Insurance products are information products that can easily be converted into a digital format. Hence there is an obvious potential for electronic commerce in the insurance industry. So far IT-based innovations have focused on internal processes of production, while marketing and distribution still rely on personal contact with customers. However, insurance companies are becoming more visible on the Internet and it is possible to buy certain types of insurance directly on the web. This will make cross-border trade much more visible than today, as services can be delivered directly to the customer without involvement of a local subsidiary. This paper will highlight some of the drivers and barriers towards electronic delivery of insurance services and its impact on internationalisation of the insurance market.

Due to the limited possibilities for transporting many services, the level of international trade in services has remained limited compared to trade in goods. New telecommunication services and data processing technologies are however changing the tradability of information intensive services such as insurance and banking (K. Sauvant, 1991). Intangible service products such as insurance services and products from other information service industries can be delivered directly to the customer by use of the telecommunications network. Thereby, the major technical barrier towards international trade in services becomes obsolete.

Data-communication has for decades been integrated in the process of production for many types of knowledge intensive services. In particular the financial sector - most notably the banks - have been in the forefront in development of new applications of telematic services (UNCTAD, 1994). Exchange of information in digital form was developed first for intra-firm communication. Later on electronic connections have been established to other financial institutions and to major business customers. The SWIFT network managing international payment transactions established in 1973, is an early example of this.

A major barrier towards development of a full digital circuit, which includes all steps in production and distribution, has been the lack of an extensive electronic information infrastructure covering both business and residential customers.

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The Internet has created a new information infrastructure, which connects an increasing share of both businesses and private households. This opens up for electronic ordering and delivery of a wide range of products. This opportunity has been taken up by a large number of business actors providing goods and services via the network.

There are great expectations to the market for online insurance services. Data-monitor expects insurance to take up 5% of European online market (Information Strategy, May 1998). This will make insurance one of the most visible services provided on the net.

Insurance services can be fully digitalised and therefore not only sold but also distributed via the telecommunications network. Thereby the major technical barrier towards cross border trade is removed. However, tradability depends on technical as well as economic and political/cultural factors (Table 1). Trade must also be economically and legally viable. Cost advantages derived from economies of scale and scope may not be sufficient to justify the increase in transportation and transaction costs related to cross border trade, or regulation may limit or even inhibit cross border trade.

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Table 1: Key factors influencing trade with services
So far trade in insurance services on the Internet have been rather limited. This paper will identify some of the reasons for this. A short description of the sector and its activities will be followed with a discussion of the major barriers and drivers towards a fully electronic insurance market.

**GENERAL STRUCTURE OF THE INSURANCE INDUSTRY**

A broad distinction is made between life insurance and pension funding services, and non-life insurance services. The latter group includes assets and liability insurance. A third category is reinsurance. The reinsurance market enables the direct insurer to acquire capital support for their insurances.

Most customers have a long term relationship with their insurance company. Particular for life insurance and pension funding. One reason for this is the high transaction costs connected with a change.

Insurance is largely a nationally based industry. International activities are mainly established by foreign direct investments (FDI) in local affiliates. In the EU a total number of 146 branch offices counted in 1993 for as little as 7.4% of total gross premiums written (European Commission, 1997). Direct Cross border delivery of insurance services is also very low. There is some trade in specialised types of high yielding life insurances, while only few examples of cross border trade in non-life insurances exist. At the American and Japanese markets international transactions play an even smaller role than in Europe (OECD, 1996).

There are still substantial regulatory barriers towards an international insurance market. Within the EU, where a single insurance market was created in 1994, there are still substantial differences in rules and regulations. There is for instance no mutual recognition of diplomas and taxation rules differ from country to country. Even trade between different states in the US is hampered by regulatory restrictions (T. M. Levin, 1998). There is however a clear trend towards international harmonisation and liberalisation of the insurance market (N. Scordis & F. Katrishen, 1997)

**THE REINSURANCE INDUSTRY**

The reinsurance subsector differs in structure from the two other subsectors. Reinsurance is generally less regulated and much more internationalised. This subsector is also the most developed with respect to usage of electronic exchange.

