to web based applications relative to traditional groupware,
- Integration with the existing legacy systems is possible.

Since the beginning of its application Information Technologies have been widely utilized by many firms in order to enhance the functioning of their business system and to become more competitive in the market. Ernst & Young is one of these companies. The company has conducted gradual IT implementation phase, which was part of its change program. The implementation lasted for 4 years and has been performed between 1995 and 1999. The company has developed the following web-based tools:

- Knowledge Catalogue: is a simple table of contents searchable directory of the firm's 1000+ knowledge repositories. It has been established in 1995.
- Knowledge Search Engine: is a complete key word index of over 1 million knowledge objects. The ranking in this is done by relevancy and the engine has the ability to display retrieved objects in both native (Notes, Word or Note Pad) and web format. The engine is established in 1997.
- Community HomeSpaces: These are the navigators that give members of a Community of Interest dynamic access to all knowledge about community's subject matter. The home spaces have been established in 1998.

- Service Delivery Tools: The tools are a self-documenting software applications that take practitioners step-by-step through a professional sale, service delivery, or practice management process, and automatically extract the knowledge from the Knowledge Web that is relevant to each process step. The tools have been established in 1999.
- Personal Home Page: This is a completely configurable personal Intranet home Page that links to all of the profiled news, repositories, communities of interest, service delivery tools, schedules and work-lists that the practitioner needs to do his/her job effectively, anytime, anywhere, completely on-line (Harkins et al., 2000, p.12).

Hewlett Packard is another big company that has utilized IT tools. K-Net is the portal that has been established by Hewlett Packard. It has been established in 1998 as the new technology solution of the firm. K-Net is a structured, interactive electronic portal. The portal can be browsed and searched for knowledge. The portal also includes project workspace, project documentation management, and a discussion forum. The discussion forum helps guide consultants to the collective pool of organizational knowledge. The system is based on the software tool of LiveLink. Through this new system the consultants and managers of the company easily and flexibly share and retrieve information at any stage of the ongoing projects. The KM team of the Hewlett Packard has formed a Standards Board in order to evolve content management capabilities and to ensure consistent content management practices (Harkins et al., 2000, p. 44).

Buckman Labs has also utilized an IT solution. The name of the implemented new technology is K'Netix and it is a knowledge sharing system. The Buckman Lab has products for both: solutions for systems (chemistries) and solutions for people (knowledge, creativity, and team problem solving). Via the K'Netix 1200 associates can be online at any time to share their knowledge. Certain services that can be accessed online are as follows: Customer service, technical experts, lab analysis, safety and environmental services, product development teams, problem-solving workshops, and change management seminars (Harkins et al., 2000, p. 176). There are the system operators that act as cheerleaders, monitors, and nags. These system operators monitor the bulletin boards and answer all the posted questions quickly and completely. They also archive every information in the system so that this information will be available in a coherent and easy

access format. Section Leaders are responsible from every subject on the bulletin boards. Other than these groups there are the Cyberians who are librarians. They are well trained in information technology and data and information storage. They help everybody who searches information through thousands of databases (Harkins et al., 2000, p. 177). In addition to K'Netix the Buckman Lab has opened a learning center. The Bulab Learning Center is opened in 1997. The center offers on-line learning in five languages. Four areas of learning were offered at the beginning. These are academic, business, industry, in house and external development.

As soon as their traditional business strategies began to become outdated and ineffective the managers of the company AT&T have begun to search for a new business strategy. So Knowledge Management and Organizational Learning has quickly become the motto for change. After this the new system, IKE, Information and Knowledge Exchange sales support intranet, has been created. The system is one of the five largest sale support intranet sites in the world. The system was originally designed to provide sales information to the sales staff of AT&T Global Business Service. The mission of IKE was to communicate change from headquarters to the field in the most rapid effective and uniform way. Now the system has become the most important tool for executive communications within the company. Today IKE handles 14000 regular users throughout the company. Customer and industry news, groupware, product news, and collateral, presentations, contracts, and up-to-date information on sales or contract status are provided to the sales teams and other personnel (Harkins et al., 2000, p. 62).

## **4. KNOWLEDGE MANAGEMENT AND FACTIVA**

In 1999, Dow Jones & Company and The Reuters Group combined their interactive business intelligence services, Dow Jones Interactive and Reuters Business Briefing. (See appendix1)

Factiva, a Dow Jones & Reuters Company, provides world-class global content, including Dow Jones and Reuters newswires and The Wall Street Journal-unduplicated in a single service elsewhere. Factiva offers the only single content solution with multiple language interfaces and multilingual content covering 8,000 sources. (See appendix 2)

### ***4.1 Knowledge Management Methods of Factiva***

#### ***4.1.1 Data Gathering as a Knowledge Management Tool***

Organizations need more data about their business and about the market more than ever. Hence data gathering is becoming more important for them. But data gathering is not simple and requires the coverage of the contents of many newspapers, web sites and other sources. There are additional factors that make the task of the knowledge workers more difficult. These factors are:

- The huge amount of data gathered by organizations,
- The growing need to work with data and use tools such as knowledge management or customer relations management,
- The need to store different kinds of data, such as text, picture, etc, and the need to access them via one interface,
- The desire to deliver information in a more usable fashion and to deliver information that is relevant to the user needs,
- The need to open databases to outside users, such as customers or partners ([www.factiva.com](http://www.factiva.com)).

So these difficulties force the organizations to search for new tools with more capabilities. Organizations, as well as Factiva, search for tools that have a powerful content, retrieval application, specialized search engines, enterprise portals, etc. Hence many companies struggle to offer new and proper IT solutions.



Searching is essential to data gathering and it is very important. Organizations spend too much money to make enough searches to gather proper data. There is a need to make the search facility quicker and more accurate so that employees spend less time. Accurate information and speed improve efficiency and productivity of the firms. Content management and retrieval application are the basic search methods that organizations utilize. The tools that have been used or content management are as follows:

- Software that provides access to data,
- Workflow tools for following important documents, record keeping, auditing, and logging,
- Categorization tools,
- Directory building tools,
- Updating tools ([www.factiva.com](http://www.factiva.com)).

Organizations that offer solutions to IT problems struggle to make improvements in the search tools to establish the desired efficiency. Factiva is also one of these organizations. The following improvements have been made:

#### **4.1.1.1 Search Engines**

These are the most common content management tools. Most companies have an installed search engine in their networks. Search engines are becoming specialized to match the needs of different organizations ([www.factiva.com](http://www.factiva.com)).

#### **4.1.1.2 Categorization and Taxonomy-Building Tools**

Content of the information is arranged according to different information categories and this increases the speed of the search facility. Categorization helps the users to perform easier searches.

#### **4.1.1.3 Personalized Alerting**

After making a search users can extend it in time and when information becomes available in time they are being alerted. In this way users don't lose time in making the same search for many times ([www.factiva.com](http://www.factiva.com)).

#### **4.1.1.4 Single Point of Access**

Users can access all different types of information from just one interface or location.

#### **4.1.1.5 Indexing Tools**

Help the employees to increase the data gathering capability of their organizations.

#### **4.1.1.6 Nontext Search**

Users who are searching for videos, pictures or audios find this tool very useful. It helps them to save search time.

#### **4.1.1.7 Ease of Use**

As the search facility becomes easier to use not only the technical personnel but also the non-technical personnel can conduct searches.

#### **4.1.1.8 Specialized Information Delivery**

Using these tool users can create special documents, Web pages, and look for what they exactly need.

Factiva, as said earlier, is one of the companies that work to create IT solutions to KM problems. The company offers tools that match all of these needs.

### ***4.1.2 Content Intelligence Services***

Contents of the Web Services that are being delivered by IT companies are important for the business organizations. Rich content helps the organizations in accessing sufficient information and in this way improve their decision-making processes. So a new generation of software has appeared which make use of rich content and Web technology standards to deliver Content Intelligence Service to organizations. Factiva is one of the firms that have produced such services to its clients. Previously the published business information and the internally developed materials by organizations have been separate. The aim has been to

close the distance between these two kinds of information and make them available for business users via one interface. The new generation of content services includes:

- Normalization of mechanics to replace incompatible proprietary content formats with highly structured
- Standards-based interfaces,
- Professionally developed taxonomy and classification engines to contextualize both internal and external content,
- Accessible application facilities for plug-and-play installation in business applications and portal services,
- Ongoing update and maintenance for the professional engines ([www.factiva.com](http://www.factiva.com)),

#### **4.1.2.2 The Transition of Professional Content**

The quantity of electronic information is increasing today but the corporate intranets don't have the necessary tools to support them. So today a need has arisen as transition information work to a new base of more flexible and functional applications. Now many IT tools deliver content intelligence and context as part of desktop environment. These tools utilize new content standards and include software, knowledge engineering, and professional information access in a coordinated service package. In the changing environment the old tool have created a frustration for the users. The reasons for this frustration are as follows:

- Difficulties of finding information
- Inadequacy of the tools,
- Multiple sources and poor quality ([www.factiva.com](http://www.factiva.com)).

#### **4.1.3 New Approaches to Content Intelligence**

The new tools have created a totally new and fertile environment for intelligent content. Intelligent content refers to content enhancement technologies and organizational knowledge practices to deliver dynamic and fully personalized Web workplaces. The new emerging workplaces have the ability to contextualize information from internal and external sources and from data-driven, semi-structured, and unstructured application

systems. New tools provide a new kind of information service. The new tools have the following features:

- Leverage technology across a spectrum of text analytics,
- Content integration,
- Classification,
- Profiling,
- Search,
- Provision components to take a large step toward integrating external premium content and internally developed content into a personalized decision portal ([www.factiva.com](http://www.factiva.com)).

#### **4.1.3.1 Content Intelligence Services**

The strategy of Factiva's Content Intelligence is composed of several parts. These are as follows:

- The value of content is to be enhanced by normalizing the content formats,
- Create a consistent, independent, richly structured XML representation,
- Filter content through several tools and apply taxonomy, categorization, and structured facilities,

One of the main problems with the new content intelligence technologies is creating industrial standards. The new system should have several features and these are as follows:

- Support improved access to information in existing systems,
- Better operability among previously incompatible systems,
- Much more intelligent access and display of all kinds of content,
- Improved flexibility in information work,

The new technology now delivers smart content functions over the Web. The functions of this new smart content are: include 'store' search procedures to find the latest news about competitors, involve real-time processes to rationalize, analyze, categorize, and deliver professional content to business portals. The new technology is considerably cheap and does not need the installation of massive technological hardware ([www.factiva.com](http://www.factiva.com)).

#### **4.1.3.2 Classification of Information**

As the quantity of information is increasing a need for classification also began to be seen. Many old IT tools failed due to reasons of volume, relevance, and form factor. Personalization or professional role identification are facilities that are important and increase the value of IT tools. As the volume of information increases many professionals have had problems in dealing with huge amounts of information. Hence filtering was needed to deliver only the relevant information to the specified users. Accuracy and persistence are two important concepts when classification is considered. Information should be classified accurately so that the users face no other difficulties in searching it. Also, the classification efforts should have a continuance so that users would not face with system failure problems immediately ([www.factiva.com](http://www.factiva.com)).

#### **4.1.3.3 Classification Services**

New IT structures or tools, as well as Factiva tools, have classification structures that organize information. So because the needs of the organizations have arisen very much and make classification necessary, these classification tools have gained much importance. The classification tools provide customized information to different departments in different organizations and have helped to improve productivity. It is seen that the content intelligent services in general have to become more flexible and inherit some of the characteristics of a firm's business environment. These characteristics may be stated as follows:

- Operative industry characteristics,
- Key professional and functional heuristics and practices,
- Individual business process patterns of clients,
- Regulatory influences,
- Organizational culture and communication practice

Content Intelligent Services offer solutions to different important aspects of the Knowledge Management problem. These aspects are: quality, organization, and integration. These tools have reached a new level of interacting with high quality information. The classification schemes of these tools have made it possible to offer organized specific information and in this way improved the relations with organizations.

Lastly these tools by providing customized solution and by allowing the use of their services to be accessed via a single interface have achieved integration with the organizational databases ([www.factiva.com](http://www.factiva.com)).

#### ***4.1.4 E-learning for Organizations***

In order to catch the changes in their business environment organizations help their employees to learn and increase their learning capabilities. As IT has been begun to be used extensively by organizations they have began to use it as a learning tool too. So e-learning has emerged. E-learning includes the use of network technologies to create, foster, and facilitate learning. There are computer-based learning, Web-based learning, virtual classrooms, and digital collaboration. Learning content can be delivered via several electronic media. These are: Internet, intranets/extranets, satellite broadcasts, audio/videotape, interactive video, CD-ROM. Through the e-learning the learning processes have been improved very much in the workplace. They have become self-directed, customized, and individualized. Many organizations have utilized e-learning as a part of the KM programs.

In practice e-learning has offered solutions to two business problems. These are:

- Speed and cost of learning. E-learning provided faster, more economical, and distributed learning,
- Efficiency, time, and share. E-learning improved all of these items ([www.factiva.com](http://www.factiva.com)).

For business purposes traditional learning processes have become expensive due to several reasons. These reasons are:

- Costs for travel and facilities,
- Costs for updating, printing, and shipping of course materials,
- Costs of employee time away from the work ([www.factiva.com](http://www.factiva.com)).

On the other hand e learning has proven to be cheap when compared with the traditional learning processes. The costs of e learning composed of the following:

- The courseware,
- Authoring software,
- Learning management systems,
- Purchase/licensing of Web-based software,

- IT system enhancements and upgrades ([www.factiva.com](http://www.factiva.com)).

Factiva has undergone an e-learning program within the company too. The Factiva Learning Program was established in 2001. The program included the following

*Web conferencing sessions:* Employees can participate to these sessions at the predetermined times by logging on to WebEx, which is an online interactive meeting facility.

*Discussion Forums:* These forums brought a face-to-face effort to the virtual learning effort.

*Downloadable resources:* Two types of PDF documentation were available: quick reference cards for basic information and booklets with depth-in information.

*E-mentoring:* Phone and e-mail conversations were available for the employees who requested for help on the subjects ([www.factiva.com](http://www.factiva.com)).

## ***4.2 Knowledge Management Case Studies of Factiva and Clients***

### ***4.2.1 KM Program at Factiva***

Factiva Company offers solutions to the KM problems of other organizations. But the company has to also implement Knowledge Management solutions to its own problem too. Knowledge Management comprises the core of the corporate strategy of Factiva. By creating an employee portal the company offered a solution to its KM need. The focus of the KM strategy of the company was to shift from a product-driven company to a solutions-driven company. The main aim of the Employee Portal was to by providing the employees access to crucial information. Prior to the Employee Portal the company had a corporate intranet. But with the implementation of the portal the employees of the company have had access to all relevant information and data from a single interface and single source. The portal made also transparent authentication possible hence the employees of the company don't had to conduct long and complex log-in procedures to enter a site (Factiva KM Program at [www.factiva.com](http://www.factiva.com)).

#### **4.2.1.1 Applying a KM program**

The company initially created the Knowledge Council, which had the task to discover the knowledge and information need of the company. Sales department was chosen as the initial target group for the KM program. The sales department has a constant need to diverse information. The need of this department included having access to all internal documents required to support a sale, to have access to the ability to research prospective companies. So the Knowledge Council conducted a Content Needs assessment. At this step the Factiva Taxonomy Services were utilized (Factiva KM Program at [www.factiva.com](http://www.factiva.com)). The assessment was divided into four categories, which were as follows:

- In order have a better understanding of the type of content produced and its place of storage a wide audit was conducted within the company,
- A survey was done in the company. The aim of the survey was to learn the search obstacles and successes that the employees had in using the old system. In addition to this their ideal portal views were also asked,
- 12 people kept sales diaries in order to have better understanding of the handling of the sales information within the company,
- Another survey about the findings of the previous survey and audit and feedback taken from the employees.

#### **4.2.1.2 Findings**

The findings of this assessment suggested that the sales department could obtain the relevant information for them by accessing simply to customer accounts. So the need for a better organization of the internal product, company and legal information using an internal corporate taxonomy has arisen. After this the company created a taxonomy roadmap for the solution of the problem. Here a Factiva tool was utilized, which was Factiva Intelligent Indexing Taxonomy. The coding of the content was done with this tool. Through the assessment procedure the company was able to prioritize efforts and better organize framework for the new Employee Portal (Factiva KM Program at [www.factiva.com](http://www.factiva.com)).



### **4.2.1.3 Solution**

As the company begin to search for the best solution and for the best tool the several criteria were set. These criteria were composed of the features, which the chosen tool should possess. These are: personalization, content management, delivery options, integration with Factiva products, search functionality, and collaboration capabilities. According to these criteria the company utilized its own tools for the solution. These tools were Factiva Fusion, Factiva Publisher, and Factiva Taxonomy Services.

The basic requirements from the new system were make the previously hidden information accessible, allow internal and external content searches together. So the companies need content management tools to process the internal and external information. The content need to be organized and filtered according to the needs of each department. The design of the user interface of he portal was important too. The following factors have been found to be important: easy access to workflow tools, a friendly impression with simple layout, is able to create job specific homepages, improved navigation, and easy access to the relevant information.

The key elements that have contributed to the success of the solution were identified as: Communication between the personnel and the KM managers, planning of the project, scalable solution and expertise (Factiva KM Program at [www.factiva.com](http://www.factiva.com)).

### **4.2.2 Altria Group**

Altria Group is the parent company of the Kraft Foods Inc., of Philip Morris USA and International and SABMiller plc, which is the second largest brewer of the world. . Altria Group owns 84% of the shares of Kraft Foods and 36% of the SABMiller. The revenues of the Altria Group companies have been around \$80 billion. The group has around 50000 employees worldwide and all of these employees require online company, industry, and competitor news. In order to meet the demands of its employees the Altria Group decided to utilize the Factiva solution to its KM problem. Director of the Internal Communications of the Altria Group, Andre Russotti, has created a team working on the problem of development of the company's internal business unit communication, intranet development (Altria Group Case Study at [www.factiva.com](http://www.factiva.com)). The objectives of the team were as follows:

- Encourage knowledge sharing by storing news in a single content repository,
- Provide a news system that accurately reflected each of the independent business units needs,
- Reduce deployment costs by leveraging a centralized platform,
- Minimize the amount of time spent on searching for information.

The team and the Internal Communications department of the company have decided to collaborate with Factiva in order to achieve their objectives. The firm utilized Factiva Publisher and has built a content repository for all operating business units. This content allowed all Altria employees and the employees of the operating companies to customize information for their own business units. This new solution allows the employees of the group to:

- Provide a knowledge sharing environment with colleagues across the company,
- Stay updated with the pertinent news that are vital to their jobs,
- Individualize those news that are important to their roles in the company and reduce the time spent in searching for information,
- Receive news headlines classified according to topics on their intranet homepages.

The needs of the Altria Group companies were determined as the following.

Before applying any solution at the Altria Group Factiva had to determine the business needs of its client organization. The purpose of this step was to record the functional requirements, define the infra-structural requirements, and implement a solution according to the findings of this assessment step (Altria Group Case Study at [www.factiva.com](http://www.factiva.com)). So Factiva employed a team for this purpose and the findings of this team revealed that the group desired the following:

- A new system that would have the appropriate content for each different business unit,
- Creating a centralized platform and in this way reducing the deployment costs,
- Sharing the knowledge by storing news in one repository.

