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E-COMMERCE REVOLUTION IN THE INSURANCE INDUSTRY PRODUCT DEVELOPMENT

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Abstract

The insurance industry appears to be lagging in the rapid evolution of financial services and e-commerce. However, insurers are still hesitant to approve policies online and are adding these services slowly to their sites for product development. This paper discusses some of the fundamental issues surrounding the use of alternative Internet business models in insurance, benefits, barriers as well as the success factors. An Extensive experience within the insurance industry and ability to deliver cost effective e-commerce solutions which suit our needs, are involved in making the Insurance Products suitable for E-commerce. Above all a Bird's eye description can help us in competing in the increasingly competitive insurance sector.

INTRODUCTION

Insurance companies are adapting to the Internet and are beginning to redesign workflows and increase internal efficiency. Consumers buying over the Internet look for added value. Ultimately, only the most efficient companies will be able to provide this value profitably. Insurance companies have focused on the use of the Internet by personal consumers to shop for insurance, but the scope of insurance activities potentially affected by e-commerce is much broader

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than that, giving rise to a host of interesting issues. These activities include not only transactions between insurers, intermediaries and buyers, but virtually every major business function performed by insurance firms. Hence, there is an array of potential applications, as well as alternative business models. This paper focuses on distribution, recognizing its interaction with other insurer business functions affected by information technology.

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 un-quantifiable, value. A detailed discussion on the development role of insurance can be found in (Outreville,1990). 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 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 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). 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): 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 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 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 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 trillion in 2004, accounting for seven percent of all global sales transactions.

Indeed, 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). 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) 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):

- 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 of trust, resistance to change, faceless transactions, etc

E-COMMERCE BARRIERS AND CONCERNS FOR INSURERS

(Hann - 1999) :

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).

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 present insurers with interesting possibilities (ISO -1997).

A typical e-commerce transaction can be divided into the following five phases (Dasgupta and Sengupta, 2002) :

1. Search
2. Valuation
3. Logistics
4. Transaction
5. After-sales services

The first four stages of e-commerce described above directly lend themselves to analogous steps for purchasing an insurance product online. Consumers search from different insurance companies for products that they are willing to purchase. They evaluate the products from different companies to determine the one which best suits their needs. The insurance company then conveys the terms of the insurance policy to the customer and the customer responds with details including a description of the entity being insured, the terms and the duration of the insurance policy. When both the customer and insurance company agree to go ahead with

the transaction, the buyer pays the initial premium to the insurance company and the policy certificate is sent to the buyer. The after sales phase of e-insurance is however considerably different from e-commerce. In e-commerce, human intervention is required for activities in the post-sales phase such as repair or replacement of parts. However, a major interaction between an insurer and the insurance company occurs in the post-sales phase if the insurer submits a claim for the amount insured. Online claim settlement involves complex interactions between the insurer, the insurance company and possibly legal and judicial authorities and, in an automated environment, requires close interactions between humans and automated agents. This phase is therefore the most difficult to implement over the Internet and online insurance sites mostly rely on human intervention for this phase. Insurance companies offering proper services through Internet can be classified into the following categories (SwissRe, 2000), and (Dasgupta and Sengupta, 2002):

- **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.
- **Aggregators¹:** Aggregators are sites that compare quotes from different insurance companies. The service is often supplemented with general information on products as well.

EFFECT OF E-COMMERCE ON INSURANCE COMPANIES

Insurance companies have regarded the Internet mainly as another channel of distribution for their products. Compared to online stock brokerage and online banking, development of the Internet in the insurance industry has been somewhat cautious. Websites mainly serve to provide information about the company and its products. Many insurers especially in developing economies have not seized the opportunities created by e-commerce for making all business processes more efficient, beginning with the online sale of policies. But the growing number of those who have embraced the technology is most encouraging, (Vress, 2002) and (Yao, 2004). There are some factors, which make the online selling of insurance products difficult (SwissRe, 2000):

The complexity of some products, e.g., tax-efficient life insurance policies, increases the consumer's need for specific advice. It has not yet been possible to automate the provision of information, although it can be assumed that continuing advances in technology will create new opportunities for automated solutions. The complexity of many insurance products can often be reduced by design modifications. In many cases, it is difficult to standardize claims settlement for example, as this involves a large amount of investigation and decision-making. This process often involves people and companies who are not in a contractual relation with the insurer. The Internet is particularly suitable for products where contact with the company is more frequent. Insurance is usually taken out infrequently, every couple of years or even once in a lifetime. Once a policy has been concluded, with some types of insurance the insurer and the policyholder have barely any contact, unless an insured event occurs. Also, existing insurance policies can often only be cancelled with a certain amount of effort. This makes the switch to an Internet insurer more difficult. Many consumers still view the Internet as an insecure medium. This prevents large transactions being concluded via the Internet, and it deters the transmission of confidential information, both of which are essential aspects of insurance policies. In personal line especially, regulatory hurdles make Internet distribution difficult. For example, as e-commerce increases the number of cross border transactions, licensing requirements in all jurisdictions where such transactions occur also apply.

INSURANCE PRODUCTS SUITABLE FOR E-COMMERCE

Not all insurance products are equally suited to Internet distribution. Their suitability depends chiefly on how much advice is required. The more complex the product and the bigger its financial scale or transaction volume, the greater the client's willingness to pay for advice. Products that are particularly suitable for marketing on the Internet are those that can be described and rated using a small number of parameters, such as motor, private liability, homeowners, household contents and term life insurance. These types of cover are also suitable for online price comparisons, which make the Internet even more attractive for potential clients. E-commerce also will have implications for the sale of more unique and complex insurance and reinsurance products particularly those purchased by commercial enterprises. These transactions rely heavily on information and communication and e-commerce can make this process more efficient. At the same time, the sale and servicing of complex insurance products will require different kinds of networks appropriate for individualized transactions. Security will be an important consideration here given the large amounts of insurance and proprietary information at stake, (UNCTAD- 2002). Products that are not necessarily suitable for online marketing include most life and pension products, health insurance and many commercial lines. But even these products can benefit from the huge opportunities for quality and service improvements presented by e-commerce.