Since the 80's a number of insurance networks have been established. These networks connect insurance and reinsurance companies with banks, brokers and other actors in the insurance market. The first national network - IVANS (Insurance Value Added Network Services) was established in the United States in 1983 by 21 insurance companies. The first international network - RINET (Reinsurance and Insurance Network) started up in 1989. These two networks dominate EDI based reinsurance in the US and Europe today (http://www.ivans.com; http://www.rinet.com).

**LIFE AND NON-LIFE INSURANCE**

Intensive use of IT has made it possible to automate many internal operations such as calculation of premiums. Furthermore brokers and insurance agents can use EDI for their communication with insurance companies. This can be done via the Internet as planned by the Ohio based Progressive Insurance Group. They expect all their more than 30,000 independent agents to download policy information from the Internet within two years (Best's Review, 96).

**THE ROLE OF ELECTRONIC DISTRIBUTION CHANNELS**

Still customer relations in particular with small business and residential customers are dominated by personal communication. One reason for this has been the lack of an adequate information infrastructure enabling cheap and user friendly electronic communication with this segment.

Therefore marketing and distribution costs rank immediately after policy payments and there is an increasing focus on costs reductions in this area. IT and electronic commerce play a crucial role in creating new distribution channels, as use of expert systems and on-line support services partly can substitute the personal contact with an insurance agent.

A number of alternatives to distribution by salaried employees exist. Some of these alternatives depend on intensive use of IT.

**REFERENCES**


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Europeisk Rejseforsikring (European Travel Insurance), homepage, http://www.europaeske.dk


IVANS: Homepage, http://www.ivans.com;


These alternatives represent different degrees of out-sourcing:

- Tied company agents, not employed but contractually bound to the company and remunerated on a commission basis.
- Independent brokers, remunerated on a commission basis.
- Usage of other existing distribution networks e.g. bank affiliates or retail stores.
- Direct writing by customers themselves.

The present organisation of distribution channels differs from country to country. In principle there are two different models of distribution: The Anglo-Saxon model and the model applied in Continental Europe. In the Anglo-Saxon model in English speaking countries, distribution is dominated by independent brokers. In Continental Europe the insurance companies control their own distribution channels, but distribution mediated through bank affiliates becomes more widespread. In France 50% of the life insurance policies are sold in this way. Products are in countries following the continental model more comparable and standardised as a tight regulation has limited product innovation.

The Internet can be used as a delivery channel where the customers do the writing themselves. The customer related use of the Internet can be connected to three different functions:

- Marketing and general information
- Provision of offers, acceptance and underwriting of policies
- Reporting of insurance claims

Payments are made electronic, but not necessarily by use of the Internet.

It is thus possible to provide end to end insurance service on the Internet, and direct physical presence in the form of an agency or an affiliate becomes in principle redundant. In the US the number of insurance companies having an Internet site has grown from 4% in 1995 to 20% in 1997 (A. Levin, 1998). However very few insurance companies offer interactive online services (L.A. Gjertsen, 1998).

Most companies use only the Internet for marketing and general information. Some companies offer quotation facilities calculating the price for a specific type of insurance on basis of information typed in by the customer (e.g. age and health condition).

Full Internet based provision of insurance is most likely to take place in sectors where standardised short term insurance products are mediated. A typical example is travel insurance. European Travel Insurance offers a standard travel insurance directly on the Internet, the customer only has to type his name, destination, the period for the trip and a few other details and the insurance is written automatically if the offer is accepted (http://www.europaeise.dk). Car insurance is another area suitable for Internet based provision. Electric Insurance Co. has developed an automated risk assessment enabling them to offer online quotation and enabling policy issuance over the Internet (S. Schwartz, 1998).

In life insurance and other types of long term insurance, the underwriting process is less costly compared to the overall costs and customers will be more reluctant to order an insurance without personal advice.

**CONCLUSION**

The Internet has created a new distribution channel for digital information products, and information services are becoming more transportable. This can, in combination with the ongoing relaxation of regulatory barriers, lead to an internationalisation within a number of national based knowledge intensive service industries.