In addition to these wants of the group the company had also some business objectives, which were as follows:

- To deliver intranet sites that have a standard look and feel,
- With the use of relevant headlines drive the traffic to intranet sites,
- To publish internal news, which would appear together with the external news,

- To control folder content by leveraging editorial expertise to filter news.

Factiva Client Solutions was able to match all the different needs of each business unit and made it sure that the new platform would reduce cost. Factiva Client Solution composed of the following parts: Headlines, Company Identities, My News, Search Function, Company Portfolio Tracking, Corporate Folder Selection (Altria Group Case Study at [www.factiva.com](http://www.factiva.com)).

*Headlines:* the headline folders are being created by the editors who have the capacity to create them with pertinent business topics for each business unit.

*Company Identities:* Each business unit is able to maintain its own corporate identity.

*My News:* Users can build up to five different personal news pages and they can add any of the relevant folders to these pages.

*Search Function:* Each entity has a news search engine within the intranet. This engine makes relevant content searches of news throughout the site possible.

*Company Portfolio Tracking:* A portfolio that includes the traded companies on the global exchange can be created by the users.

*Corporate Folder Selection:* Each business unit defines the folders to display relevant news.

All of the Altria Group companies have reached an agreement about the ultimate solution that was to be applied as the solution to the KM problem. Each business wanted to control the display of the content and look and feel of their own sites and this was done. So with this solution the employees of the group have been able monitor competitive information both on a domestic and global level, view company news, tend, and issues, and stock quotes within each intranet site.

#### **4.2.2.1 Impacts of the Factiva Solution**

As Factiva Solution has been begun to be used all employees of the group have become able to make smarter decisions about the business. The new system eased the delivery of the relevant information to the business units. The Project Manger Consultant of the company explains this fact as follows: “Each Company operates independently so each entity wanted to be able to access relevant news through their own intranet.” She also adds “Every operating company now has their own customized intranet as opposed to

having one corporate site with a lot of irrelevant information” (Altria Group Case Study at [www.factiva.com](http://www.factiva.com)).

### **4.2.3 British Airways**

British Airways is one of the world’s biggest (the fifth) international airline companies. The company has two operating bases, which been located in London. One of them is the Heathrow Airport and the other is the Gatwick Airport In the year 2002 the company has made 499000 flights and carried 44 million people. So nearly 80 passengers are checking in every minute and a flight is being made every 60 seconds. In addition to the passengers carried the company has carried 905000 tones of freight and mail. So as the dimensions of the business of the company are taken into consideration the need for KM arises (British Airways Case Study at [www.factiva.com](http://www.factiva.com)).

The company goal was set to have an annualized cost saving of £450 M by March 2003 and £650 M by March 2004. The achievement of this goal needed significant changes to be performed at the company. This change included the creation of superior processes and information support. Hence knowledge is central to this program. Obtaining good results highly depended on the improvement of the processes, making better-informed decisions, and creating efficient management transactions. A new formal procurement process was introduced. This process partly involved external research and checks into the existing potential suppliers of the company. So the managers of the company have decided upon implementing a Factiva Solution, namely the Factiva.com (British Airways Case Study at [www.factiva.com](http://www.factiva.com)).

#### **4.2.3.1 Factiva.Com**

Factiva.com supplied unreplicated business content gathered from the world’s top newspapers and wire services, such as Dow Jones, and the Financial Times. The British Airways professionals have become able to find data that is relevant to their specific business activity. When efficiency of the business processes is considered less information is more. It is preferred to large amounts of insignificant and irrelevant data. Factiva.com allows the personnel in each different business unit to reach relevant and updated information. The tool can be used both as an awareness tool and as a search tool.

The aim of the company was to reach more information in order to negotiate better deals with less cost. So Factiva.com provides the necessary high quality information to the company personnel. In this way the company personnel have become self-sufficient in research. They conduct their own researches from their desks and don't rely anyone else, such as the research experts. Reducing the big content of information sources was one of the aims of the company. While some departments had access to premium content others did not have it and this created an imbalance. Now the Factiva.com provides access to all the necessary information including the daily news from the important business organizations, market researches, analyst reports, and company information.

One of the Research Managers of the has declared the following about Factiva.com "Factiva.com is capable of doing much more than simply feeding news to us. We want to enjoy much deeper relationships with suppliers, so we use Factiva to inform us about everything going on in their business. As we understand them, a more collegiate approach develops." (British Airways Case Study at [www.factiva.com](http://www.factiva.com)).

Factiva also helps the British Airways personnel to get the most amount from content and tools. An expertise consultant from Factiva worked with the BA personnel during the implementation phase. The personnel of BA were trained about the use of the tool. Further these personnel were encouraged to individualize the Factiva.com homepage for their own use.

#### ***4.2.4 Ford Motor Company***

Ford Motor Company is the second largest automaker in the world. The company has nearly 335000 employees and operates in six continents. So the company needs access to accurate and timely global news and business information in order to maintain its position at the top of the industry. Research Library and Public Affairs have a crucial importance in the business of the company (Ford Motor Case Study at [www.factiva.com](http://www.factiva.com)).

##### **4.2.4.1 Research Library and Information Services**

This service comprises the core activity of the Ford Research Community. The Research Library takes request from analysts and engineers of the company and provides them with a comprehensive view of information. The employees of the company have access to a well-maintained, deep archive of industry-specific and general business

information. The Library of the Ford Co. has been supported and enhanced with a Factiva solution. The web site takes nearly 30 million of hits in the year 2002. So the demand for such a flexible solution is very high among the employees of the company. The Factiva tool has been able to integrate numerous important sources into one product and this has made searching for information easier and more convenient for the users. The site is updated frequently with fresh information and it has a global coverage. After the implementation of the Factiva tool the amount of the non-English language local news have increased. The tool provides also personalization and other improved administration tools (Ford Motor Case Study at [www.factiva.com](http://www.factiva.com)).

Future development has also been considered by the Ford Co. The central issue of the future developments will be further personalization of information. The company is conscious of the fact that specified information is highly needed by its personnel.

#### **4.2.4.2 Public Affairs**

Another important issue for the Ford Co is the representation of the company in the global presses hence the view of the customers is important for them and for their business. Prior to the Factiva solution the company had the daily Press Digest. But the Digest was local and most of the Ford personnel in other countries and even continents could not be reached. Factiva provided the Clip Sheet to the Ford Co. The site that has been designed by the Clip Sheet is now available to all the Ford employees worldwide via the intranet of the company. Factiva covers a huge archive of global content for the Ford Co. Local, national, and international press is being watched constantly for this reason. Ford Co. further wants to enhance the Clip Sheet by providing news to the business units relevant to their departments (Ford Motor Case Study at [www.factiva.com](http://www.factiva.com)).

#### **4.2.5 Nestlé**

Nestle is world's largest food company, which has more than 230000 employees and 500 factories all over the world. The company is highly decentralized and because of this reason the localized information is essential to the decision-making processes of the company. The company responds rapidly to the local market needs and because of this reason holds the competitive advantage at its hands. The company has begun to work on a corporate intranet at 1997 in order to create support for five important business processes.

These business processes are: purchasing, marketing, business intelligence, technology and human resources management. The aim of the company was to create a global learning and collaborative environment that would lead to long-term growth and competitiveness of the company. In 1999 the company introduced the Nestle Intranet Kit Assistant (NIKITA), which complemented the SAP enterprise resource planning action. E-mail is another important tool that has been widely used by the employees of the company to make communication faster and more efficient. So the intranet is a very important tool in the functioning of the company because of its immediacy, globality (Nestlé Case Study at [www.factiva.com](http://www.factiva.com)).

The managers of the company have realized that if the external information were delivered to the users directly the company would save millions of dollars each year by reducing the employees' search time. So the company adapted the Factive solution to solve this problem and save money annually. Factiva Publishers were chosen as the solution. Factiva Publishers allowed the customized distribution of high quality business information and global news to the company intranet. The quality of the provided data and the credibility of the sources were the reasons for the choice of Factiva. Factiva Publisher delivers content from 6000 sources worldwide. Through the Page Builder tool of the Publisher it can be seamlessly integrated to the intranet of the company. Other tools that are being used by the company are the Factiva Intelligent Indexing, a customizable stock portfolio; and Editorial Interface for internal publishing. The feedbacks from the users about the Factiva Publisher have been very positive. The company has gained in employee activity, awareness, and communication.

The Company has a future project too. The project is named as the GLOBE meaning Global Business Excellence. The aim of the project is to improve the performance and the operational efficiency of the company business worldwide. The project has been launched in 2000 and will be completed by 2006 (Nestlé Case Study at [www.factiva.com](http://www.factiva.com)).

#### ***4.2.6 The Microsoft Corporation***

Microsoft is the leading firm in the software, services, and Internet technologies both for business and personal computers. The company has more than 50000 employees worldwide. The company has increased significantly in the recent years and the demand for information about the worldwide business news and business information has risen. So

the company has created a new business portal named <http://library>, to match the increasing demand for information.

The Information Service group of the company is responsible in delivering online resources, collections, and research information. The IS group is a part of the Knowledge Network Group. The mission of this group is to connect employees, and knowledge to gain competitive advantage in the market. Microsoft collaborated with Factiva in creating its new web site. The company has implemented Factiva Select and Factiva.com (Microsoft Co. Case Study at [www.factiva.com](http://www.factiva.com)).

The ease that the employees have in seeking for knowledge and authoritative information is essential to the business of the company. The aim of the company is to reduce the time spent by the employees while searching for relevant information on the web. So this idea was used when designing the new web site <http://library>. The company had the following business requirements:

- Reach the best available information sources,
- Get integrated business and external information,
- Provide information in context,
- One place to search for all the relevant content.

So the company has chosen to work with the Factiva tools because these tools met all of these requirements of the company. The new site allows users to make searches both about the internal and the external content through one search interface. Factiva provides information from 8000 sources from 118 countries and in 22 languages. This global feature of Factiva made the Microsoft to choose this company's tools as the solution. Factiva offers Topic Pages, News Search, and News Alert to Microsoft (Microsoft Co. Case Study at [www.factiva.com](http://www.factiva.com)).

*Topic Page:* Each topic page has related subtopics that provide relevant information about specific issues. Subtopics contain the most relevant information including internal and external information. The Microsoft users can access the latest information about the topics by entering the subtopic pages.

*News Search:* Microsoft users can search both the internal and external content from one page. Factiva.com is also available as an additional resource via this page.

*News Alert:* Microsoft editor's select key news based on priority initiatives. Users can register for daily and weekly alerts as well as internal and external content.



#### **4.2.6.1 Benefits of Factiva to Microsoft**

Implementing a Factiva solution has had many benefits for the Microsoft Corp. These benefits are: increase in the content set, ease of use, user interface in multiple languages, better integration of popular features, transparent authentication.

*Increase in the content set:* Factiva.com offers more solutions than the previously existing system. The Microsoft Company, in order to become leader both locally and globally needs multiple languages content.

*Ease of use:* Using the Factiva.com the users can search the entire content set with just one query, set up advance search parameters utilizing Factiva Intelligent Indexing, save articles in a virtual briefcase, track favorite new topics, and quickly find information on companies.

*User Interface in multiple languages:* The Factiva solution is especially valuable for the users outside the USA. The site, Factiva.com is now available in English, German, French, and Spanish languages. Italian, Japanese, Chinese, and Russian language pages are being developed.

*Better integration of popular features:* The features of Factiva.com are designed to work together. So users can conduct a search, save it as a track folder to provide active monitoring of the subject.

*Transparent authentication:* Users do not need to go through long log-on procedures. The tool is listed on the Library portal and by clicking it users can go directly to the search engine.

Employees responded very positively to Factiva.com and within few months the site had more than 4000 Microsoft users (Microsoft Co. Case Study at [www.factiva.com](http://www.factiva.com)).

#### ***4.2.7 The Undersecretariat of Foreign Ministry for Trade***

##### **4.2.7.1 History of Undersecretariat of Foreign Ministry for Trade**

After the World War I the foreign trade of the Ottoman Empire has been mainly conducted via a customs policy and there have been no need for another foreign trade policy and organization in the country. But this situation has changed with the establishment of the

Republic. The first Ministry for Trade has been established at 1920 at the first parliament. After this initiation and after the establishment of relations with other countries abroad it has become necessary to send Trade Representatives outside with the task of arranging the relations between Turkey and other nations. The undersecretariat is an organization that is working as subordinate to the Ministry for Foreign Trade and the organization (the undersecretariat has the following service units in its command:

- Exports General Secretariat
- Imports General Secretariat
- General Secretariat for Treaties
- General Secretariat for the EU
- General Secretariat for Assessment

The tasks of the undersecretariat can be listed as in the following:

- To help to determine the policies for foreign trade
- To arrange the trade relations within the framework of these determined trade policies
- To monitor these trade relations which has been arranged both within and without of the country
- To improve these trade relations

So as it can be understood from its tasks that have been listed above the undersecretariat has relations with many organizations and firms both within and without of the country. In order to conduct these relations and in order to establish new relations with new organizations the undersecretariat needs to constantly gather information about trade and

trade organizations as well as trading firms. So the undersecretariat is in constant need of up-to-date, relevant, secure and qualified information and news. For this reason the undersecretariat also takes professional help form private-owned firms

#### ***4.2.7.2 Factiva and Undersecretariat of Ministry for Foreign Trade***

The Undersecretariat Foreign Trade Ministry of Turkey has also begun to utilize the services of Factiva. Formerly they have used he services of another Knowledge Management firm named as the Reuters Business Briefing. The Reuters Business Briefing had been managed by Factiva since 1998. But the company had to upgrade its system and for this reason they have stopped their services. After this it has become necessary to find another Knowledge Management firm and due to its relation with Reuters Business Briefing Factiva was known to the ministry of foreign trade. Hence they have begun to use the Factiva system.

Passing to the Factiva system has brought many benefits to the ministry of foreign trade. As said earlier Factiva was already the service provider at the Reuters Business Briefing. But by taking the service directly from the Factiva the ministry has begun to obtain service with more content. In addition to this the interactivity has increased very much.

The ministry of foreign trade uses Factiva out of several certain reasons. The officers at the ministry frequently prepare and use reports that are used in the bureaucracy. While preparing these reports it becomes necessary to use both past and present (updated) information and news. Factiva provides such kind of information. Hence the firm mainly

becomes useful for this reason. The subjects that are frequently searched at the Factiva database are: economy, politics, trade, foreign trade regimes and politics.

The use of Factiva is restricted in the foreign ministry office. Only a limited number of people have access to the Factiva website and also database. So there are only four people or officer at the ministry of foreign trade who use and share Factiva database and services. The reason for this restriction is the need for secrecy due to the working environment which is the ministry of foreign trade. The information obtained from the Factiva database is only shared with the Minister (Kürşat Tüzmen) himself.

Factiva, as said earlier has contributed much to the ministry of foreign trade in their business and in their other operations. The officers at the ministry can now find the relevant information in the most rapid way possible with ease. In addition to this the ministry of foreign trade has no problems of security which is also very important for their part. So Factiva enhanced the system of ministry of foreign trade in every respects. For this reason the officers at the ministry of foreign trade do not think to change their service provider even though there are many other firms who have offered cooperation in the field of Knowledge Management e.g. The Economist Intelligent.

There are also several minor problems between the Factiva Co. and the ministry of foreign trade. The ministry of foreign trade is a state-based and non-profit organization. Hence it has a certain determined approach which is cannot be changed easily. For the ministry of foreign trade Service comes first and before any other thing. Money is secondary in the affairs of ministry of foreign trade. On the other hand Factiva is a private-owned

organization and for this reason even though the provide service is very important for the organization money has the first place in its affairs. The reason for this is obvious. The firm has to achieve a certain revenue and a certain profit in order to survive in the market. So this difference in the approaches towards service and money had become a problem between the ministry of foreign trade and the firm. But the problem has been overcome by mutual efforts.

### ***4.3 Factiva KM Products and Tools***

Factiva offers products in three different categories, which are the workflow, current awareness, and research. The following Factiva products exist.

#### ***4.3.1 Workflow Tools***

Factiva products that deal with the enhancement of workflow are as follows: Factiva Intelligent Indexing Taxonomy Feed, Factiva, Select, Factiva Fusion, and Factiva Publishers ([www.factiva.com](http://www.factiva.com)).

##### **4.3.1.1 Factiva Intelligent Indexing Taxonomy Feed**

Business information needs to be divided to categories in order to enhance searching. By applying a high-quality taxonomy companies can increase the efficiency and speed of their personnel and this will have an impact on the decision-making processes of these personnel. FIITF allows the users to make simple taxonomy based searches. The tool helps the users:

- Make intuitive navigation through subject hierarchies,
- Conduct context based search and in this way remove ambiguity,
- Divide the search results into manageable pieces,
- Link the users to the information, which they don't have known existed.

The internal and external content will be organized by Factiva to allow browsing, filtered searching, and integrating the content to workflow of important business applications ([www.factiva.com](http://www.factiva.com)).

#### **4.3.1.1.1 Structure and Delivery**

FIITF provides a hierarchical tree-structure, definitions have been labeled, and multiple alternative names can be given to each terms in the taxonomy. Information can be translated into several languages, such as English, French, German, Spanish, Italian, Russian, Japanese, and Chinese. Data is being delivered in the XML format and can be accessed via a password protected web site, or via FTP ([www.factiva.com](http://www.factiva.com)).

#### **4.3.1.1.2 Implementation Support**

Factiva helps the companies who wish to implement the FIITF. The company provides advice and technical assistance with the use of a simple support frame covering strategy, licensing, and implementation help. The tools and the services can be provided in any combination according to the need of the client because of the modular structure of the FIITF. The delivered services are: taxonomy needs assessment, workshop or roadmap; help with application of terms, taxonomy mappings, and maintenance and quality control and procedures ([www.factiva.com](http://www.factiva.com)).

The Factiva Intelligent Indexing Taxonomy includes:

- i) 300000 company codes,
- ii) 350+ regional terms,
- iii) 750+ industry terms,
- iv) 400+ news subject

#### **4.3.1.2 Factiva Developer's Kit**

FDK is a Web Service, which offers XML-based application programming interface. This interface allows developers to access to Factiva platform about the programmatic matters. The FDK is platform independent, uses standard Internet technologies, and enables fast and cost-effective solutions. Users can customize the FDK according to their needs and reach the relevant news, and business information as well as can integrate these data and information into their workflow ([www.factiva.com](http://www.factiva.com)).

#### **4.3.1.2.1 Organizational Benefits of FDK**

FDK reduces the time spent by the users in reaching the necessary information and news they search for. In this way they gain time that can be used to focus on more profitable tasks and make better business decisions. Users need less training for using the tool. In addition to this FDK lowers the future IT costs and protects the investment because the tool is extensible. FDK is based on W3C standards hence the users can add new features to it as they need in their specific tasks, and job function.

#### **4.3.1.2.2 Capabilities of FDK**

FDK possesses the following capabilities.

*Authentication:* Users can log into Factiva platform and to their user accounts.

*Membership:* Users are registered, create their user IDs and set their user permission information.

*Search:* Searches can be conducted in the Factiva Platform content.

*Newsstand Service:* Users can create integrated News pages by surfacing the group of Newsstand publications.

*Retrieval Services:* Content can be retrieved from the Factiva database.

*Track Service:* using simple alerts the results of simple searches are delivered to personal folders.

*Symbology Service:* Companies can use the FIIT codes and perform searches to obtain more relevant results.

*Editor Fields:* editors update the content and users can display this content and see also the editorial notes, comments, and flags.

