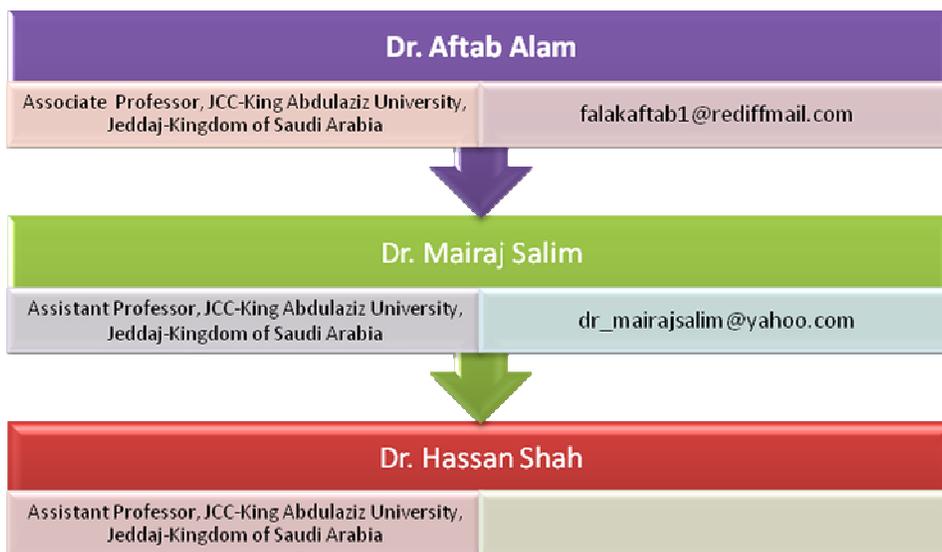




# The Potential of E-Commerce in the Insurance Industry: The Road Ahead



**Phase-III: Theme Based Paper**

# ABSTRACT

• While other industries within the financial sector have vigorously embraced the Internet to obtain sustainable competitive advantage, the insurance industry has been slow to fully adopt e-commerce. This article examines the benefits barriers as well as the success factors involved in making the transition to a Web-enabled insurance. Insurance Products suitable for E-commerce-Strategies for insurance companies as well as Emerging standards and technologies that will make possible the next generation of e-commerce in the insurance industry are discussed and presented.

# KEYWORDS

- e-commerce
- e-insurance

A developed and functioning insurance sector is a fundamental condition for economic success. The objective of insurance is to provide financial stability to individuals, organizations and businesses. As a risk pooling and transfer mechanism, insurance allows the insured to mitigate pure risks (i.e. risks that involve only the possibilities of loss or no loss). Examples of such risks are fires, flooding, ill health and unintentional damage to a third party. Insurance helps business to stay open and individuals to continue their work or education by providing

financial compensation if an insured risk occurs and causes damage. Even when no loss occurs, insurance provides peace of mind, a service of considerable, if unquantifiable, value. A detailed discussion on the development role of insurance can be found in Outreville (1990)<sup>1</sup>. As a financial sector, insurance is a major investor. The insurance sector covers long and short-term risk activities. It comprises three basic activities: life insurance includes common life insurance and life reinsurance with/without a saving component. non-life insurance<sup>37</sup> comprises insurance and reinsurance of non-life insurance business, e.g. accident, fire, health, property, motor, marine, aviation, transport, pecuniary loss and liability insurance. Pension funding<sup>37</sup> includes the provision of retirement incomes, but non-contributory schemes where the funding is largely derived from public sources. Reinsurance activities are included in one of the three sections, according to the kind of risk reinsured, e-Business W@tch (2002)<sup>2</sup>. The insurance sector is one of the most important service sectors regarding its basic function for the whole economy and society. Modern, highly industrialized and technology-driven economies are threatened by higher risks than ever; and individuals need to protect themselves against private risks as well as saving individually for their retirement. Insurance companies also play an important role as investors and shareholders. The insurance industry has been undergoing dramatic changes for a number of years. Significant movements toward deregulation in financial services, along with advances in telecommunications and computer technology are forcing significant changes upon the industry and making it far more competitive. If one were to enumerate the most significant technological innovations that the industry has faced in recent years, two in particular stand out, Garven (1998)<sup>3</sup>: The emergence of capital market alternatives to traditional reinsurance products, and The growing importance of computer networks such as the Internet in the marketing and distribution of insurance products. The result is the industry is becoming more competitive. The emerging role of electronic commerce (e-commerce) is particularly important and interesting to study.