If clients already have extensive product and risk expertise, the Internet can still be used as a marketing tool, despite the high complexity and transaction volume. Internet team room, for example, could support the consulting and negotiation process. Even if the conclusion of the policy and the associated advisory services occur with little or no online support, policy administration or claims settlement can still benefit from such support. For example, a client may seek independent advice when choosing a private health insurer, but is prepared to use online facilities to process and settle doctors' bills.

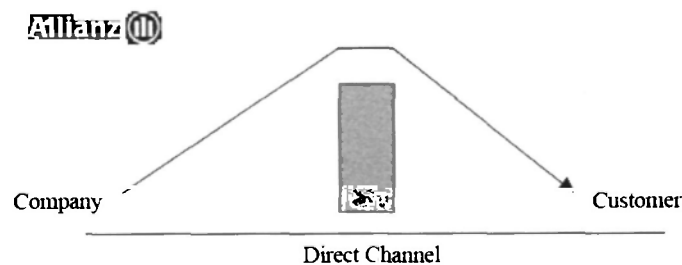
Brokers can use e-commerce solutions to bundle together the needs of a large number of clients, handle the administration themselves, and then forward the data to the insurer. Modern communication technologies allow more personalized products, faster response times, greater flexibility in covers and better support for risk management. However, there are ongoing debates about

the suitability of individual insurance product for e-commerce. The conventional wisdom is that obligatory, very simple or low-price products do not require a seller's push and thus can be distributed through e-commerce. The greatest demand is for motor vehicle insurance, followed by health, homeowner's and term life insurance. For instance, Progressive.com, a leader in the United States online insurance market, is currently offering only motor vehicle insurance and related products. Another prominent online insurer, Allstate.com, is more ambitious and offers motor, homeowner's, life and small business insurance policies. Amica.com provides only motor and homeowner's policies, and several types of life insurance. European insurers also vary in the scope of offered insurance policies. For example, Ineas.com provides motor vehicle, homeowner's and accident insurance while esure.com offers only motor vehicle insurance (Rakovska-2001). While many insurers continue to rely on their agency networks and cling to the hold not bought paradigm, there is little real evidence supporting it, apart from pronouncements about its genuineness that are often articulated by insurance agents and managers. What is needed to bring insurance online is the implementation of best-practice management and technology suited to e-commerce, (UNCTAD-2002).

INTERNET BUSINESS MODELS FOR INSURANCE PRODUCT DEVELOPMENT

As (Deloitte & Touche-1997) insurance markets have evolved, they are providing easier access and broader product choice. With the advent of the Internet, business flows have been reversed, as customers are able to approach companies in an open space environment. Below, we discuss the application of different Internet business models in insurance markets.

A. Model One: Marketing Support Only



The “marketing support” approach is the first step to e-commerce for most insurers. Many insurers feel comfortable maintaining this strategy in view of the nature of the customer base. The Allianz Web site is a platform designed to inform customers (or potential customers) and to present the company’s product and services. Each part of the company’s website offers possibilities for dialogue with experts by mail or telephone. It assures customers that it will connect them with the right expert, someone with answers and the ability to develop solutions. The company is still heavily dependent on its agency network. Its Internet strategy is therefore aimed at strengthening its traditional distribution channel.

B. Models Two & Three: Online Distributions of Traditional and Internet Products



Webinsurance (www.webinsurance.com) is a sales channel dedicated exclusively to insurance products provided by companies of the Winterthur Group.

C. Model 4: Online Administration



Online Administration possesses extended capabilities in offering services to different types of customers and intermediaries.

D. Model 5: Product Portals

Pivot.com (www.pivot.com) is a subsidiary of ilife.com, one of the well-known portals of online personal financial resources and e-commerce solutions. It has teamed with insurance companies to provide low-cost insurance solutions to consumers via Internet and the telephone. The site represents more than 100 insurance companies. In addition to enabling consumers to quickly and easily apply for insurance via Internet, the fully interactive Pivot Web site also provides insurance education.

E. Model 6: Point of Sale Portals

Special events are good opportunity to offer a series of complementary products. It is particularly suitable for companies with recognized power brands associated with expertise in satisfying specific business segments. BabyCenter, Inc (www.babycenter.com) leverages its position in one of the most important life-changing events, having a baby. Babycenter.com offers guidance, with an easy-to-use site that features original, high-quality content and practical advice from trusted sources, such as obstetricians, pediatricians, and fellow partners.

F. Model 7: Aggregation³

The Aggregator business model offers an electronic marketplace in which consumers can compare the products and prices of different insurers. The model is particularly suitable for independent financial advisors, brokers and knowledgeable customers. Most of the existing literature on e-insurance predicts that aggregators will expand rapidly in the near future and will be one of the most successful online insurance distribution mechanisms. They offer platforms for consumers to compare basic products offered by different insurers.

G. Model 8: Online Risk Market

This model is particularly relevant for the reinsurance market. The development of alternative risk transfer methods has created opportunities for innovative solutions to the transfer of special risks.

H. Model 9: Reverse Auction

The Reverse Auction model may be the most radical of all. A good example of this model is priceline.com. The business flow is reversed and buyers make bids. This way of conducting business is in its infancy and at the moment is mainly used in the B2B environment. This model may also penetrate personal insurance markets as consumers gain confidence in insurance e-commerce.

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