*Market Data Service:* Stock quotes, market exchange rates, market indices, and funds or corporate bond data can be obtained.

*Numeric Data:* Company reports, competitor information, can be obtained ([www.factiva.com](http://www.factiva.com)).

### **4.3.1.3 Factiva Publisher 3.8**

FP is powerful software and allows the users to customize portal functionality with information feed and internal content resources. FP has features as content integration, presentation control, and customizable Web interfaces. (See appendix3)

#### **4.3.1.3.1 Organizational Benefits of the Publisher**

Publisher helps the organizations to build customized portal functionality with the tool Factiva Select XML. Using the Publisher employees will gain access to the news and content they need for their specific jobs. Using the Publisher organizations can build one official news repository for their Intranet; can obtain the best quality news and information, which would increase competitiveness of the firm in a global business environment. Publisher also helps the right information to get to the right people ([www.factiva.com](http://www.factiva.com)). The Publisher is composed of many components, which can be given as follows:

*User Interface:* Has a simple portal interface through which all the content can be accessed. Users can customize the use of this interface and access multilingual content forms the most important resources.

*Administration Interface:* Allows designated administrators to schedule content delivery, set up article archives, manage user, and define custom components.

*Editorial Interface:* Editors and content managers can set up and manage folders, monitor usage, author, edit, and publish content.

*Page Builder:* Personalized web pages can be created and the Factiva content can be integrated to these pages.

*Factiva Finder:* Local database can be searched using this tool.

The Publisher tool of Factiva is very flexible and can be implemented on both the small and large scales. Factiva Publisher allows integration with Microsoft Outlook. Users can access their address book, view and manage their calendar, read e-mail, and review their tasks from the Publisher Interface.



#### **4.3.1.4 Factiva Fusion**

Factiva Fusion is a content enhancement tool. It is built in order to make categorizations and create relationship between the business content sets according to a single set of terms. Using Factiva Fusion the organization will be able to capture value and improve their business productivity. Business productivity is increased by enhancing delivery of personalized information and by shortening the work cycle. Categorization is an important term and is related to content management. Categorization is gaining importance for the organizations. But some aspects of categorization, which are crucial elements of it, have not changed ([www.factiva.com](http://www.factiva.com)). These are:

- As information types differ different categorization methods are required,
- Human element is essential,
- Customer data should be searched through a taxonomy of company codes,
- Pre-existing metadata is valuable.

The implementation of Factiva Fusion consists of different phases, which are the discovery phase and the categorization phase.

Discovery: Initially a through catalog of the potential knowledge assets of organizations is created by the Factiva Engine. This is done in two other phases in a stepwise fashion. The first step is composed of finding the content and includes the following steps:

- i) Content is gathered from organizations file shares, intranet, and premium sources,
- ii) Important information is obtained from internal databases, such CRM etc.
- iii) Incorporate web content and Factiva's news and business information,
- iv) Factiva Fusion enables document-level authentication ([www.factiva.com](http://www.factiva.com)).

The second phase of the discovery is composed of standardizing the content and includes the following steps:

- i) Content is being standardized by a Unicode conversion to the XML structure,
- ii) Content is normalized in any language. In this way search ability is improved.
- iii) Data from legacy systems is converted to Factiva Fusion XML format,
- iv) Support different types of document formats.

After the initial discovery phase has been finished the categorization phase begins. The categorization phase further consists of two other phases, which have a stepwise fashion. The first phase consists of classifying the organizational content and the steps are as follows:

- i) Factiva fusion includes a license to another Factiva product, which is the Factiva Intelligent Indexing taxonomy. Categorization training of data from Factiva's core site is being done. This data is being updated daily.
- ii) Factiva Fusion supports the existing taxonomies and custom extensions. Other new taxonomies are created by the experts at Factiva.
- iii) Codes are applied to organizational documents and this increases the quality and control ([www.factiva.com](http://www.factiva.com)).

The second phase of categorization consists of delivering knowledge. The following steps are included (See appendix 6 ):

- i) With the help of its XML content format Factiva Fusion enables targeted searching.
- ii) Factiva Fusion delivers a powerful XML feed,
- iii) The content of Factiva can be searched in many portal applications of the users,
- iv) Content is also accessed from its original location.

#### **4.3.1.4.1 Architecture of the Factiva Fusion**

The tool is supported in the following platforms: Microsoft Windows 2000 Server, and Red Hat Linux 7.2 Server. The architecture of the tool consists of the following features:

- i) With the help of SOAP-based XML interfaces the web service provide means to integrate, control, and optimize content(See appendix 4),
- ii) XML allows for standard interfaces(See appendix 4),
- iii) The tool possesses advanced search capabilities. Relevant results are delivered over both internal and external content,
- iv) Has a browser-based graphic user interface ([www.factiva.com](http://www.factiva.com)).

## ***4.4 Research Tools***

The research tools of Factiva consist of the following.

### ***4.4.1 Factiva Search Module***

Searches can be made from over 8000 sources in 22 languages. Provides a single point access to the archive and in this saves time. Integration of the system is easy. No hardware is required ([www.factiva.com](http://www.factiva.com)). (See appendix 5).

### ***4.4.2 Factiva Public Figures & Associates***

Tightens controls against money laundering and illicit payments. Detailed information on more than 340000 profiles can be accessed from single point. Reduces user time ([www.factiva.com](http://www.factiva.com)).

### ***4.4.3 Factiva Track Module***

Managers, executives, sales personnel of organizations can follow the latest information about their competitor firms, customers, or key markets timely. A collection of news from 120 wires is being offered to the users. Users can individualize the Module in order to follow very specific events that are relevant to them. Administrators can control and prioritize the delivery of content. Saves user time ([www.factiva.com](http://www.factiva.com)).

### ***4.4.4 Factiva Quotes Module***

Important market data is being collected from over 80 exchanges, 150 spot rates, 300 cross-rate combinations, and thousands of corporate bonds. Organizations can access to the global latest news. Users can access to market data without leaving their intranet and in this way can save much time ([www.factiva.com](http://www.factiva.com)).

### ***4.4.5 Factiva Alerts***

Users can follow the important events about their business. Delivers global news. If used with Factiva Intelligent Indexing can alert the users about their specific areas of interest ([www.factiva.com](http://www.factiva.com)).

## 5. CONCLUSION

The distinction between knowledge and data and information have been shown in the first section but as it shown later from the viewpoint of business organizations KM procedures include the access to information and data. From the data and the information about the market, the competitors, and the customer needs and preferences the business organizations derive their knowledge base. The ease of access to information is very important for business organizations, but the information and data are found as scattered through a variety of media. Hence the combined effort of many people and organizations are needed in order to obtain sufficient and high quality data and information. As the markets have grown and the competition has arisen among the firms, their need for data and information has increased, significantly. The traditional methods of searching and gathering data have failed in reaching the data and information and in delivering them to the business organizations. Thus, obtaining data and information has become very costly for the organization.

The development of Information Technologies has helped the organizations in solving this problem and allowed them to bridge the gap between huge amounts of scattered data and the method of gathering these data. New solutions have been offered to business organizations, and all of these solutions mainly include IT as a powerful tool. Firms that deal with providing Knowledge Service to business organizations began to develop different kinds of tools. The main identified problems were the amount of data, its scattered fashion, the need for a single place of access to these data, the need for specialized information, etc. The new tools offered solutions to business organizations. Now business organizations are able to reach a Web site and use the data that is uniquely offered for their use. Hence many firms have started making use of these solutions, and these firms have gained a lot of benefits from these tools and Web sites that have been offered to them. Productivity has risen.

Employees have been spending less time in searching information through multiple sources. This new service is performed by KM firms for them and relevant and high quality data is offered to the firms via one single interface. In addition to this, organizations can integrate these new tools and web sites to their intranets and databases and thus allow all of their employees to access to relevant organizational data about anything with great ease.

Factiva is the firm that provides information technology solutions to the knowledge management. From the Factiva web site many information technology tools concerning knowledge management can be found. Factiva web site also provides us with information about the different knowledge management problems and solutions that the firms have. All of these different knowledge management problems and solutions have been studied in the case study part.

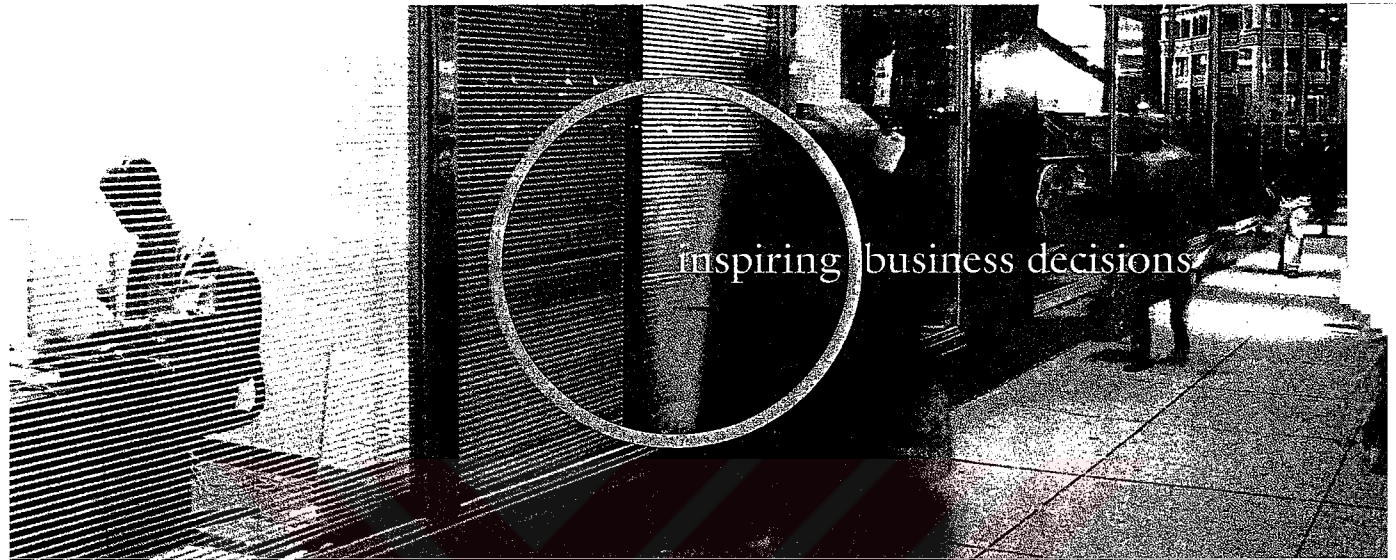
The future of the KM and KM technologies can be deduced from the developments and changes that have been done thus far. As most of the case studies show, organizations have become the next address of education and knowledge after universities. As a result, a different type of firm will appear parallel to the increase in the cost of knowledge. This is the knowledge- driven, knowledge-gathering, knowledge-producing, and even knowledge-selling firm. In short, the industry of the future will carry the sign of knowledge.



# activa

Company Overview

## APPENDIX 1



inspiring business decisions

### activa, a Dow Jones & Reuters Company

Dow Jones & Company and The Reuters Group combined their interactive intelligence services, Dow Jones Interactive® and Reuters Business Briefing.

activa has inherited the strengths of our parent companies. Journalistic integrity. Personalized service. Cutting-edge technology. Personalized service. We apply these to every client we serve, from Fortune Global 500 companies to individuals seeking instant business answers.

Our mission is to be the indispensable provider of business information which inspire our customers' best business decisions, globally and locally.

### Global Business Information Provider

Across the world, business professionals use Factiva products to acquire critical answers — while avoiding information overload. Factiva products quickly deliver targeted content from a unique collection of world-class news and industry sources. Factiva Intelligent Indexing is applied to this content set so that users can find the critical facts they need quickly.

### Enterprise Information Management Expertise

Factiva delivers more than the content and tools that fit your unique corporate environment. Factiva also offers expertise, such as our technical resources, implementation service specialists and enterprise rollout consultants — all of whom help you derive maximum value from your information strategies.

**factiva**  
Dow Jones & Reuters

## Content for a Multifaceted Workforce

Factiva gathers and organizes both local and global sources from 118 countries in 22 languages. This collection is organized by Factiva Intelligent Indexing, making it easy for professionals to locate the precise facts they need about a company, industry trend, region or subject — virtually any topic that matters to their business objectives.

## World-class Web Services

Factiva's news and business research Web sites:

**Factiva.com**

*The successor to our established Web-based services:*

**Dow Jones Interactive**

**Reuters Business Briefing Search**

## Integration Tools

The tools in the Factiva Integration suite provide you with the best technology for integrating world-class news and business information into your intranet or portal.

### Factiva Publisher

*A ready-to-use content feed and server application that provides interface tools and the ability to integrate external and internal content.*

### Factiva Search Module

*A flexible research tool that provides access to a searchable archive from within your intranet or portal interface.*

### Factiva Track Module

*A flexible current awareness tool that displays filtered news within your intranet or portal interface.*

### Factiva Select

*A filtered XML content feed that allows you to host and integrate news into your own content management system.*

### Factiva Facts:

*Factiva products are on the desktops of more than 1.5 million users.*

*84% of the Fortune Global 500 companies have accounts with Factiva.*

*Factiva provides content from 118 countries, written in 22 languages.*

*Factiva delivers articles from 4,000 Reuters and Dow Jones journalists worldwide — just minutes after this news appears in real-time services.*

*Factiva has more than 800 employees and operates in more than 34 countries.*

*Factiva products deliver access to nearly 3,000 sources, such as:*

- local and regional newspapers
- trade publications
- business newswires
- press release wires
- media transcripts
- news photos
- business-rich Web sites
- investment analyst reports
- market research reports
- country and regional profiles
- company profiles
- historical market data

*Factiva Consulting helps you overcome technical challenges related to large-scale information rollouts. Solutions range from introducing a password verification system to integrating Factiva content with your internal information.*

*Factiva Partner Network includes leading software companies such as IBM, Lotus, Microsoft, Oracle and Plumtree. Through the network, Factiva provides ready-to-use news and business information tools for integration into your corporate portal or CRM system of choice, removing the need for custom programming.*

## Committed to Personalized Service

Factiva delivers a number of value-added services to support you after the sale. From an alliance program for information professionals to our award-winning Enterprise Roll-out Program, Factiva ensures that your experience with our products benefits both your company and the individuals who launch and support them. In addition, Factiva customer service teams are based in Europe, Asia and the Americas, employing individuals who know the language and culture in which you operate.

To find out more about Factiva, visit [www.factiva.com](http://www.factiva.com) or contact us at [www.factiva.com/moreinfo](http://www.factiva.com/moreinfo).



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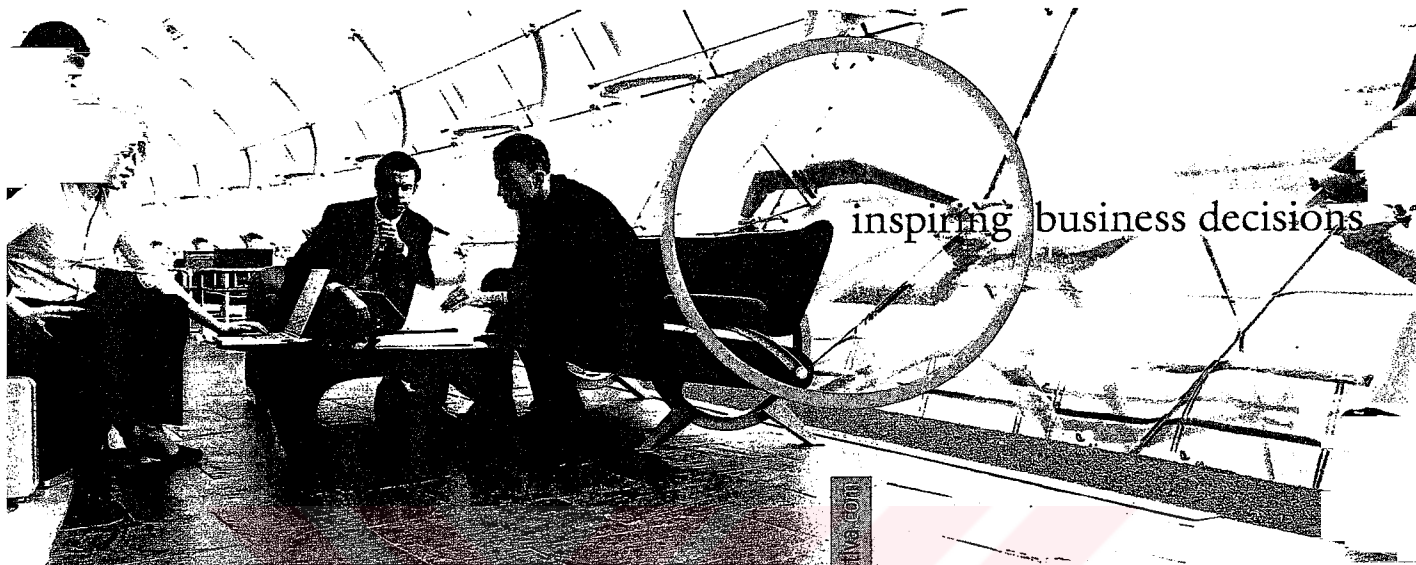
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# activa.com

the basis of a good decision

## APPENDIX 2



### Best Choice for Global Business Information

It has never been more important to remain aware of changes that may affect your business. Factiva.com equips your whole organization with the news and business information you need to stay current and competitive. Researching and monitoring companies, industries, markets, and financial affairs—or any news—has never been easier. Our award-winning, next-generation information is easily accessible to your entire enterprise via the Web. With Factiva's 20 years of experience operating Dow Jones Interactive and Reuters Business Briefing services, Factiva.com brings together the best of both with innovative and powerful functionality that empowers your organization with the information needed to make better business decisions.

### “Masterpiece of User Empowerment”

As our reviewers are describing Factiva.com. Built from the ground up to support and empower your entire enterprise, Factiva.com brings you specialized, relevant information from nearly 8,000 publications—from 118 countries in 22 languages. Unmatched global reach, powerful searching, versatile tracking, customization, new administration tools, and our dedication to supporting your organization before, during and after implementation make Factiva.com the best choice for business information.

“Nothing I have encountered in over 20 years of evaluating online information services has been as good as the Factiva service (Factiva.com). Factiva will be the standard that others will have to match for many years to come!”

— Anthony Wood  
*Business Information Searcher*

  
**factiva**<sup>™</sup>  
Dow Jones & Reuters



# y Current and Aware

com makes it easy for your entire organization to stay on top of the latest business developments. Monitor industries, companies, titors, news, stock quotes—or any search topic you come up with—at the click of a button. Track folders are continuously updated, get breaking news and information as it happens. With e-mail and wireless news distribution options, Factiva.com makes sure you get vs you need, no matter where you are.

# ws Like Never Before

ews Page you can browse the headlines and text of more than 80 of the world's most influential magazines and newspapers from 18 es. That includes same-day availability of our unique combination of *The New York Times*, *The Wall Street Journal*, *The Economist*, *The Morning Herald*, *Financial Times*, *Handelsblatt* and the *South China Morning Post*. Of course, personalization and drill-down nality make it easy to find the news you want.