Over<sup>4</sup> the last decade the world has seen a meteoric rise in e-commerce, which can be defined as the sharing of business information, maintaining of business relationships, and conducting of business transactions by means of telecommunications networks. Several<sup>5</sup> distinct categories of e-commerce have emerged. Although business-to-consumer e-commerce has received the most attention in the press, it is much less prevalent than business-to-business e-commerce. An increasing number of associated transactions and processes that support both selling and purchasing activities on the Internet can be also included in the definition of e-commerce. Although<sup>6</sup> projections vary, many analysts predict that e-commerce will continue to grow unabated. Forrester Research projects that global e-commerce will reach \$6.9 trillion in 2004; Gartner Group estimates that B2B e-commerce alone will skyrocket to \$7.3

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trillion in 2004, accounting for seven percent of all global sales transactions.

Indeed<sup>7</sup>, in spite of the dismal plight of the dot-coms of the late 90s, everything from real estate sales to education has moved online. Yet not all industries have experienced the same level of success in transitioning from the traditional retail approaches to the less clear-cut online models. Several areas within the financial services industry, such as banking and investments, have had a significant amount of success adapting to cyberspace. The insurance industry, on the other hand, has been lagging in its adoption of e-commerce. Although it is recognized that e-insurance has the potential to become a multibillion dollar industry, it is difficult to see how this will occur without some fundamental changes to the way e-insurance is being implemented. The current reality is that few available e-insurance offerings provide any real value and that less than 1% of all insurance sales are actually **being transacted online**. The growing importance of e-commerce represents a watershed event for insurance markets and institutions, as it does for most industries. By lowering information costs, e-commerce will enable insurers to classify, underwrite, and price risk as well as settle claims more accurately and efficiently. Overall, the Internet will significantly enhance the efficiency of insurance markets and institutions and benefit consumers by lowering transaction and information costs. E-commerce is potentially applicable to marketing and sales as well as R&D with respect to insurance value chain. On the other hand, as far as insurance products concern, auto (motor) insurance, marine and aviation, life insurance and fire insurance were highly perceived to suitable to e-commerce (sale online). There is no exception for insurance business that is currently experiencing a transformation with technology, an industry where electronic commerce will play a significant role (Grace 1998)<sup>8</sup>. In the past most insurance companies in other countries have employed the Internet to distribute information only, without offering the capability of online transactions. Trading electronically offers a number of advantages to companies. To take advantage of the opportunities created by e-commerce, companies implement websites that operate at a high level of e-commerce. Moore's e-commerce escalator (Moore 2000)<sup>9</sup> classifies websites into seven levels: website for corporate information, website for product/service information, customer support via Web, credit card order processing, web access to order information, purchase order processing and web-based marketplaces. Moore's classification identifies the different e-commerce capabilities that a website has. It is acknowledged that websites can be basic, including only company information or more advanced with functionality for generating market sales. A Web site can concentrate on one or more functions such as providing information and enabling transactions. The level of e-commerce to which a website is operating at has been measured as the number of different features in each category that the site contains. The research

distinguishes between twenty-six different features. These consist of seven corporate information features, five product / service information features, six customer support features, two online order processing features, four web access to order information features and two web-based marketplaces features.

A summary of e-commerce benefits and advantages are listed below, Turban and King (2003)<sup>10</sup>:

- Can increase sales and decrease sale costs
- A small firm's promotional message out to potential customers in every country in the world.
- Reach narrow market segments that are geographically scattered
- The Web is particularly useful in creating virtual communities for specific types of products or services
- A business can reduce the costs of handling sales inquiries, providing price quotes, and determining product availability by using electronic commerce in its sales support and order-taking processes
- Increases sales opportunities for seller, it also increases purchasing opportunities for the buyers
- Businesses can identify new suppliers and business partners
- Increases the speed and accuracy with which businesses can exchange information, which reduces costs on both sides of transactions
- Provides buyers with a wide range of choices than traditional commerce
- Provides buyers with an easy way to customize the level of detail in the information they obtain about a prospective purchase and they can instantly access to detail information on the Web without waiting for days
- Electronic payments of tax refund, public retirement, and welfare support cost less to issue and arrive securely and quickly when transmitted over the Internet
- Electronic payments can be easier to audit and monitor than payments made by check, providing protection against fraud and theft losses
- Electronic commerce enables people to work form home

As pointed out by Turban, the limitations of e-commerce are both technical and non-technical:

**Technical limitations:** these include problems pertaining to security, reliability, telecommunications, software, integration of Internet and e-commerce software with existing databases, and incompatibility of e-commerce software with certain operating systems and components. The most sustained problem is the security issue as the specter of hackers snatching and stealing information is always the main obsession to customers. Yet, with the emergence of new technology over time, these limitations are reduced or otherwise their impact overcomes by suitable planning.