The insurance sector has been a sector which has been highly regulated and where cross border transactions have been limited. The often limited number of foreign affiliates have been managed as independent domestic companies, with no pretence that the Head Office can intervene at a detailed level (UNCTC, 1993).

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**RINET:**

Homepage, http://www.rinet.com


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1 Interview with Thomas Niklasson, Zurich Insurance Company
Electronic distribution in a more liberalised market will enable more cross border transactions.

This will first have an impact on travel insurance and other types of standardised high frequency insurance. For other types of insurance a number of barriers towards cross border trade still persist. Differences in culture and traditions for design of an insurance policy increase the transaction costs. It may also be more difficult to establish the needed trust between insurer and insurance company without any personal communication. Many types of insurance services build on a long term relationship between insurer and insurance company, and involve high initial costs, for instance related to physical inspection of assets or medical examinations. In these cases, it is much more complicated to operate on a distant market without physical presence, and growth in cross border activities must be expected to develop more slowly.

Another important barrier is related to rivalry between different distribution channels. In the US insurers get half of their revenue from their agents, and the principal factor in the reluctance to commit to the Internet as distribution channel is the fear of offending them (A. S. Friedman, 1998).

Although cross border trade will become widespread only for certain types of insurance services, it will contribute to internationalisation in all parts of the industry. Electronic commerce will reduce the barriers of entry on new markets, as electronic delivery will help to reduce the costs of establishment of a local distribution network - even if some local presence will still be necessary.

The management of confidence has been historically affected by brand-name recognition. In the nonvirtual world, the mere presence of brand name is sufficient to create confidence in relatively unimportant decisions, as for example the purchasing of little amounts of products or repetitive purchases, and in generic products of easy specification. In effect, brand name recognition performs different functions:

a) An identification function; the brand identifies the product according to its main characteristics. It also leads to a specific configuration of attributes. Therefore, the brand itself constitutes valuable information of the characteristics related to a specific product offer.

b) A reference function: the brand helps the buyer to identify himself, brand contributes in structuring and organizing the market offer.

c) A guarantee function: the brand is a public commitment of quality and performance. It is a given promise. It assures the permanence of quality that is expected of it.

d) A personalization function: the selection of certain brands allows individuals to place themselves in relation to their desired social status. In making a selection a person shows his desire to be different from his peers or, on the contrary, to integrate himself.

e) A playful function: it corresponds to the pleasure that is experienced when purchasing. The presence of multiple brands makes certain buyers experience a feeling of true animation and results in a source of stimulus.

f) A practical function: instead of having to repeat a complete decision process on each occasion, the brand facilitates the memorization of previous selection processes and the conclusions of consumption experiences. The brand is in this sense, a summary of information related to past purchasing experiences. Taking into consideration that the

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**Mapping Insurance Transaction Streams**

**Introduction:**

**Confidence, Brand and Insurance**

It can be noticed that there is a lack of confidence in on-line products and services (Choi, et al. 1997). In order to respond to aspects related to security, technological tools have been developed such as cryptography, firewalls and digital certificates.

The lack of confidence stems, in part, from time asymmetry and information asymmetry. In effect, even if Internet reduces the time for some transactions to be completed, most real world transactions require some form of movement of goods or services, thereby introducing time asymmetries in the process of exchange of assets between transacting parties. Time asymmetry brings the notion of risk (perceived or real) to each of the agents involved in the transaction who must invest resources before receiving a return. Information asymmetry also affects the on-line market; in electronic markets the physical product is not examined, only a representation of it. This situation imposes certain limitations on knowledge of the product and, therefore, uncertainty regarding its quality or that of the vendor.

Confidence is pervasive in all the client relationship process. The notion of confidence implies the deposit of resources (money, time, personal information) into the hands of another party for use for his/her own benefit, or of the buyer, or both. Without the appropriate level of confidence, the exchange of information between individuals and organizations will be limited. There are three essential aspects related to confidence: to be led to a selection in which the end is foreseen as a happy or a painful event, to realize that the event depends on the behavior of the other party and finally to perceive the intensity of the negative event superior to that of the positive one.