# ng it all Together

Pages organize and customize your most important information. Every enterprise and every user has specific needs and practices. why each user can save up to five Personal News Pages—knowledge centers that put business information where you need it.

your News Page your home page

on top of global market activity  
news and quote lists

up shared News Pages for an  
e group, region, office, or company

ow topics of regional and current  
rest with pre-built Factiva News Pages

commonly used searches

itor breaking news through  
ding folders

e tracking results delivered to  
r e-mail or PDA

current with leading magazines  
newspapers

The screenshot displays the Factiva News Page interface. At the top, there are navigation links for 'interface language', 'briefcase', 'client billing', 'usage reports', 'company list', 'quotes list', 'preferences', and 'logout'. The user is identified as 'Dow Jones & Reuters'. Below the navigation bar, there are search and track options, and a 'News Pages' section with 'My Personal News Page' and 'Creates New Page' buttons. A 'World Indices' table is visible, showing data for DJIA, FTSE 100, and Nikkei 225. The main content area features several news sections: 'THE WALL STREET JOURNAL' with five headlines, 'South China Morning Post' with four headlines, and 'The Daily Telegraph' with three headlines. A 'Track Folder Alerts' section is at the bottom, listing 'Industry News' and 'Publications' with a 'View All' link. A sidebar on the left contains 'Select Instruments' (Global Stock, Symbol, Name), 'Web Resources' (Business Tools, Calculators, Company Info, Reference, Technology, Travel), and a 'Product Learning Schedule' link.

World Indices	Last	Change
• DJIA	8,283.70	141.42
• FTSE 100	4,611.00	15.90
• Nikkei 225	9,222.12	0.00

Updated: 10:02, 5 September 2002  
Delayed per Exchange rules.  
Quotes in local currency.  
Sources: Reuters, Investor

### THE WALL STREET JOURNAL

Thursday, 5 September 2002 | Front Page

1. U.S. Auto Sales Accelerated 13%, Driven by Deals --- August ...  
The Wall Street Journal , 5 September 2002, 3018 words, (English)
2. Business and Finance  
The Wall Street Journal , 5 September 2002, 490 words, (English)
3. Boom and Bust At Williams Cos., Two Trendy Bets Yield Snake ...  
The Wall Street Journal , 5 September 2002, 2094 words, (English)
4. Honoring 'Heroes' Of Sept. 11 Stir A Delicate Debate ...  
The Wall Street Journal , 5 September 2002, 1912 words, (English)
5. 'Shared Savings'; Grocery Distributor Squeezes Suppliers at ...  
The Wall Street Journal , 5 September 2002, 2255 words, (English)
6. World-Wide  
The Wall Street Journal , 5 September 2002, 623 words, (English)

### South China Morning Post

Thursday, 5 September 2002 | Front Page

1. Cathay, Dragonair on collision course Airline seeks ...  
South China Morning Post, 5 September 2002, 653 words, (English)
2. TV makers win tariff fight.  
South China Morning Post, 5 September 2002, 672 words, (English)
3. Shareholders reject Lai Sun deal.  
South China Morning Post, 5 September 2002, 532 words, (English)
4. HK\$1,000 banknote.  
South China Morning Post, 5 September 2002, 675 words, (English)

### The Daily Telegraph

Thursday, 5 September 2002 | Front Page

1. News - British troops head for Iraq war Advance parties ...  
The Daily Telegraph, 5 September 2002, 948 words, (English)
2. News - Barrymore silent over drugs at death party.  
The Daily Telegraph, 5 September 2002, 431 words, (English)
3. News - Stop Saddam or we will, Bush tells UN.  
The Daily Telegraph, 5 September 2002, 813 words, (English)

Track Folder Alerts

Industry News | Publications | View All

1. Tyco Electronics Canada and TVE Canada Announce Distribution ...  
Canada NewsWire , 13:37, 9/5/2002, 582 words, (English)
2. TV Guide names John Loughlin president of publishing group  
Associated Press Newswires , 13:38, 9/5/2002, 202 words, (English)
3. Take-Two Software Posts 3rd-Quarter Profit on Strong Video ...  
Dow Jones Business News , 06:53, 9/5/2002, 270 words, (English)
4. Essential Realty, Inc. Announces the Appointment of Steven ...  
Business Wire , 12:04, 9/5/2002, 836 words, (English)

Many more sessions added to Factiva's Product Learning Schedule  
Learn tips and tricks to get better search results and save more time  
World News: Top Headlines

News Page—everything in one place

# World's Most Valued News and Business Information

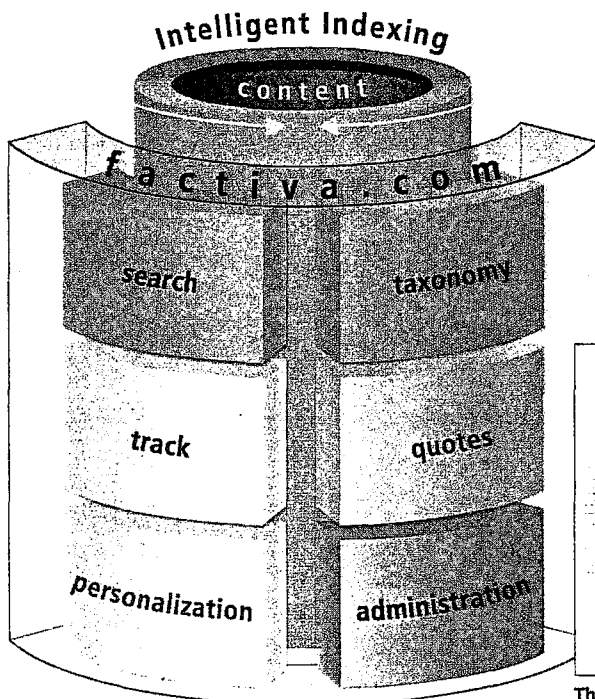
nation service is only as good as its content, and Factiva.com offers nearly 8,000 publications from 118 countries in 22 languages. Whether monitoring competitors, regional trends, or researching news, Factiva.com has the quality and scope of sources you need to stay ahead.

<b>Content:</b>	Description:
<b>Newspapers</b>	Same-day and archival coverage of the world's most influential newspapers, including <i>The Wall Street Journal</i> , <i>South China Morning Post</i> , <i>The Times</i> , <i>El Pais</i> , <i>Les Echos</i> , and <i>Süddeutsche Zeitung</i> — as well as local newspapers from every corner of the globe.
<b>Magazines</b>	General business and the "must-read" industry publications for knowledge-driven markets, including <i>The Economist</i> , <i>Finanz und Wirtschaft</i> , <i>Satellite News</i> , <i>Computerworld</i> , <i>Oil &amp; Gas Journal</i> , and more.
<b>News wires</b>	Breaking news from Dow Jones, Reuters and The Associated Press, as well as PR Newswire, M2 Presswire and other regionally focused and industry newswires.
<b>Media programs</b>	Transcripts from BBC, CNN, ABC, CBS, NBC, Fox, and more.
<b>Web sites</b>	The world's top news and business Web sites in more than 20 languages.
<b>Company reports</b>	Customized profiles of companies from around the world. This includes D&B information on over 36.5 million companies, and detailed company and industry research from Investext—all fully integrated with Factiva.com.
<b>Images added each week</b>	Photographs from Reuters and Knight Ridder capture the pressing events of the day.

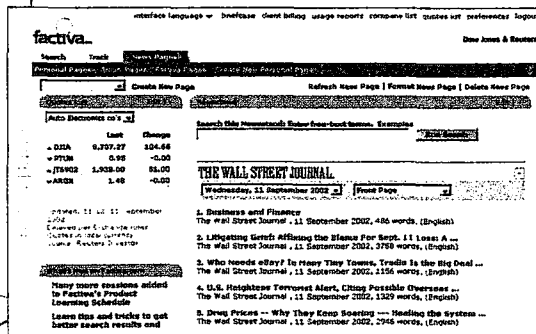
to know how we cover your industry, go to [www.factiva.com/sources](http://www.factiva.com/sources)

## Benefit from Our Open Systems Platform

Benefit from Our Open Systems Platform is one of many Factiva products based on a new open systems product platform, which is the common foundation for our products and any future development. The Factiva Platform is built around a powerful and flexible new XML-based architecture that allows content and functionality to be separated from the user interface. Customers benefit because all Factiva products share the same key architecture at the systems level: sources are processed the same way, indexing is perfectly consistent, key mechanisms like searching and tracking are similar, and authentication and user administration are universal across our product line. Because of this, it is easier to implement a complete news and business information solution by Factiva than from any other vendor.



Factiva.com leverages the full range of capabilities of the Factiva Platform: world-class content, consistent indexing, and a user interface that brings together all the productivity-building tools that your company needs to stay competitive.



The Factiva.com User Interface

# Build Powerful Searches with Ease

Standard Search screen offers an elegant and intuitive interface into Factiva's unmatched, powerful capabilities. By combining a Factiva Intelligent Indexing™ term, with a search term, anyone can get pinpoint accurate results. All you have to do is click on search terms and results from our browsable categories.

Make powerful searches with Factiva Intelligent Indexing™ that get you the information you need faster.

- Begin by selecting the industry, region, subject, or company you're looking for and then drill down through our list of categories.

- Pinpoint your search with free-text terms for better results.

- Select the sources you want to search, or query Factiva's entire database all at once.

- Save searches you might need again, and post them on your News Page to stay current with new developments.

- The Factiva.com interface is available in English, French, German, Italian, and Spanish, today. Additional language interfaces forthcoming.

Interface language ▾ briefcase client billing usage reports company list quotes list preferences logout

factiva™ Dow Jones & Reuters

Search Track News Pages

Free-text/Indexing Saved Searches Company Screenings Quotes Company Quick Search

Select from the indexing categories below:

**Industry** Or And

- Region Advertising/Public Relations ①
- Subject Advertising ①
  - Direct Mail Advertising ①
  - Electronic Advertising ①
  - Film/Cinema Advertising ①
  - Media Buying ①
  - Media Planning/Representation ①
  - Outdoor Advertising ①
  - Print Advertising ①
  - Radio Advertising ①
  - Sales Promotion ①
- Company
- Look up

**Indexing** Industry (Electronic Advertising Or Media Buying)

Free-text: click through Full Article

All Content  Your Current Source List

Or only the ones below:

- Publications
- Pictures
- Web Sites
- Reports

Date: In the last 3 months  
In the last day  
In the last week  
In the last month  
In the last 3 months  
In the last 6 months  
In the last year  
In the last 2 years  
All Dates  
Enter date range...

## Advanced Search Screen

More Like This

Factiva Intelligent Indexing™

Industry: Computers/Electronics

Subject(s): Corporate/Industrial News

Region(s): European Union Countries, European Countries, North American Countries, United Kingdom, United States, United States - California, Northeast U.S., United States - New York, Southern U.S., United States - Texas, Western U.S., Western European Countries

More Like This

A list company reported that income to date is up from 20 million global public and private companies.

Industry: Computers/Electronics, Marketing, Internet/WAR Hardware, Printing/Publishing, Newspaper Publishing, Household Goods/Furniture Stores, Furniture/Home Furnishings Stores, Health Stores, Retail/Restaurant/Casinos, Clothing, Advertising, Electronic Advertising, Marketing Consulting, Accounting/Consulting, Advertising/Public Relations, Clothing/Texiles, Consulting, Computing, Internet/Online Services, Investing/Securities, Media

SONY CORPORATION

Symbol	Price	Change	Volume	Currency	Exchange
6798.T	4,340	-0	0	JPY	

Market: NYSE

Company Quick Search Report

- 1. Movie musical U.S. News & World Report, 9 September 2002, 122 words. (English)
- 2. Bye bye, Sony U.S. News & World Report, 9 September 2002, 161 words. (English)
- 3. Sony Life Insurer To Cap The-Dip Tally With Acq. - Nikkei Dow Jones International News, 12/11, 9 September 2002, 459 words. (English)
- 4. Marketing at the Movies - First, It Was On-Screen Ads Now, It Is Lobby - The Wall Street Journal, 5 September 2002, 391 words. (English)
- 5. R&D - Factiva/Dia Philips PHILPS and Sony, Regulatory News Service, 02/09, 6 September 2002, 1026 words. (English)

## Company Quick Search Report

- Continue your search directly from your article page.
- Click on company names to get company reports, information on competitors, or click "More Like This" to see similar articles.

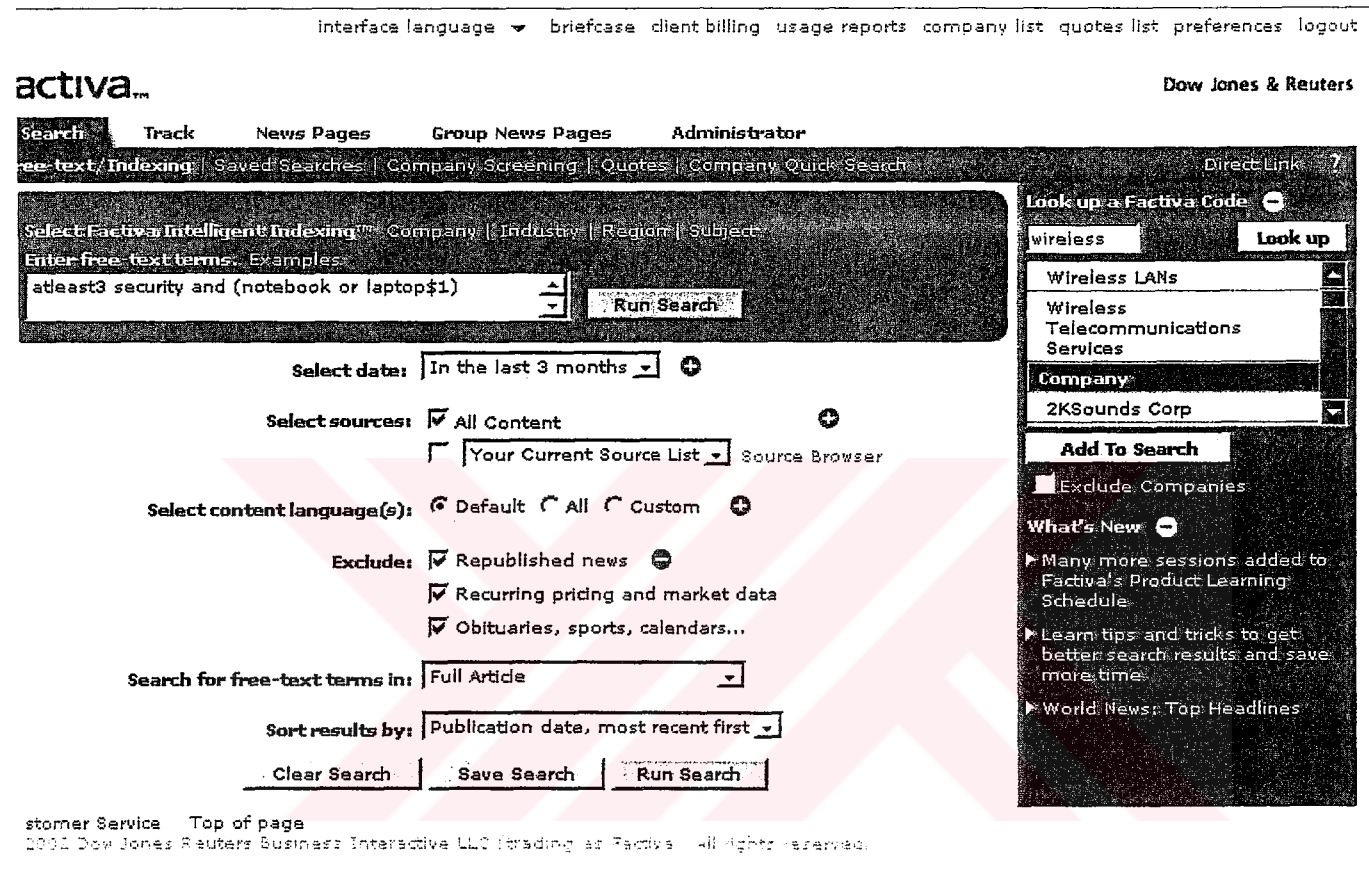
# ver Searching at its Best

out of our Advanced Search screen is optimized for power searchers. It draws on the same content set as the Standard Search and includes every search parameter and control that information experts have come to rely on: exclusion filters, custom fields, date-range searching, and the ability to commingle Factiva Intelligent Indexing terms with free-text. Although results ne Factiva.com search page will be the same as the other, the Advanced search page is where power searchers turn for in, accuracy, customization, and control.

scad connectors and boolean  
ctors give experts the power to  
: results.

• You can run one search across all media  
types, or limit your source selection to  
include only the publications you want.

• Adding Factiva Indexing terms to your  
search statement ensures precise results.



Search Screen

## ministration with Power and Precision

com gives administrators the advanced tools they need to manage the groups of users, deliver targeted news, and integrate nless flow of timely information into the everyday operation of any organization.

r custom content to the entire organization or group. Provide each group with their own Track folders, News Pages, saved : lists, saved searches and company lists.

ers to each group or department. Then assign an individual to manage and maintain authorizations for each department. detailed usage reports online that track the quantity and type of content obtained by each user. Factiva.com ensures that results remain confidential.

custom client-billing interface that enables you to establish bill-back codes that display on Factiva invoices in the format you prefer.

## Editorial Control

Editor, our add-on editorial interface, helps you make certain your organization is seeing the most meaningful news and tion. You can control and prioritize the delivery of content, annotate Factiva news and articles with notes or flags, and add Web-based content from within Track folders. It's easy to implement and use, with no new software or hardware required. ctiva Editor, employees can spend less time searching for critical information, and more time applying it.

# Factiva Advantage

offers another strong advantage: expertise before, during, and after implementation. We understand the support it takes to put a full news and information resource into action across your entire enterprise. To ensure that your company will get the most out of Factiva, we offer unmatched training, resources, and consulting.

**Enterprise Consulting Program**—helps your organization get the most out of Factiva, from building awareness and training users, to providing education and information about the changing electronic content environment. [www.factiva.com/enterprise](http://www.factiva.com/enterprise)

**e-Learning Programs**—offers online training and tutorials as well as advanced personal instruction. [www.factiva.com/learning](http://www.factiva.com/learning)

**Communities**—offers resources and programs to help information professionals, CKO's, corporate communications executives, and intelligence professionals, and publishers stay up-to-date and make better business decisions. [www.factiva.com/communities.asp](http://www.factiva.com/communities.asp)

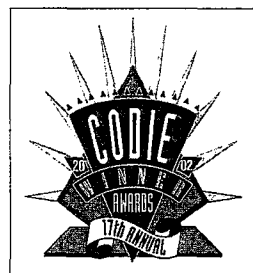
## About Factiva

Dow Jones & Reuters Company, provides world-class global content, including Dow Jones and Reuters news and *The Wall Street Journal*—unduplicated in a single service elsewhere. Factiva offers the only single solution with multiple language interfaces and multilingual content covering nearly 8,000 sources.

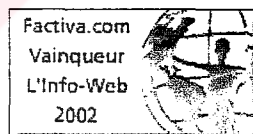
Factiva products and services help companies integrate news and business information into their daily workflow to increase organizational intelligence and leverage external and internal content within the knowledge management function. Factiva's content management and integration services are used by leading organizations worldwide.

At industry standards and open architecture, Factiva products deliver flexible, extensible, customizable solutions to enable easy integration and use in the enterprise. Editorial and technical consulting, taxonomy development, integration expertise and e-learning programs reflect Factiva's innovative approach to delivering solutions beyond the content.