**Non-technical limitations:** the main problem in this respect is the cost of developing e-commerce at home,

which might be very high and mistakes due to inexperience might result in delays. Furthermore, security and privacy are important issues when it comes to customer-business relationships. In fact the e-commerce industry has had very hard time trying to convince customers that on-line transactions are as secure as any other business transactions. Another issue lies in finding ways of persuading customers to do business with machines, as some customers like to touch items, such as clothes and to be sure of the reliability of the product they are buying.

One of the big differences between technical and non-technical limitations is that technical limitations can be solved (most of the time) by spending enough money - whereas non-technical limitations are things that are more difficult to change since they involve things that cannot be changed easily- like people's attitude, lack or trust, resistance to change, faceless transactions, etc

**E-commerce Barriers and concerns for Insurers** (Hann (1999)<sup>11</sup>:

- Top obstacles for the insurance industry:
- Resistance to change
- Threat of agent/broker disintermediation
- Lack of technology/regulatory hindrances
- Threat of insurance company disintermediation
- Lack of industry vendor solutions
- Top e-commerce concerns:
- Costs/impacts of moving off legacy systems
- Impact of legacy channel investments
- Lack of skilled information technology personnel
- Lack of e-business strategy
- Lack of enterprise technology architecture

It is widely recognized that e-commerce will enable insurers to significantly lower costs, realize business process efficiencies, improve customer service and brand loyalty, and enable insurers to better position themselves competitively. However, insurers cite as top obstacles factors such as resistance to change, threat of agent/broker/company disintermediation, lack of technology infrastructure, regulatory hindrances, and lack of industry vendor solutions. An earlier study by Booz, Allen & Hamilton reports similar findings, and also notes that the insurance industry's sluggish Internet pace can also be attributed to industry concern about unleashing price competition, channel conflict with agents, and the commoditization of insurance products (BAH (1998)<sup>12</sup>.

### Adoption of E-Commerce to Insurance

Certain industries, such as travel, banking, and retail, have embraced the emerging technologies that make electronic commerce possible. Some firms have gone as far as completely revamping their business processes. The insurance industry has made real progress in implementing some of the technologies of e-commerce, but the industry has been slow to adopt others. This is because insurers must carefully select which applications to implement, weighing the costs and benefits. Some applications of e-commerce used in other industries do not easily fit the business of insurance. Many others, however, present insurers with interesting possibilities (ISO (1997)<sup>13</sup>.

Insurance companies offering proper services through Internet, can be classified into the following categories (SwissRe (2000)<sup>14</sup>, and Dasgupta and Sengupta (2002)<sup>15</sup>:

- **Web Sites:** Almost every insurance company has homepage providing information about the company and products. However, these homepages are little more than passive online versions of the company's brochures.
- **Product Portals:** Portals are sites that provide a collection of links to sites of interest.
- **Point-of-Sale Portals:** Unlike most other commodities, the sale of insurance products is initiated by the sellers. Certain sites exploit this approach by offering insurance products while selling insurable goods such as cars or while providing information on health or college education.
- **Intermediate Brokers:** Brokers are intermediate sites that do not sell insurance products directly but assist clients in matching their requirements with the policies offered by insurance companies.
- **Reverse Auction:** In this case, the client is usually an organization interested in group insurance. The client announces its requirements and selects the best offer made by an insurance company.
- **Aggregators:** Aggregators are sites that compare quotes from different insurance companies. The service is often supplemented with general information on products as well.

### The Current State of Online Insurance<sup>16</sup>

The majority of the data available on insurance websites relates to the US. These data are analyzed and their implication for European markets considered. It is possible to identify five stages in the introduction and development of the use of new information technology in insurance markets:

