Chapter 3. e-Insurance

3.1 Malaysia's e-Insurance

Recognising the potential of the Internet to both the providers as well as consumers of insurance products and services, BNM allowed in 1999 a group of insurers to establish the industry 's first interactive insurance website, which enabled policy owners to transact online renewal of their motor policies and payment of premiums (BNM2000b). The scope was further expanded in April 2000, when eligible insurers and Takaful Internet Insurance in Malaysia operators were allowed to offer the full range of life, general and Takaful products for the purchase and/or renewal of policies on the Internet.

The Internet provides new business opportunities and potentially many effective ways to improve business activities for the insurers. At the same time, there is the *first-mover advantage* to establishing the competitive position in the cyber market place. However, it must be recognised that the Internet's unique broad access in terms of geography, users, applications, databases and the connectivity of computer systems has created a whole host of new risks besides the existing traditional risks faced by the insurers. As a financial service industry built on customer confidence and trust, it is therefore imperative that the insurance transactions offered on the Internet must be implemented in a manner that will continue to support and protect policy owners' interest as well as the ability of the insurer to meet its fiduciary obligations to policy owners.

3.2 Guidelines on Internet Insurance

In order to ensure the orderly development of the use of Internet in the domestic insurance industry, BNM issued the Guidelines on Provision of Internet Insurance/Takaful by Insurers and Takaful Operators (the Guidelines) in October 2000 (BNM2002). The Guidelines serve to identify the potential risks of offering insurance using the Internet as a distribution channel and prescribe the minimum requirements, which insurers should observe in this regard. The Guidelines also indicate the documents to be submitted by insurers in their application to seek BNM 's approval to conduct Internet insurance, including the attestation by the Chairman of the Board that the insurer is ready to use Internet to provide insurance. The Guidelines merely prescribe the minimum requirements, which insurers must observe in the provision of Internet insurance.

Insurers should be self-vigilant, diligent and pro-active at all times and adopt more stringent security management measures in the provision of insurance products and services via the electronic media. The Guidelines aim to inform insurers the following areas:-

•Types of Internet Insurance Websites

Internet insurance websites are categorised on the basis of the potential risk exposure to the insurer. Purely information-based websites where the risks to a certain extent are less, are predefined and non-interactive. An interactive website has higher risk potential and provides for transactions to be executed, which may or may not involve online payments.

•Internet Insurance Risks

A relevant and important consideration for all businesses is to properly identify and evaluate the prevailing risks in order to manage them. Internet insurance risks may be identified under several categories. Strategic risk arises when the Internet insurance business is not implemented in line with the vision and business objectives of the insurer. Scalability and accessibility of the insurer 's website may result in operational risk exposure. Transaction risk, which may be due to deficiencies in system design, implementation or ineffêctive monitoring, may result in fraud, errors and the insurer 's inability to deliver insurance products and services offered as agreed. Security risk can be broken down into data privacy and confidentiality risk, data integrity risk, authentication risk and repudiation risk. Violation of laws and prescribed practices or ethical standards will result in compliance risk, which will threaten customers' trust in the insurer and the possibility of non-enforceability of contracts. Likewise, the insurer will face reputation risk when systems, procedures or products do not work as expected causing widespread negative public reaction. Connectivity risk arises due to the very inherent nature of the Internet environment of interconnected computer systems that can potentially create a systemic effect that offers a threat of total failure, incapacitation or compromise in the insurer 's business activities. The offer of insurance on the Internet may also change the traditional insurance risks such as underwriting risk and investment risk.

•Risk Management Framework

The fast growing, highly dynamic and accessible Internet technology will continually pose issues for consideration such as those relating to security and customer protection. In order to be able to react quickly and to be proactive in managing any new risks that may arise, an insurer should draw up a risk management framework (RMF). The RMF should be comprehensive enough to address known risks and flexible enough to quickly accommodate and address any new risks. For the RMF to be effective, the Board of Directors (Board) of the insurer must fully endorse the framework. The RMF should outline policies, procedures and controls to protect and ensure the integrity, availability and confidentiality of information and transactions.

In view of the significant investment required and the potential opportunities and risks in deploying the Internet technology, the insurer needs to continually measure and address the extent Internet business meets the insurer's strategic goals. Effective planning is an essential tool to assist the insurer to identify and quantify risks relating to the use of technology in order to maintain a manageable level of risk within the insurer 's risk tolerance level and to continuously assess the impact on performance and financial conditions of the insurer.

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The insurer must also put in place a written security policy to address concerns on security and privacy of transactions on the Internet. The written policy should address security risks such as data privacy and confidentiality, data integrity, authenticity and non-repudiation of transactions as well as network and access controls. To be effective, insurers should put I place security arrangements which are a combination of critical technologies as well as thorough and documented security procedures. Insurers should keep abreast and adopt the latest security measures such as firewalls, virus protection software, encryption, virtual private networks, public key infrastructure and payment protocols.

The insurer should also establish a contingency and business resumption plan before the implementation of Internet activities to ensure the continuity of the provision of insurance and good customer services, in the event of any system failure or unauthorised intrusions. An objective audit and review of the adequacy of internal controls is critical to detect weaknesses in the risk management systems.

To ensure that customers are not misled by any means, all information displayed, including those on products and services must be fair and accurate. Securing the trust and confidence of customers takes on an even greater significance in the Internet-enabled environment. As such, the insurer must put in place measures to educate customers on the products and services available and the customers 'rights and responsibilities in transacting on the Internet.

3.3 Potentials of Internet in Improving Business Efficiency and Effectiveness

Experiences in developed markets have shown potential commercial benefits that insurers can gain such as the incremental value generated from improved customer services, more convenient customer access, innovative distribution channels, more effective and better usage of information as well as greater opportunities for product differentiation and new product development. At present, the Malaysian insurance websites are predominantly information-based. Therefore, it is time that insurers capitalise on the potential of the Internet to improve their business efficiency and effectiveness. This may no longer be an option but a necessity as global financial markets adopt the Internet technology for wider use.

3.4 A sample e-Insurance Business Model

Figure 1 shows a sample new business model enabled by Internet and Internet-enabled technologies (IBM 2001a).

The Customer-Centric Business Architecture provides for flexibility and yet business control.