Factiva is one of *KM World Magazine's* "Top 100 Companies in Knowledge Management" and part of *eContent Magazine's* "Top 100 content companies to watch." Factiva is also recognized as a winner of the 2002 Software Industry Association's Codie Awards in the Best Online Business, Corporate or Professional Information category.



Factiva.com—Best Online Business, Corporate or Professional Service



Factiva.com Named Best Web-based Information Product of the Year

Find out more about Factiva.com at [www.factiva.com/factiva](http://www.factiva.com/factiva)

Have a sales rep contact you, visit: [www.factiva.com/moreinfo](http://www.factiva.com/moreinfo)

Our global customer service group is available 24 hours a day, seven days a week.



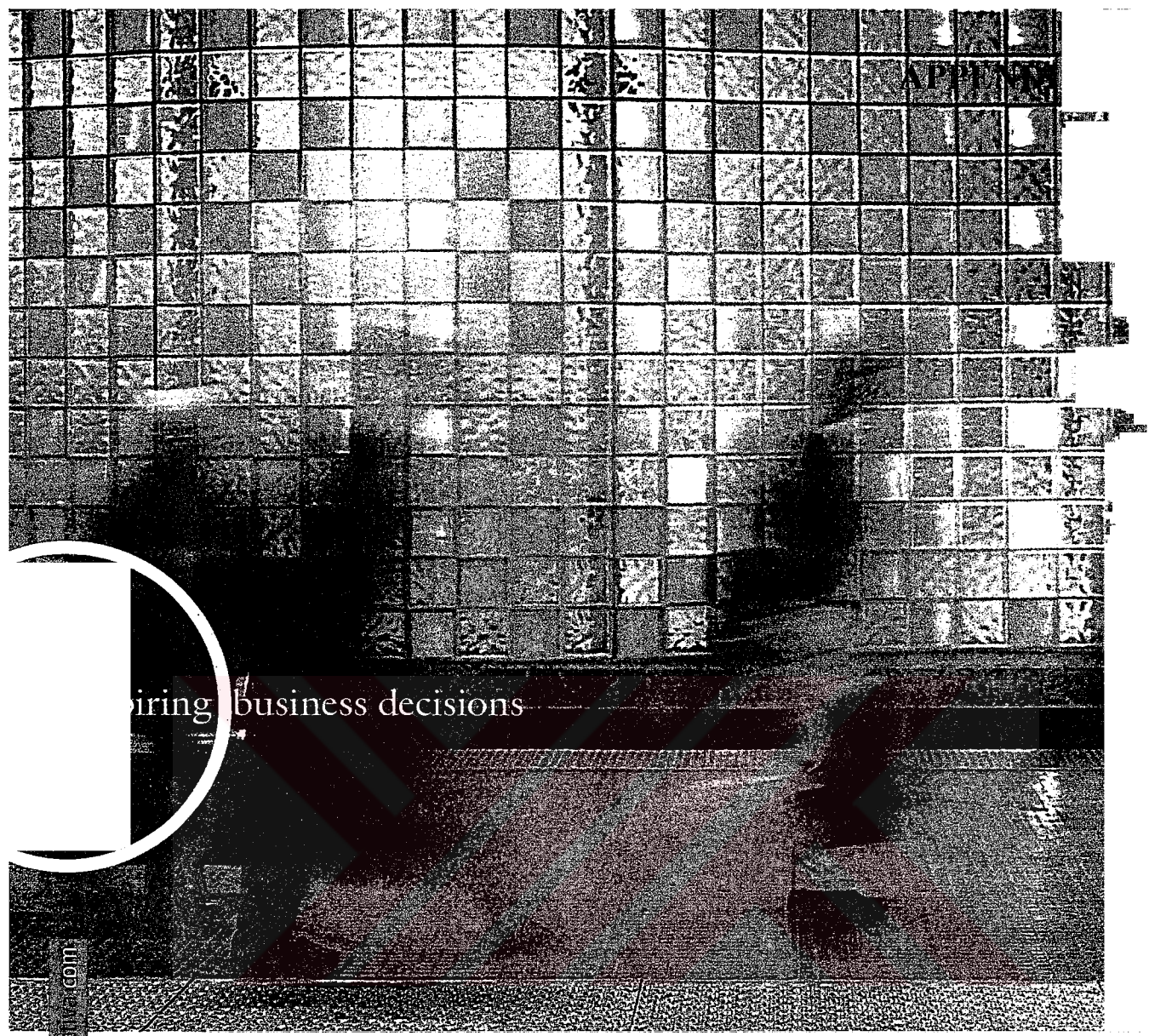
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INFORMATION REQUEST FORM  
[www.factiva.com/moreinfo](http://www.factiva.com/moreinfo)



...iring business decisions

www.factiva.com

**Factiva** Integration

## Business Information the Way You Want It

Content integration has come of age. Today, top companies are undertaking strategic management initiatives that enable employees to read relevant business information alongside critical applications, such as a CRM system and e-mail tools, within their intranets or enterprise information systems. The challenge is to identify the right combination of tools and content that provides the right solution for an increasingly global workforce.

Integrate the Factiva Integration suite of content integration tools. Based on your specific requirements for content, customization and delivery, you gain a solution that draws from Factiva's unmatched collection of world-class sources. With Factiva, you get business information the way you want it.

**factiva**  
Dow Jones & Reuters

## Solution that Fits Your Unique Business Information Strategy

Challenge of content integration is ensuring that what you deliver to your end users is relevant to their daily work. That's where Factiva Integration offers a family of tools that solve your content integration challenge. Whether you need to place a searchable archive on your site or integrate news articles into

your intranet architecture using XML, Factiva offers a solution that matches your strategy. Because these tools pull from the most comprehensive collection of critical news sources, you can rely on a single vendor to accommodate the needs of your end users, no matter where in the world they work.

### Factiva Publisher

A point-to-use content feed and server application that provides a flexible user interface, editorial and administrative tools and the ability to integrate external content with internal documents.

#### Business case for choosing this tool

You need to create a news page for your intranet and need to pull articles from both internal and external sources. In addition, you need editorial control to review and add commentary to news articles before they're posted.

#### How does content reach your site?

News and quotes are delivered throughout the day to a dedicated page on your site, via HTTP or FTP.

### Factiva Search Module

A flexible integration tool that provides access to a searchable news archive from within your intranet or portal interface.

#### Business case for choosing this tool

Your intranet or portal is already developed, and end users now need the ability to search a global news archive without leaving the corporate desktop environment.

#### How does content reach your site?

When end users submit a query, the Factiva server delivers the search results to your intranet or portal. News can be delivered in HTML format or tailored to fit your XML-based interface.

### Factiva Track Module

An event awareness tool that displays filtered news within your intranet or portal interface.

#### Business case for choosing this tool

Your intranet or portal is already developed and end users now need to stay current on news about a particular company, industry, region or market — without leaving the corporate desktop environment.

#### How does content reach your site?

When end users want the latest news on a topic, they visit shared folders on your intranet or portal, which are set up with the help of Factiva search specialists. The content is pulled by Factiva and presented on your intranet or portal. News can be delivered in HTML format or tailored to fit your XML-based interface.

### Factiva Select

An XML content feed that allows you to host and integrate news into your content management system.

#### Business case for choosing this tool

You need to filter external news on your terms, and integrate this content with information from internal or third-party resources.

#### How does content reach your site?

News articles, organized by Factiva, are delivered to your server where they can be filtered even further and displayed alongside items from internal or third-party sources.

## Get a closer look at Factiva Integration today...

Visit [www.factiva.com/integration](http://www.factiva.com/integration), or contact us at [solutions@factiva.com](mailto:solutions@factiva.com) or [www.factiva.com/moreinfo](http://www.factiva.com/moreinfo).





inspiring business decisions

www.factiva.com

## factiva Track Module for critical news right from your intranet.

Put your corporate intranet or portal so employees can connect to the facts that drive business growth. The challenge is delivering the exact external news relevant to each department or workgroup. The solution is Factiva Track. This current awareness tool delivers relevant news and business information from world-class sources to your corporate desktop.

Track Module is part of our expanding suite of solutions, which provides employees with advanced methods for integrating world-class news and information into their corporate environment. With Factiva Track employees receive just the filtered news that matters most to them.

### Corporate News Alerts

Alerts are generated for each workgroup or department based on their specific interests. Alerts are delivered to the employee's desktop or mobile device.

Alerts are generated for each workgroup or department based on their specific interests. Alerts are delivered to the employee's desktop or mobile device.

Alerts are generated for each workgroup or department based on their specific interests. Alerts are delivered to the employee's desktop or mobile device.



# activa Track Module... tilor it to your XML-based environment...

Factiva Track Module  
ur interface to control  
gational experience and  
ur site's look and feel.

our own news page  
sents the latest content  
ctiva, internal sources  
d-party providers. Take  
ge of XML to easily  
ur company's style sheet.

different language  
as to serve employees  
region. Factiva offers  
in up to 12 languages.

acise results: Factiva  
rtly indexes each article  
any, industry, region and  
employees find valuable  
faster, so they make  
decisions.

The screenshot displays a web browser window with the following content:

- Address Bar:** Website: [ ]
- Header:** Brand Company
- Date:** Day, Month 00, 2001
- Navigation:** News Profiles, People Search, Events, Telephone Directory, HR Policies, Corporate, Admin
- Left Column:**
  - My Profiles:** [ ]
  - Today's Company News:**
    - [Microsoft](#)
    - [Adobe](#)
    - [Oracle](#)
    - [IBM](#)
    - [Sun Microsystems](#)
  - Today's Industry News:**
    - [Aerospace](#)
    - [Telecommunications](#)
    - [US Advertising](#)
    - [Europe Advertising](#)
- Right Column:**
  - Europe Advertising**
    - Havas Advertising's Euro RSCG to buy U.S. advertising agency Black Rocket**  
AFX News, 22 February 2001, 75 words.  
NEW YORK (AFX) - Havas Advertising unit Euro RSCG Worldwide said it will acquire a majority stake in Black Rocket, an advertising agency based in San Francisco. No further details of the transaction ...
    - San Francisco's Black Rocket Joins Euro RSCG Worldwide; Black Rocket and Euro ...**  
Business Wire, 22 February 2001, 742 words.  
NEW YORK--(BUSINESS WIRE)--Feb. 22, 2001 - Fast-Growing Creative Agency Strengthens Euro RSCG Worldwide's
    - Account Moves**  
Advertising Age International, 1 February 2001, 148 words.  
To qualify, a win must cover at least three markets. Global/pan-regional
    - CCG.XM Chosen by Singapore Airlines as Global Brand Development Partner**  
Business Wire, 22 February 2001, 672 words.  
NEW YORK--(BUSINESS WIRE)--Feb. 22, 2001--CCG.XM, the e-business solutions arm of the Cordiant Communications Group (NYSE: CDA, London: CRI), has won the appointment of online brand consultant to Singapore ...
    - AD AGE'S DAILY WORLD WIRE, February 22, 2001**  
Ad Age's Daily World Wire, 22 February 2001, 5803 words.  
NORTH AMERICA COCA-COLA CO., P&G FORM GLOBAL JUICE, SNACK VENTURE
    - e-Business Provider CCG.XM: Enjoying Growth-appoints Ken Mandel ...**  
Business Wire, 20 February 2001, 519 words.  
NEW YORK--(BUSINESS WIRE)--Feb. 20, 2001--CCG.XM (http://www.ccgxm.com), the global e-busi-ness solutions arm of the Cordiant Communications Group (NYSE: CDA, London: CRI), announced the appointment of Ken ...
- Footer:** Factiva  
How Jones & Associates

## Custom Edition

ve embraced XML technology, which is fast becoming the  
rd for data exchange, then the custom edition of Factiva Track  
e delivers all the flexibility you need. The custom edition uses an  
ased open systems framework so you can display targeted  
olders from Factiva alongside other third-party resources and  
vn internal documents.

The power of XML means you can present news folders with related  
resources — on your own terms. When employees visit a specific area,  
such as "Competitive Intelligence," they click on the Factiva Track  
Module news folder for a particular company. You can present folders  
or headlines in any look and feel you require. In this way,  
both external news and internal content are shared across departments  
and workgroups.

# plug in our ready-to-use HTML interface...

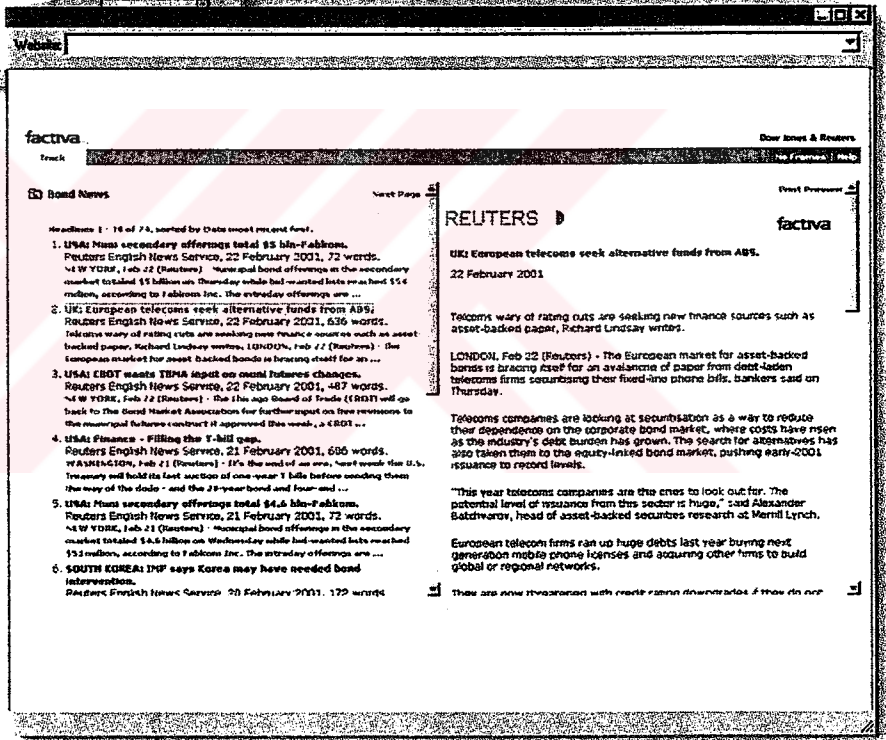
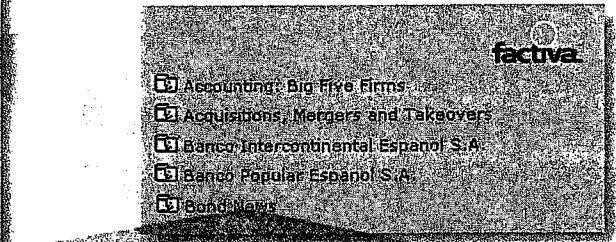
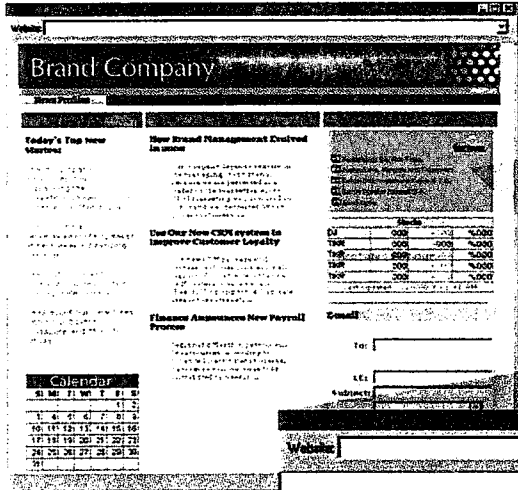
Track Module shares page with other... End users can... folders without... other portal or... ities.

visit throughout fresh news: Every user clicks a news... updated from Factiva... st headlines.

management that's... re-free: News items... automatically after... when the folder... articles.

by scanning... End users have... of viewing both... and the article on... page, so they can... cal news faster.

re required: Articles... l by Factiva and... HTML through the... Module interface.



## Standard Edition

want to plug in our news folder interface, then consider standard edition of Factiva Track Module. This ready-to-use... enables you to display news folders anywhere on your... with minimal programming. Unlike other current awareness... ctiva Track Module provides you with access to our content... s, who work with you to set up folders that focus on the... being tracked by your executives, departments and work

groups. This will make the intranet the first place that employees visit for useful news, thus increasing its value as a corporate resource. For departments who demand breaking news, such as corporate communications, Factiva Track Module's up-to-the-minute coverage reduces the need for multiple electronic clipping subscriptions. What's more, you can make sure that certain groups of employees, such as executive teams, gain selected access to news folders.

# Monitor Critical News on Your Intranet

## Delivers Timely Access to World-Class Content

Track Module draws from more than 4,000 global sources within the content set. Hundreds of newspapers are available on the same day of publication, including *The Wall Street Journal*, *The Daily Standard*, *The Financial Times* and *The South China Morning Post*. What's more, *Dow Jones AP* and *Reuters newswires* are continuously updated during the day. You also gain access to content produced in up to 12 languages.

## Committed to Post Sale Support

Factiva offers another strong advantage: full service after the sale. Content specialists work with you to create and maintain targeted news feeds. Our technical consultants will assist you in implementing Factiva's solutions to meet your unique customization requirements. Our Enterprise Support team helps you build awareness and train end users. Plus, our customer service group is available 24 hours a day, seven days a week.

## Leverage Your Existing EIP Investment

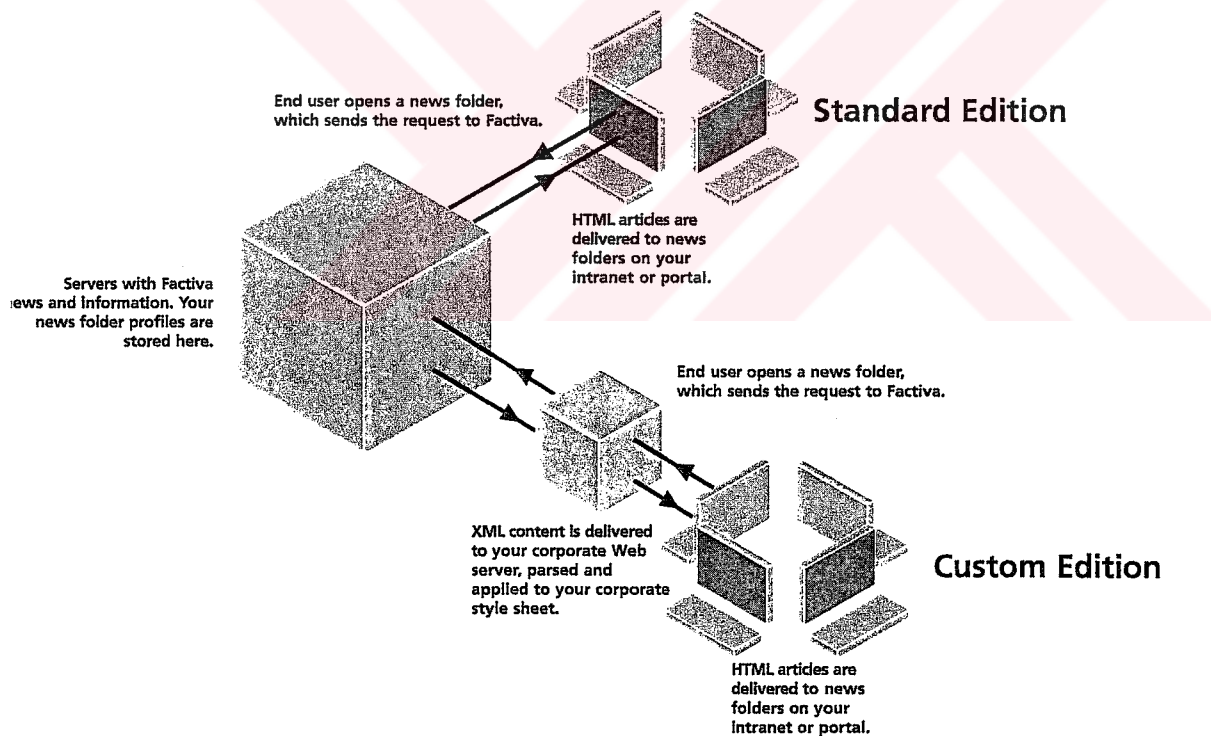
Has your company begun developing an enterprise information portal solution from an EIP software vendor? Factiva has developed Factiva Track Module to work within specific portal software applications.