1. Traditional insurers focus only on distribution and manufacturing. They do not consider Web-based distribution and manufacturing in their future development. Probably only a few companies do not at least pay minimal attention to how Web based systems might be used more broadly.
2. E-insurers start up with the focus on distribution. These new start ups are essentially Web-based independent intermediaries and make it easier for the consumer to compare prices between insurers that do not own the intermediary. Levels of complexity vary, but at its simplest, price comparisons only can be made, and in other cases the new company can manage the actual sale of the insurance product. Only simple products are sold through this mechanism.
3. Traditional insurers improve their Web-based capabilities. A common additional service is providing information about insurance and assisting consumers in assessing their insurance needs. This is the basic reaction to the arrival of new technologies. A wait and see approach has been adopted by a majority of traditional insurers as they evaluate the implication of e-commerce.
4. Online distribution capabilities are adopted more widely. Traditional insurers increasingly offer the capability to sell their own products online. Intermediaries increase the number of insurers whose products they include on their "shelf space" and they extend the range of products sold. At the same time, the manufacturing process is streamlined as e-enabled facilities are established to provide policies at minimum cost.
5. Competition between traditional and e-insurers becomes more intense. This is particularly true for the Internet distribution side. The provision of third-party products is necessary for companies to remain e-competitive if their only value proposition is lower cost at point of sale. This favors the separation of distribution and manufacture. The best companies should be able to increase their revenues by selling their products through all independent channels (traditional and Webbased), rather than rely on an exclusive distribution channel. In addition, those manufacturers that have e-enabled their business process, extracting maximum cost efficiency and benefits from economies of scale, should be in a position to offer the best cost based value proposition. At this stage, there is probably no company that can deliver substantial value-added advice to rival that of the advisor over the Web. E-insurers have empowered the consumer, acting as the catalyst that has forced traditional incumbents to fight back. In addition, many have now established business models for insurance e-commerce and are viewing e-commerce proactively as a means of increasing distribution and reducing costs. However,

at this time, the volume of insurance products sold via the Internet is relatively low. Business models for insurance E-commerce can be categorized with the classic "build/buy/borrow" model of business marketing strategy (Conning & Conning, 2000) classification:

- Company site (build)
- Contract/referral generator
- Sales initiation
- True online sales
- Online sales of specific products
- Supermarket/mall (buy)
- Carrier leads
- Agent referral
- Online agency
- Relationship-based (borrow)
- Portals, banners
- Event triggered links

### References

1. Outreville, JF, (1990), the Economic Significance Of Insurance Markets In Developing Countries, *40 Journal Of Risk And Insurance*, 57 (3).
2. E-Business W@Tch, (2002), the ICT & E-Business in the Insurance and Pension Funding Services Sector, *40 The European E-Business Market Watch*, Sector Report, ([http://www.empirica.biz/empirica/themen/ebusiness/documents/no05 .pdf](http://www.empirica.biz/empirica/themen/ebusiness/documents/no05.pdf)).
3. Garven, James R., (2000), The Role of Electronic Commerce In Financial Services Integration, *40 North American Actuarial Journal*, Vol. 4, No. 3, Pp. 64-70.
4. Zwass, V. (1996). Electronic Commerce: Structures and Issues. *International Journal of Electronic Commerce*, 1(1), 3-23.
5. Schneider, G. (2003). *Electronic Commerce - Fourth Annual Edition*. Course Technology. Boston, MA.
6. Philips, T. (2002). Experts say Web will transform industry. *Advanced Manufacturing*. [http://www.advancedmanufacturing.com/prediction\\_s.htm](http://www.advancedmanufacturing.com/prediction_s.htm)
7. Garven, J. R. (1998). *Electronic Commerce in the Insurance Industry: Business Perspectives*. Working Paper Series Number 98-3. Center for Risk Management & Insurance Research. Georgia State University. <http://rmictr.gsu.edu>
8. Grace, M.F., Klein, R.W. and Straub D., "E-Commerce in the Insurance Industry: Issues and Opportunities", In *Se-Com: Secure Electronic Commerce*. San Francisco, CA: Montgomery Research Inc., 306-310, 1998.

9. Moore, G. *Living on the fault line: managing for shareholder value in the age of the Internet*. New York : Harper Business, 2000.
10. Turban, E. And King, D., (2003), *Introduction to E-Commerce*, Prentice Hall, USA.
11. Hann, L. W., (1999), *stepping Forward Gingerly*, Best's Review, Meta Group: Survey of U.S. Insurance Market.
12. BAH, (1998), *tomorrow's Distribution Blueprint— Tailored To Fit, Insights*, Booz- Allen & Hamilton Financial & Health Services Group, Volume 3, Issue 3.  
([http://www.bah.com/viewpoints/insights/health\\_blueprint.html](http://www.bah.com/viewpoints/insights/health_blueprint.html)).
13. ISO, (1997), *Electronic Commerce in Property/Casualty Insurance: Strategic Advantage or Economic Imperative*, Insurance Services Office
14. SwissRe, (2000), *The Impact of E-Business on the Insurance Industry: Pressure To Adapt – Chance To Reinvent*, Sigma Series No. 5, Zurich.
15. Dasgupta, Prithviraj and Sengupta, Kasturi, (2002), *E-Commerce In The Indian Insurance Industry: Prospects and Future*, Journal of Electronic Commerce Research 2 (1-2), Pp. 43-60.
16. [http://rmictr.gsu.edu/Papers/EC\\_GR\\_Final.pdf](http://rmictr.gsu.edu/Papers/EC_GR_Final.pdf)


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