Ask your account executive for details or visit

[www.factiva.com/integration](http://www.factiva.com/integration)

for more information on Factiva's technology partnerships.

## Factiva Track Module Works



## Join Factiva

As a Dow Jones & Reuters company, Factiva provides world-class global news and information through Web sites and content integration solutions.

Our mission is to be the indispensable provider of business information through customized solutions which inspire our customers' best business decisions.

To learn more about Factiva Track Module, visit [www.factiva.com](http://www.factiva.com) or contact us at [www.factiva.com/moreinfo](http://www.factiva.com/moreinfo).



inspiring business decisions

www.factiva.com

## factiva Search Module global news archive that fits. Simply.

As business research has grown more complex as companies try to meet the needs of a global workforce, Factiva provides a simple content integration solution: the Factiva Search Module. This research tool can be inserted anywhere in your corporate intranet or portal interface, enabling end users to search Factiva's global news archive without having to exit their corporate desktop interface.

The Factiva Search Module is part of our expanding suite of solutions, which provides customers with advanced methods for integrating world-class news and information into their corporate environment. With Factiva Search Module, our global news archive fits anywhere you need it. Simply.

The following are some of the key features of Factiva Search Module:

- **Global News Archive:** Access to a comprehensive global news archive, including news from over 100 countries and regions.
- **Advanced Search Capabilities:** Powerful search filters and options to refine results, including search by date, location, and topic.
- **Integration with Corporate Systems:** Seamless integration with existing corporate intranets and portals.
- **Streamlined Content Delivery:** Easy-to-use interface for searching and accessing news content.

# activa Search Module...

## Integrate it to your XML-based environment...

Factiva Search Module provides a user interface to control the look and feel of your site's search experience and to customize your site's look and feel.

Factiva Search Module is a single search resource that provides a user interface for managing the flexibility of your search engine. End users can run one search across content from internal sources and external providers.

Customize the source selection to meet the particular needs of your end users.

Support different language options to satisfy employees in different regions: Factiva offers support for content in 12 languages.

Content is hosted by Factiva and delivered in XML format to your server. Apply your company's style sheet, then convert the XML to HTML for end users.

The screenshot shows a web browser window displaying the Factiva Search Module interface. The page title is "Brand Company" and the date is "Day, Month 00, 2000". The interface includes a navigation menu with options like "People Search", "Events", "Telephone Directory", "HR Policies", and "Corporate". Below the menu, there are three main sections: "My Profiles", "Search Results", and "Company Research".

**Today's Company News:**

- 1 "Europe Online" fŸr die Astra-Satellitenkunden. Die Presse, 11/15/2000, 315 words.
- 2 E-Commerce (A Special Report): Overview — The Wireless World — in ... The Wall Street Journal, 12/11/2000, 1781 words.
- 3 WAP Specs from Product Development, 10/9/2000, 748 words.
- 4 1Q Products Using WAP Protocol 11/7/2000, 232 words.
- 5 Unplugged And Undone, Fortune Magazine, 10/9/2000, 1530 words.
- 6 The Wireless Future A unified phone, fax, and browser? Not yet. But loads ... Business Week, 12/4/2000, 1473 words.

**Today's Industry News:**

- [Aerospace](#)
- [Telecommunications](#)
- [Financial Services](#)
- [Media and Entertainment](#)

**Content provided by:**

**Factiva**  
From Jones & Reuters  
 Brand Company PR Dept.  
 Plutonium Analyst Reports

This symbol indicates an item is from Factiva

**Company Research:**

Symbol	Price	Change
HD	44.25	+1.25 %2.36
ORCL	30.45	+2.90 %7.23
MSFT	46.38	+3.34 %6.89

Last Updated: 2/18/00 9:11:41 AM

WAP and DSL

[Search Tips](#)

## Custom Version

We've embraced XML technology, which is fast becoming the standard for data exchange, then the custom version of Factiva Search Module delivers all the flexibility you need. The custom version uses an XML-based open systems framework so you can display news from external sources alongside internal sources and other third-party content. Your developers can also build the search functionality you need to serve your company's employees.

When your end users submit their searches, you can also display matching headlines in any look and feel you require. The power of XML means you can create personalized news pages based on user needs, such as creating an interface that reflects the local language. Using the custom version of the Factiva Search Module, employees can monitor global business events through your own corporate lens.

# plug in our ready-to-use HTML interface...

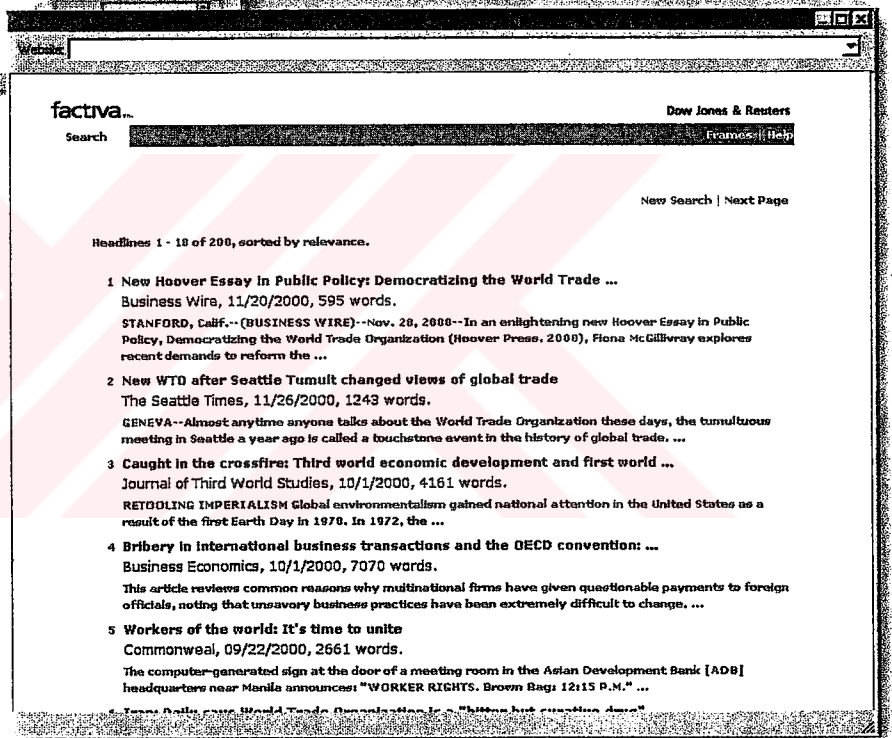
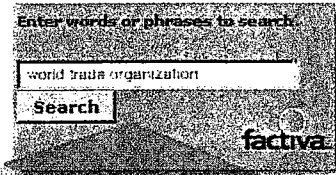
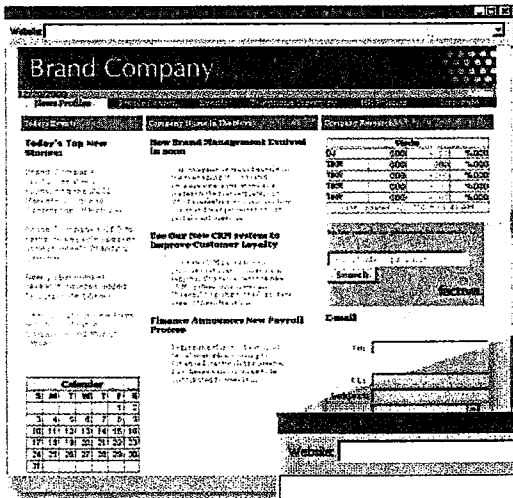
Module shares page with other applications: End users, using their desktop benefit from being their external news their other portal or sites.

Simple or advanced: Provide a simple interface with default options to give end users the range search options.

Customizable: You control the look of the search box, with minimal programming.

Search terms on any topic: End users can search for quality news and information that enables them to make better decisions.

Easy to use: No programming is required: Articles are displayed by Factiva and can be accessed through the HTML interface.



## Standard Version

The simple HTML search box is all you need, then consider the standard version of Factiva Search Module. This ready-to-use solution allows you to provide powerful searching of the Factiva global news database – with minimal programming. The standard version comes in two sizes: a small search box that fits in a tight space and supports simple text searches, or a larger search box with advanced search options, such as the ability to select date options, languages

or a range of publications. When your end users submit their searches, they can even determine how headlines and articles are presented, in either a framed or unframed view. You can typically insert the standard version of Factiva Search Module in one day. This makes the standard version the fastest way to bring Factiva's respected business news and information inside your corporate environment.

# The Search Solution for Corporate Intranets...

## Delivers the World-Class Content You Need

Factiva Search Module provides access to the Factiva publications archive, a base of nearly 6,000 global sources such as *The Wall Street Journal*, *Economist*, *The Times of London*, *The South China Morning Post*, *Dow Jones*, *AP* and *Reuters newswires*. The archive, which consists of content produced in 12 languages, is updated constantly, with thousands of new articles added every day.

## is Committed to Post Sale Support

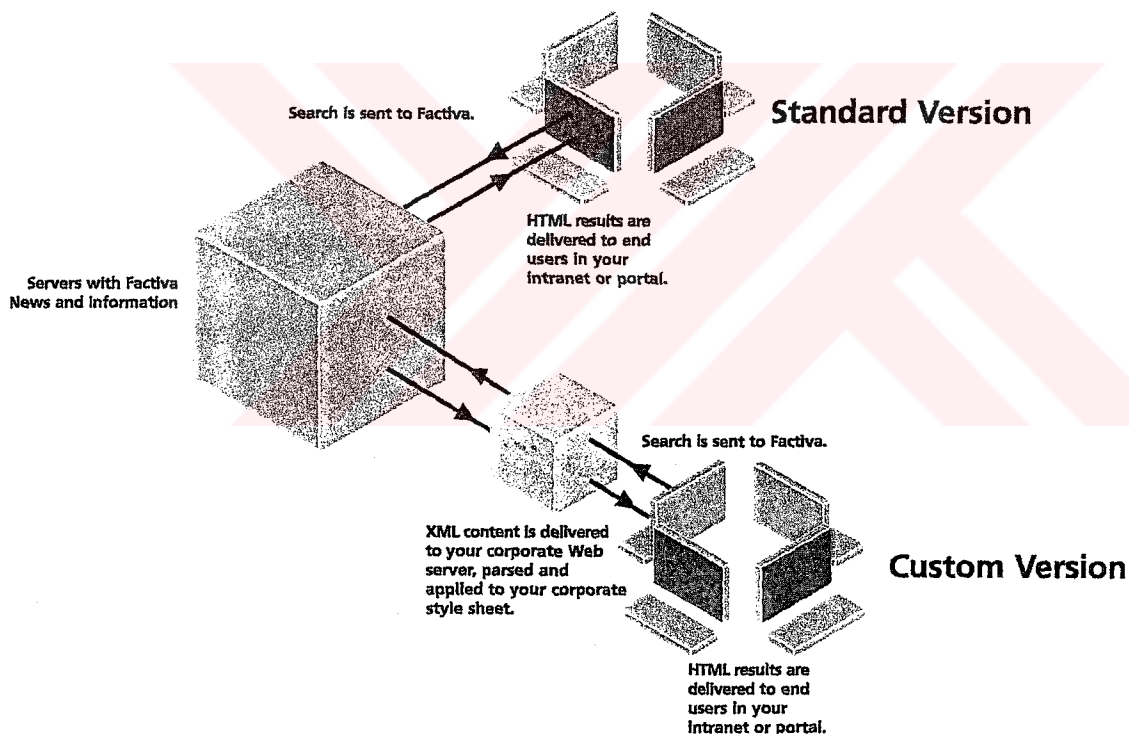
Factiva offers another strong advantage: full service after the sale. Technical consultants can assist you in implementing Factiva's products to meet your unique requirements. Our Enterprise Roll-out team can help build awareness and train end users. Plus, our global customer support group can quickly respond to your questions on demand.

## Leverage Your Existing EIP Investment

Has your company begun developing an enterprise information portal solution from an EIP vendor? Factiva provides versions of Factiva Search Module that work with specific portal software applications.

Ask your account executive for details or visit [www.factiva.com/integration](http://www.factiva.com/integration) for more information on Factiva's technology partnerships.

## Factiva Search Module Works



## about Factiva

Factiva, a Dow Jones & Reuters company, provides world-class global news and information through Web sites and content integration solutions. Our mission is to be the indispensable provider of business information customized solutions which inspire our customers' best business decisions. To learn more about Factiva Search Module, visit [www.factiva.com](http://www.factiva.com) or call us at [www.factiva.com/moreinfo](http://www.factiva.com/moreinfo).



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# activa Select

## APPENDIX 6

Current News that Fits Any Way You Want It.



Integrate an external news feed into your intranet to enhance the way your employees work.

Factiva Select is building an XML-based knowledge management system to fit unique business objectives. Now you can integrate world-class news and information without any barriers. Introducing Factiva Select. Use this scalable, current awareness news feed to pull filtered XML content from a collection of global sources. Then organize and style this locally stored content to match the look and feel of your corporate environment.

Factiva Select is part of Factiva Integration, our expanding suite of content management tools. It enables you to host and integrate news into your system so end users have a single point of access to a wide range of sources. In this way, end users save time searching for the facts they need to make smarter decisions.

### Three Key Advantages of Factiva Select

**Reduce research time** — Integrate global news and information with internal and/or third-party content. Build a single resource by leveraging the flexibility of XML.

**Control the user experience** — It's your user interface, so you decide what end users see this filtered content.

**Flexible implementation** — Since you can locally store up to a 90 day archive of Factiva content, you can process the information in the way your organization does business.





# Factiva Select

World-Class Content. XML Format. Stored Locally.

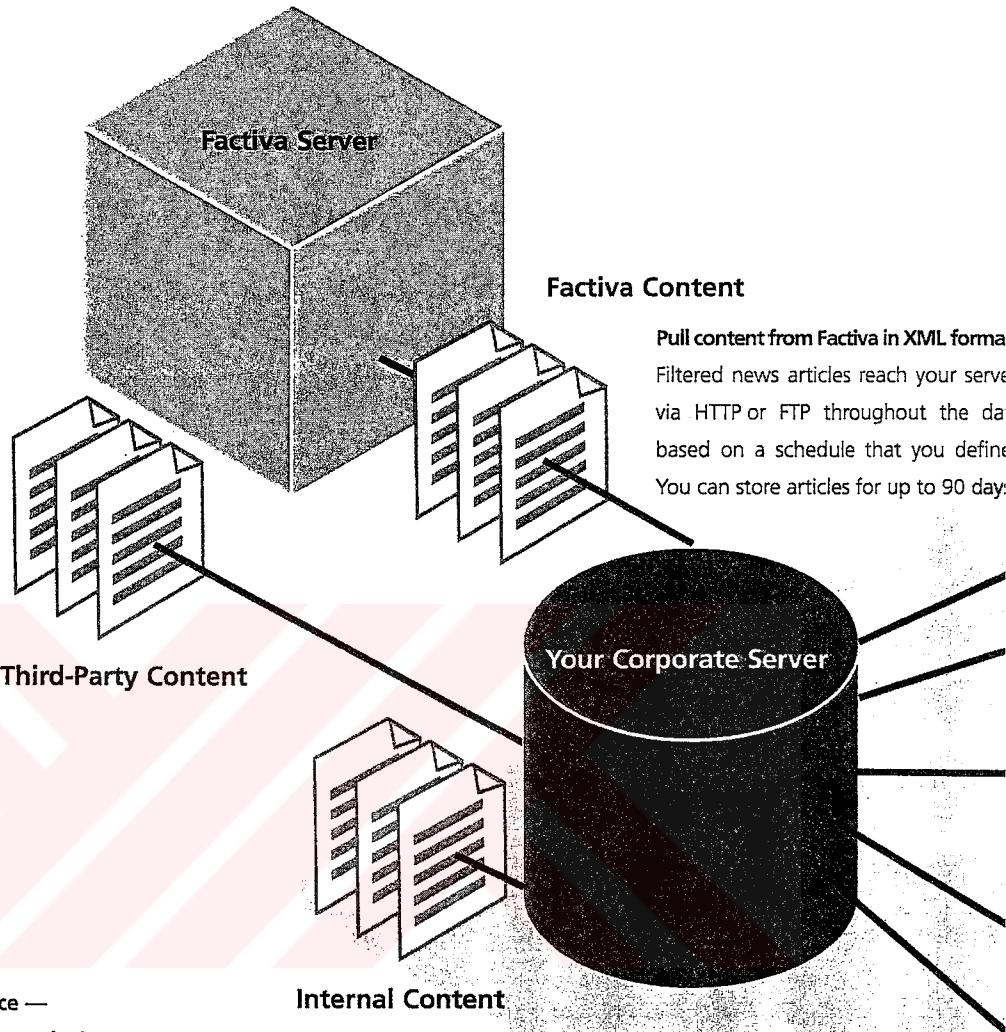
**Factiva Select starts with filtered content.** Work with our content specialists to create custom news folders that target the needs of your end users. Each article in the Factiva collection is consistently organized with Factiva Intelligent Indexing™ to ensure you get relevant results.

**Your option — Integrate Factiva content with documents** from internal and/or third party resources.

## **Additional service — Factiva Intelligent Indexing**

License Factiva Intelligent Indexing to build your own taxonomy. Factiva Consulting can help you implement a common content coding system that integrates Factiva Select content with internal and/or third-party sources.

**Your team decides how to style and transform the content** to fit your business information needs.



## Achieve Precision Content

**Editorial selection ensures accuracy.** You gain access to Factiva content specialists, who work with you to set up custom news folders that target your end users' requirements. Each article is already coded with appropriate Factiva Intelligent Indexing codes, which identify company, industry, region and news subjects mentioned in text. This set of topics and subtopics reduces the time you spend identifying and organizing your intranet content and ensures relevant

results. Factiva Intelligent Indexing combines human business knowledge with automated mechanisms. Your content managers can take advantage of these codes to further refine news folders for specific individuals or departments. If you plan to integrate content from Factiva with internal and/or third-party sources, you can build your own indexing system based on the Factiva Intelligent Indexing schema — and Factiva Consulting's editorial experts can help.

**Your option — Tightly integrate Factiva content to fit your work processes.** Your employees can work smarter by viewing Factiva content on the same page as other portal or intranet applications, such as e-mail, CRM or an internal database.

**Additional service — Factiva Consulting**

To get the most of your knowledge management solution, consider hiring Factiva Consulting. These contract content integration experts can help you meet your IT development deadlines.

**Wireless Devices**

**Your Corporate Intranet or Portal**

**Your Corporate Environment**

**Your option — Control the end user presentation.** As long as you abide by our branding guidelines, the colors, fonts and way you present Factiva content are up to you.

**Your option — Deliver content to end users anywhere they are:** XML simplifies the process of organizing information for different users. You can integrate Factiva content with other sources before deploying relevant information to the corporate desktop, pager, PDA, pocket PC or other communication devices.

## Realize the Promise of XML

**Content can be delivered anywhere.** Factiva Select allows you to filter content throughout the day via HTTP or FTP. All of the processing rests in the hands of your developers, giving them complete control over how the content is parsed, styled and deployed. Once this content reaches your server, they can integrate it with items from internal and external sources. They can create a single news page to track competitor activities. They can build a search box that taps into

a 90-day archive of Factiva content and display news headlines for a specific region. They can do just about anything, because XML can be readily integrated into any number of end user applications and environments. You can also contract with Factiva Consulting, a team of technical and editorial experts who have helped clients around the world build and create custom applications of Factiva products.

# rent News that Fits Any Way You Want It.

## provides timely access to world-class content

gathers the world's most valued news and industry sources, with thousands of sources added each day. Factiva Select draws from more than 4,000 global sources. Included are the world's most influential newspapers, such as *The Wall Street Journal*, *The Globe and Mail*, *The Times of London*, *The Economist*, *Le Monde*, *Neue Zürcher Zeitung*, *La Stampa*, *El Pais* and *South China Morning Post*. Hundreds of newswires are also available, including *Associated Press*, *Dow Jones* and *Reuters Newswires*. Even more, you have access to content produced in up to 12 languages.

## is committed to post sale support

offers another strong advantage — full service after the sale: Content specialists work with you to create and maintain custom news feeds based on the specific needs of your end users. Technical consultants assist you in the initial technical implementation of Factiva Select. An enterprise roll-out team helps you build internal awareness, train end users and contact the proper Factiva resources to ensure a smooth implementation. A global customer service group is available to answer your questions 24 hours a day, seven days a week.

## provides consulting services

Consulting is a hired team of technical and editorial experts, available exclusively to Factiva customers, who help you implement Factiva Select to meet your unique customization requirements. Factiva Consulting offers you expertise on how to implement Factiva products to support your strategic management initiatives. Our team is ready to step in when you need additional IT resources to meet your deadlines. Plus, our editors can help leverage Factiva Intelligent Indexing™ by applying our indexing codes to all your content, so you achieve a comprehensive indexing scheme.

## Factiva

As a Dow Jones & Reuters Company, provides world-class global news and business information through its Web sites and content integration solutions. Factiva's mission is to be the indispensable provider of business information and customized solutions that inspire its customers' best business results, globally and locally. To find out more about Factiva Select, visit [www.factiva.com/integration](http://www.factiva.com/integration) or contact us at [www.factiva.com/moreinfo](http://www.factiva.com/moreinfo).

## Leverage Your Existing EIP Investment

Has your company begun developing an enterprise information portal solution from an EIP vendor? Factiva Select can work within specific portal software applications.

Ask your account executive for details or visit [www.factiva.com/network](http://www.factiva.com/network) for more information on Factiva's technology partnerships.



# factiva.com

## How to Get Results

## APPENDIX 7


factiva.com is a powerful Web-based tool for researching and monitoring news and business information. Its combination of rich content, personalized tools and support will help you make better decisions, faster.

This guide is designed to help you quickly become familiar with the most important parts of Factiva.com. The back cover will serve as a quick desktop reference for the most useful techniques for getting the facts you need. If you need more in-depth guidance, reference tools, or training, visit Factiva.com Learning Programs at [www.factiva.com/learning](http://www.factiva.com/learning) or contact customer service at [www.factiva.com/customerservice](http://www.factiva.com/customerservice).

The screenshot displays the Factiva.com web interface. At the top, there are navigation links for 'interface language', 'briefcase', 'client billing', 'usage reports', 'company list', 'quotes list', 'preferences', and 'logout'. Below this is a search bar with the text 'Search this Newsstand Enter free-text terms. Examples'. The main content area shows three news articles from different sources: 'THE WALL STREET JOURNAL', 'South China Morning Post', and 'The Daily Telegraph'. Each article has a list of headlines and a brief description. On the left side, there are several toolbars and panels, including 'Indices', 'Equities', 'News Tools', and 'Publications'. The interface is designed to be highly customizable and user-friendly.

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1. How to Search .....	1
2. How to Research a Company .....	2
3. How to Manage Search Results .....	3
4. How to Keep Track of Current Information. ....	4
5. How to Personalize Factiva.com .....	5
6. Bring it all together with News Page .....	6
7. Quick Reference Sheet .....	back cover

Online help. Available behind the  icon

This guide demonstrates the customizable features within Factiva.com. Instructions on how to set up your own Personal News Page are included in this reference guide on page 6.



# How to Search

## Search with Factiva Intelligent Indexing™ terms

To receive only those items that mention a company, industry, region, or subject in a meaningful way.

On the Search screen, select from one or more of these indexing categories: Industry, Region, Subject, Company, or Look up [figure 1.1].

Click through the list, then click on the term you want applied to your search. Click the expansion button **+** for more sub-categories.

Use either radio button  Or  And to modify connectors between terms.

When terms appear within the Indexing box. When you are done adding terms to your search, click **Run Search**.

## Make your search more specific with free-text searching

The search function within Factiva.com is a powerful research tool that allows you to enter free-text search words in conjunction with selected Factiva Intelligent Indexing™ terms to find precise results.

Enter key terms in the free text field to narrow the search even further [figure 1.1].

Click **Run Search**.

## Why add Factiva Intelligent Indexing™ terms to your search?

Because they ensure you:

Receive meaningful information about a company, industry, region, or subject. For example, adding the term for Fiat will ensure you find articles about Fiat the company and exclude articles that simply mention that a celebrity was seen driving a Fiat automobile.

Overcome language distinctions. For example, a Factiva Intelligent Indexing code will help you locate articles about online banking, regardless of the language in which they were written.

## Create a custom source list

To receive targeted results from a customized group of sources, you can also save a source list for future use:

Click **Source Browser** from the Search screen. The Source Browser window displays [figure 1.2].

Select the sources you want to search and click **Add Selected Sources**. These sources display in the bottom half of the screen.

Click **Add to Search** to use this source list temporarily. Click **Save** to save the list. The list is now accessible from the **Select Sources** dropdown.

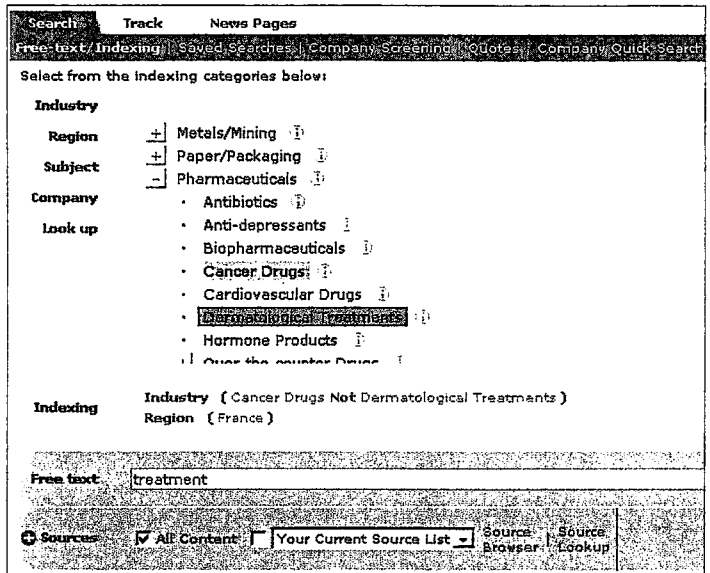


Figure 1.1 Select from the indexing terms: Industry, Region, Subject, Company.

**Q. Don't see this search screen [Figure 1.1]?**

**A.** Go to Preferences, click *Standard Search* within the *Search/Track* tab, click *Save*.

**Q. Why should I exclude certain types of content?**

**A.** To view results that don't include pricing data, minor news articles, or multiple versions of the same article.

1. Scroll down the search screen and *expand* **More Search Options**.
2. Expand the *Exclude* option.

Select one or more of the categories:

- Republished news (multiple versions of the same story that appear in several newspapers or sister publications)
- Recurring pricing and market data (intraday financial data)
- Obituaries, sports, calendars (minor news articles)

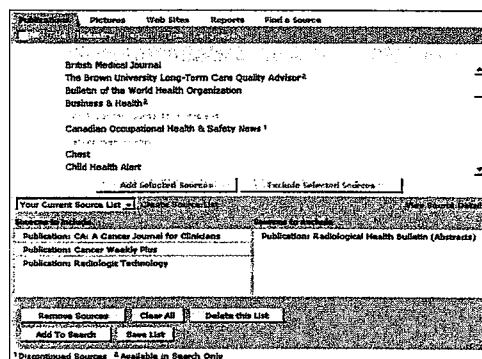


Figure 1.2 Choose a source or group of sources to focus your search.

# How to Research a Company

## Company overview using Company Quick Search

quickly pull together financial data, current news and other content related to a publicly traded company on a single page.

Company Quick Search from the Search tab.

as much of the name as you know or a valid U.S. ticker or a rs Instrument Code (RIC).

earch. If you searched by name, a list of matching companies ys, including subsidiaries [figure 2.1]. Click the company for you want to receive a company overview online [figure 2.2].

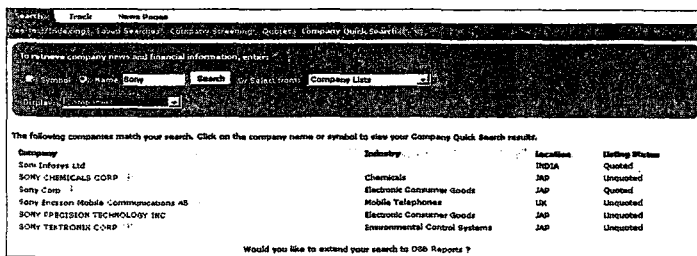


figure 2.1 To run a Company Quick Search, simply enter the name or symbol.

## activa company term to search the content set

o receive items that mention a specific company in a fful way.

the Search screen, select Look Up tab [figure 2.3].

he company name in the Look Up box, and select Company he pull down menu. Then click Look up tab. A list of matching anies displays, including subsidiaries and any acquired firms.

he desired term so it turns green. To change the and, or, not ands in your search, simply click on the term within the ing window. Green indicates or and orange indicates and.

any additional free-text terms and click Run Search.

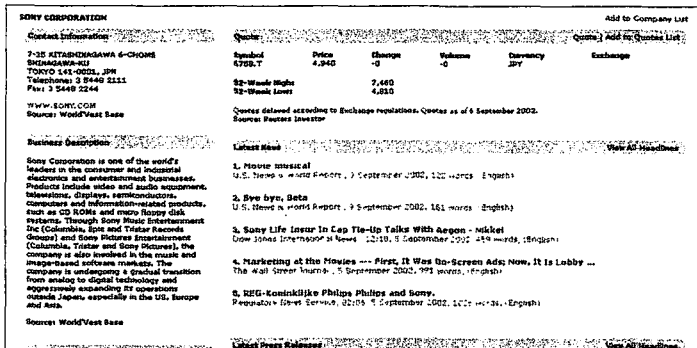


figure 2.2 This screen displays a company overview.

## u search on the same companies frequently?

create a Company List. This will save you the time of having to look e same company over and over again. Refer to "How to Personalize a.com" on page 5 for more details.

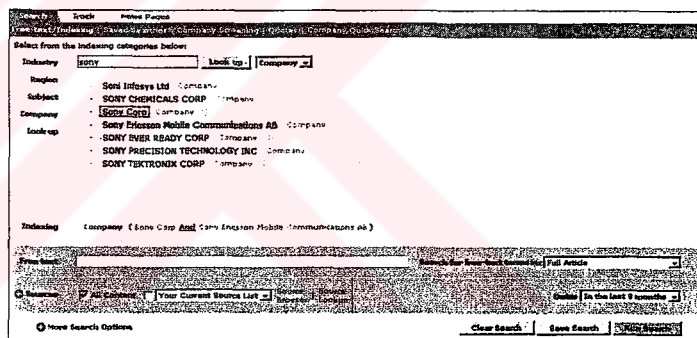


figure 2.3 Type a company name and get headquarters, subsidiaries, and more.

## y companies that match certain criteria

To identify prospects, potential partners, and investment nities by using criteria such as industry, location, and share ore than 23,000 public companies are available for screening. the Search tab, click Company Screening [figure 2.4].

t your criteria and click Submit. As you enter your selections, reening window tabulates a running total of companies that 1 your parameters.

Get List to view the final results. You can choose from a Basic ospecting List.

pany screening to create company lists. For more details see page 5.

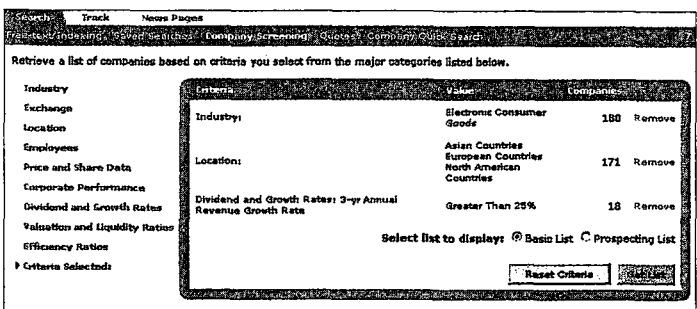



figure 2.4 Screen companies based on their specific financial performance.

# How to Manage Search Results

## Save items to a Briefcase

To store articles that you find useful but prefer to print, save, or e-mail at a later date.

Click the boxes beside headlines you want to save in a Briefcase.

Click the Briefcase icon  above the headlines. Add the items to an existing Briefcase, or create a new Briefcase.

To view the articles you just stored, click *Briefcase* at the top right corner of the screen. The Briefcase window displays [figure 3.1].

Click the Briefcase from the drop-down to view the items.

## When should you add articles to your Briefcase?

### When you want to:

1. **Save** your results at Factiva for 30 days. For example, you may be working on a project over a number of days or weeks. A Briefcase enables you to store headlines from different sessions in Factiva.com until you're ready to print, save, or e-mail these items.

2. **Organize** articles related to a specific project. You can create 25 briefcases and store up to 100 items in each. If you don't access any items in your briefcase within 30 days, the briefcase will be deleted.

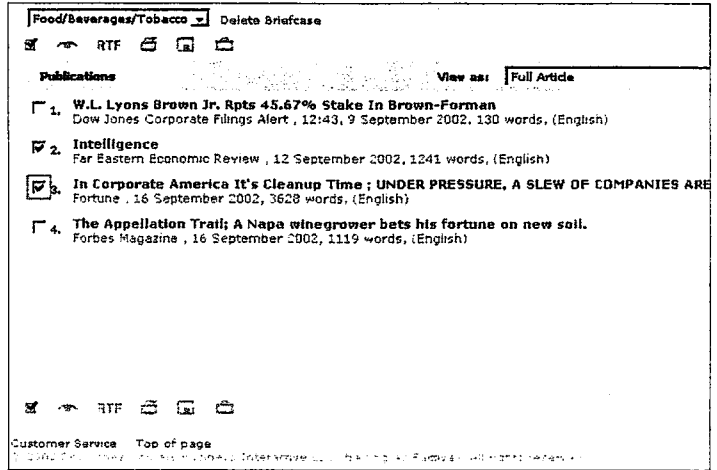



figure 3.1 Store headlines in your Briefcase until you're ready to use them.

## Share results to a colleague

To send important articles instantly to a colleague via e-mail, click the e-mail icon  from the results screen.

Click the headlines you want to send.

Click the e-mail icon  above your results, and select *E-mail results* [figure 3.2].

Enter the e-mail address, and click *Send*.

You can also e-mail from an article view.

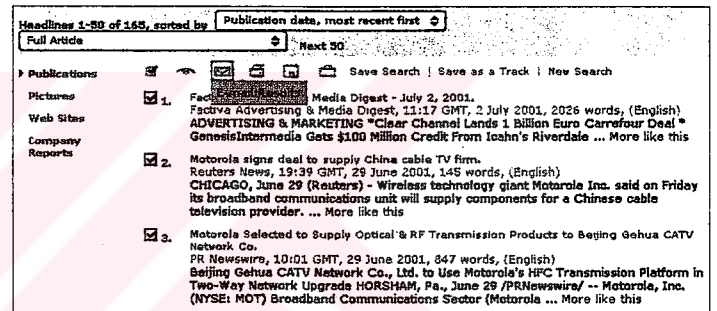


figure 3.2 After you select items, you can e-mail them directly from the screen.

## Find articles similar to the one you're reading

To continue finding valuable information without running a new search, click *More Like This* [figure 3.3].

**More Like This** appears under the headline or at the end of the full article. This searches for items that contain key words that appeared in the headline and lead sentence of the article you selected. For more precision, highlight a specific piece of text within the article view and then click *More Like This*.

At the end of the full article is a yellow box showing Factiva Intelligent Indexing™ terms related to the article. Click one of these terms to receive other articles to which this term was assigned.

## Automate your search

1. **Save** your search as a Track Folder and have results delivered automatically. **Save as a Track** while viewing results to set up a Track Folder.

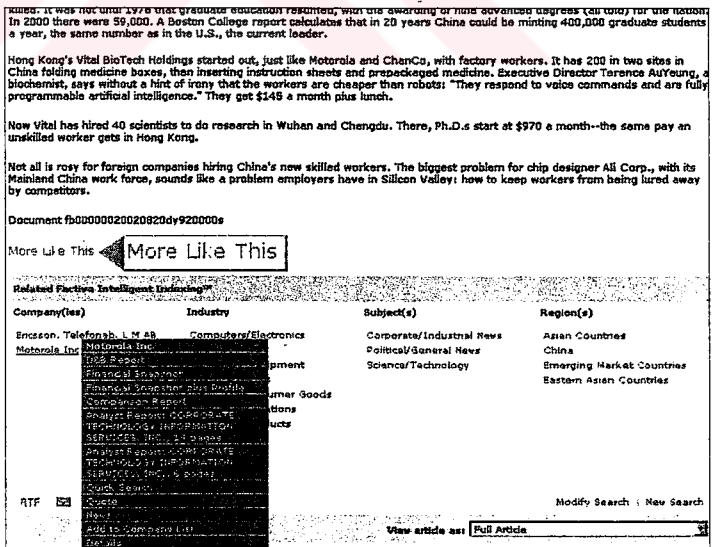



figure 3.3 Find similar articles in a mouse-click.

## Print your results

To have a hard copy of useful articles in a format that you prefer, click the viewing results, click the Print icon  above the headlines of the articles.

Use your browser's commands to print the items.

Alternatively, select RTF  or Format for Save  for other formats.

## Q. Want to find D&B or Investext company information?

A. Click on the company name and a blue menu bar will appear. Simply use your mouse to select the report [figure 3.3].

# How to Keep Track of Current Information

current-awareness tool that scans articles upon arrival to Factiva.com and continuously "crawls" hundreds of Web sites for news that matches your interests. The search is performed automatically, and your results are returned to a personal folder for online view, or directly to you. As with *Search*, content is available in 22 languages.

## Track Folder

eliminate the need to run the same search every day and to log on virtually any subject, company, industry, or region.

Click *Create New Folder* from the Track tab to display the Track Folder Creation Screen [figure 4.1].

Enter the folder name (up to 25 characters) in *Enter folder name* box. Follow the steps under "Add Factiva Intelligent Indexing™ terms" to create a new Track Folder.

## Track folder results sent via e-mail

Select *Delivery* to set your delivery options [figure 4.2].

To have e-mail articles delivered throughout the day in separate messages, click *Continuous e-mail*. To have results delivered in one message in the morning or afternoon, click *Scheduled e-mail*.

Click *Start Tracking*. Tracking will begin within 30 minutes [figure 4.3].

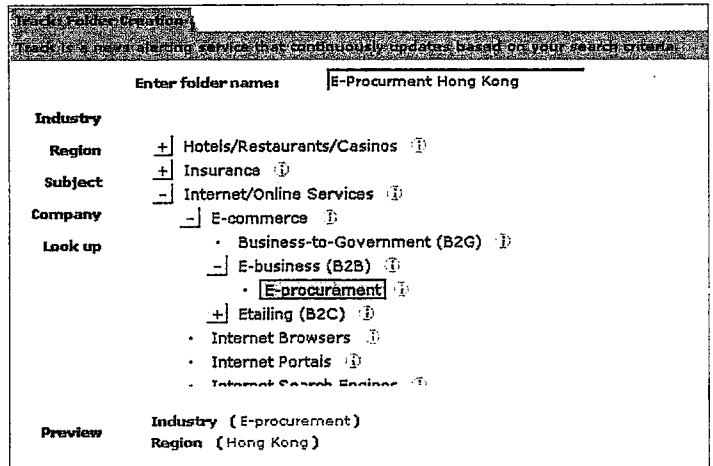
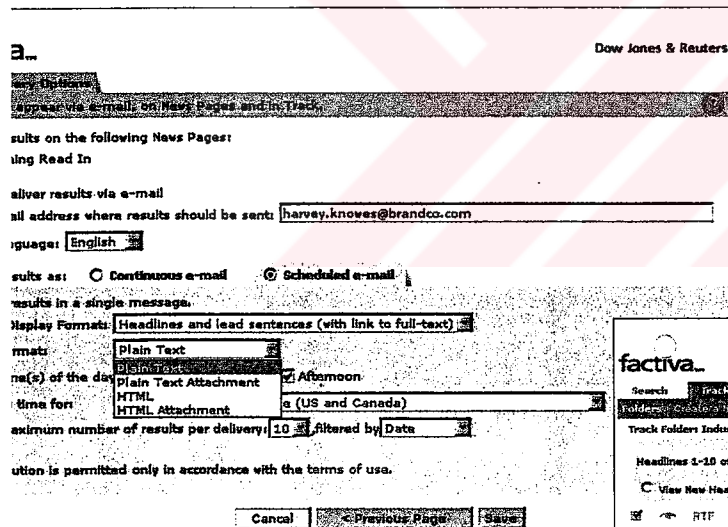


figure 4.1 Setting up a Track Folder is similar to running a search.

### TIP:

Run a search before clicking on *Save Search as Track Folder*. Why? So you can fine tune your folder before activating it.



You can customize delivery of articles from your track folder.

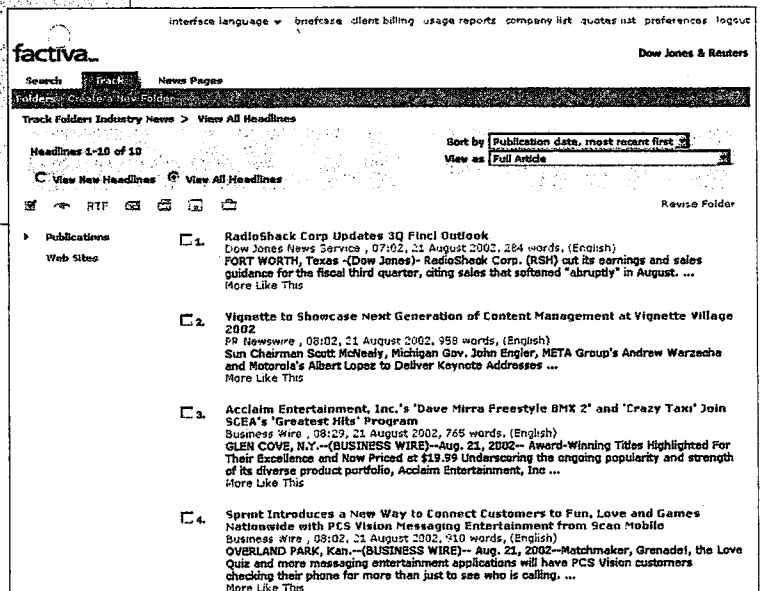


figure 4.3 Matching articles from your track folders display in Factiva.com or your e-mail



# How to Personalize Factiva.com

Buttons at the top of the Factiva.com screen allow you to perform tasks that are common to all of the product areas. For example, you can create a personal list of companies and quotes, view a Factiva.com home page, and even change the screen language [figure 5.0].

## Your own Company List

To reduce your company research time by grouping similar companies in a list.

Click the **Company List** at the top right corner of the screen. The **Company List** window displays. Search for companies by name or symbol, then highlight desired companies and click **Add Selected**.

Click **Create New List**. A **New List** window displays so you can type a name for this list [figure 5.1].

Click **Create List and Close**. The new list will be saved.

View the **Company List** when you use the **Company** tab from the main screen.

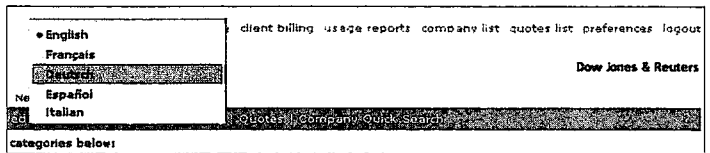


figure 5.0 Change preferences such as the default screen language and search interface.

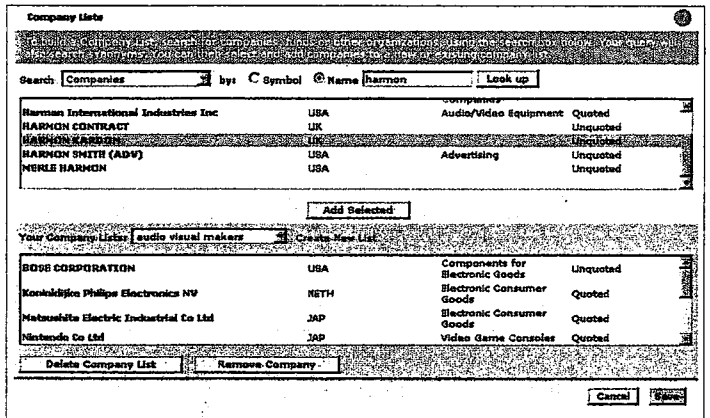


figure 5.1 Create a Company List based on regions, industries, or your projects.

## Your own Quotes List

To quickly access your portfolio of clients, competitors, and financial instruments. After you build a News Page (see page 6), add a **Quotes List** to your page. One **Quotes List** can contain up to 1000 global stocks, corporate bonds, mutual funds, and currency rates. Click the **Quotes List** at the top right corner of the screen. The **Quotes List** window displays.

Click **Create New List** to the right of the **Your Quotes List**: drop-down. Name your list and click **Create List** and **Close**.

Select the instrument type from the **Select Instrument** drop-down. You can only search one item at a time.

Search by symbol or name. If more than one code matches your search, a list displays. Highlight the desired item, and click **Add Selected**. The item appears in the bottom half of the screen.

Click **Save** to save this list. You can build up to 10 lists.

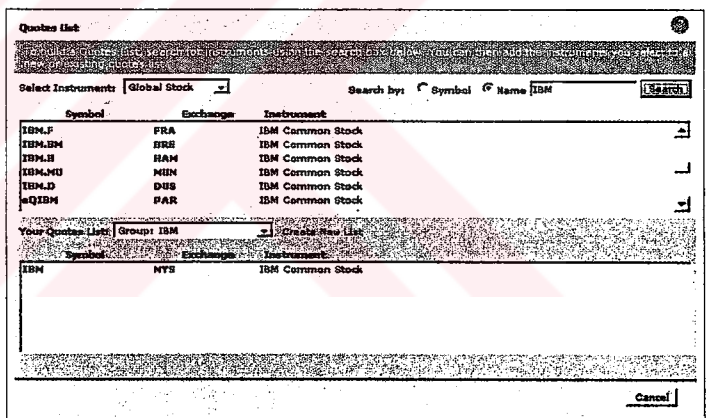


figure 5.2 The quotes list is a shortcut to frequently searched companies.

## Your Preferences

To save time by having your preferred settings automatically applied every time you log in (including default home page, date format, content language, and more) [figure 5.3].

Click the **Preferences** from the toolbar at the top of the screen.

Select the appropriate setting category: **General**, **Search/Track**, **Market Data**, **News Pages**, **Password**, and **Profile**. For example, to make a News Page your default home page, select the **News Pages** tab and choose **News Page** from **Default Views** drop-down.

Click **Save**. Your new settings will take effect immediately.

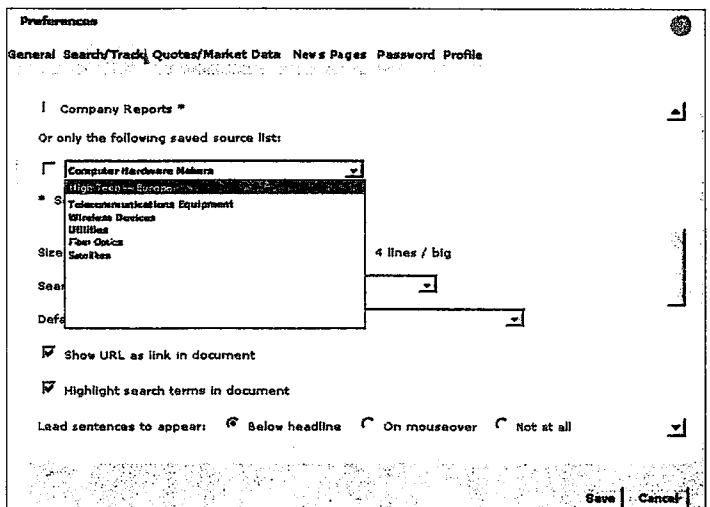


figure 5.3 Set your Search/Track preferences so your favorite Saved Source list will be the default.

# ng it all together with News Page

requently use the same product features, you can customize a Personal News Page and select it as your Factiva.com home page. If your organization need to stay current on the same topics, you can ask your group administrator to create a Group News Page for you. You can even follow topics of regional and current interest with prebuilt Factiva News Pages.

## Project information from your News Page

To get a single view of your Track Folder results, top newspapers, market performance, and links to key web sites.

Create a New Page under News Pages to open the set up screen. Customize this News Page on an industry, select an industry or a region from the Make this News Page about an Industry or Region from the Make this News Page about an Industry or Region dropdown. This adds the Editor's Choice, Latest News, and Top Publications components to the screen.

Drag and drop components to add to the Wide and Narrow Columns. Add. Your selections appear in the bottom half of the screen. Enter a name (up to 25 characters) for your News Page in the Name box.

Save. This News Page will now be available from your Personal Pages tab. You can build up to five Personal News Pages.

From your News Page your home page, click on preferences and select your News Page from the Default View drop-down menu from the General tab.

View the day's business news at a glance by setting up a Personal News Page.

With just one screen, you can view what major papers and markets are covering.

View the Personal Page that you've created.

Format News Page on the top right hand side.

Click on Newsstand and then click Add.

You will now see the Edit Sections page. Scroll through the list of publications, or click the letter of the alphabet to quickly jump to a publication of your choice [figure 6.1].

Click Add, or expand the the publication to make a specific section your default view.

You will see the list of selected publications within the My Newsstand box.

## Your News Page

As you create your own Company and Quote Lists, and build Track Folders and Saved Searches, you can add these items to your Personal News Pages.

Click on the components that are already displayed on the screen, click on the plus sign to expand that section. For example, to edit Newsstand, click Edit to view the publications you want to appear.

Click on the plus sign to add new sections, select Format News Page while viewing the News Page. Select the desired sections.

Click Save. Your News Page will now be available from the News Page tab.

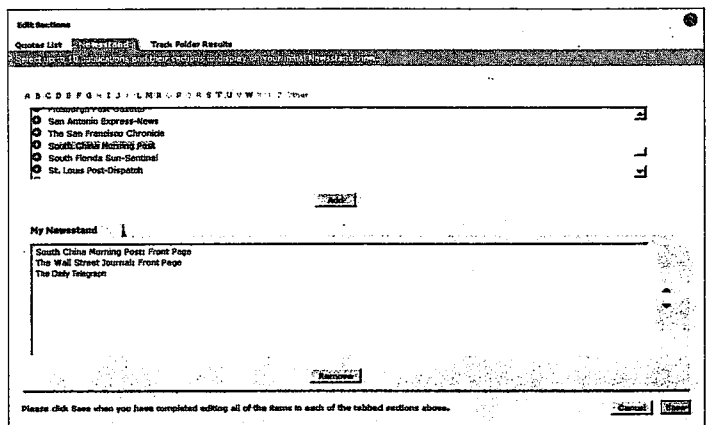


figure 6.1

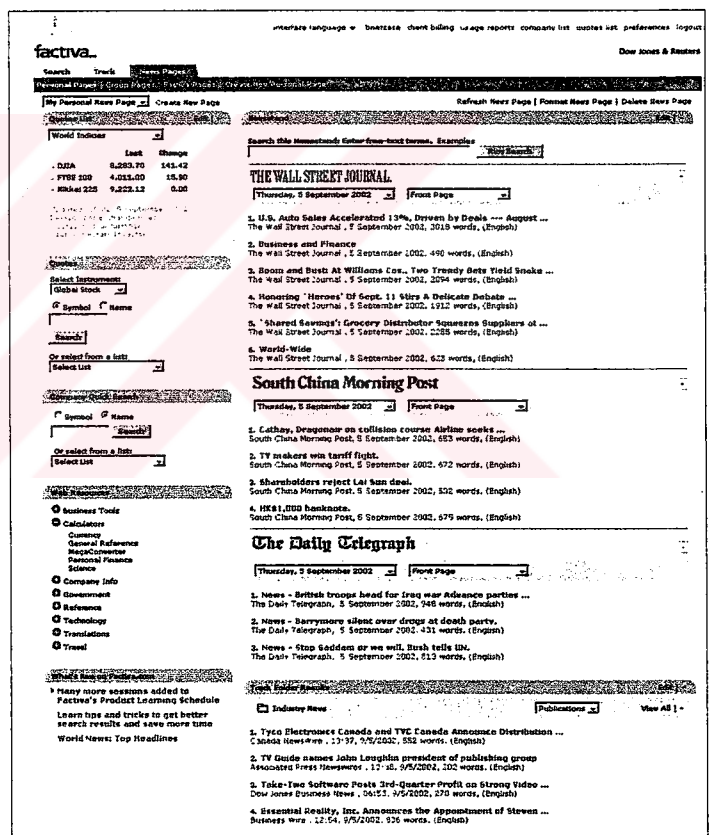


figure 6.2

## Q. What are the News Page components?

### A. Narrow Column:

**Quotes List** — view a personal saved Quotes List

**Saved Searches Index** — view or run one of your saved searches

**Company Quick Search** — get detailed company background and financial information

**Web Resources** — visit a useful Web site that's not included in the 10,000 sites crawled by Factiva.com

**Track Folders Index** — listing of all your track folders

**What's New on Factiva.com** — learn of enhancements to Factiva.com

### Wide Column:


**Newsstand** — view headlines from a top source

**Track Folders Results** — view headlines of a Track Folder

**Saved Search Results** — view headlines of any Saved Search

# Quick Reference Sheet

## Answers Online

For help. Available behind the  icon anywhere in the product.  
For a product tour: [www.factiva.com/factiva/tours](http://www.factiva.com/factiva/tours)  
How to use Factiva products anytime and anywhere with Factiva Learning Programs: [www.factiva.com/learning](http://www.factiva.com/learning)  
Customer Service and FAQ's: [www.factiva.com/customerservice](http://www.factiva.com/customerservice)  
Sources: [www.factiva.com/sources](http://www.factiva.com/sources)

## Boolean connectors and operators

To make your search statements more precise and accurate.

### Connector/operator Use it to identify items that contain...

All the words or phrases you enter.  
*technology spending and Canada*

One or more of the words you enter.  
*merger or acquisition*

Exclude items that contain these words.  
*software not spreadsheets*

Two words in the same paragraph.  
*vodafone same telecommunications*

Words mentioned more than once.  
*atleast5 Microsoft*  
**Note:** not available for Track Folders

Group words together.  
*press releases and (university or instruction or courses)*

Words that are spelled differently by one letter.  
*organization*

Words with multiple endings of any length.  
*telecom\**  
**Note:** You must enter at least three characters before using \*, and \* must be entered at the end of a word only.

Words with multiple endings limited to a certain number of characters.  
*earn\$4*  
**Note:** You must enter at least three characters before using \$, and \$ must be entered at the end of a word only. If no number is used, n is 5.

Words adjacent to each other in the order specified, within a certain number.  
*rugby adj5 World Cup*  
**Note:** Does not work across paragraphs for Track Folders.

Words adjacent to each other in the order specified, within a certain number.  
*Wireless w/3 mobile*  
**Note:** Does not work across paragraphs for Track Folders.

Words in the first few words of an article.  
*toyota/F50/*  
**Note:** Not available for Track Folders.

Words near another word in any order, within a certain number.  
*Carrefour near5 retail sales*  
**Note:** Does not work across paragraphs for Track Folders.

## Working with Search and Track results

### Headline Display Options



Select All places checkmarks next to all articles on the screen. You can also check individual articles.



View Selected will display the full text of any selected articles.

### Article and Headline Display Options



View As RTF automatically formats selected articles in Rich Text Format, and launches your word processor.



E-mail Results will let you e-mail articles in a variety of formats (e.g. HTML or Text, Full Article or Headline with link to full article).



Format for Printing will open a new browser window with selected articles specially formatted for printing.



Format for Saving will open a new browser window with selected articles in a text-only format.



Add to Briefcase allows you to save useful articles or headlines for later use, until you're ready to print, save, or e-mail these items. You can create 25 briefcases and store 100 items in each. Briefcases are retained until 30 days after the most recent item was added.

### Example:

**RIGHT:** wheat **and** (pesticides **or** herbicides)  
**WRONG:** wheat **and** pesticides **or** herbicides

**RIGHT:** Mercury **same** (Venus and Mars)  
**WRONG:** Mercury **same** Venus **same** Mars

**RIGHT:** atleast3 salt **and** atleast3 pepper  
**WRONG:** atleast3 (salt **and** pepper)

### How to enter words or phrases with punctuation

The following punctuation marks are optional: hyphens, periods, apostrophes, commas, and the slash (/) character. For example, entering "Coca-cola" will retrieve the same results as entering "Coca cola."

### Reserved words

There are a small number of words that must be enclosed in double quotes in order for them to be searched. These words are:

#### and or not same near date

For example, enter phrases like "not for profit" or "peas and carrots" within double quotes to retrieve documents with those phrases.

**Note:** There are no unsearchable words (i.e. "stop words") in Factiva.com.

## A QUESTION?

ONLINE CUSTOMER SERVICE  
[www.factiva.com/customerservice](http://www.factiva.com/customerservice)

THE AMERICAS  
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