

Web 2.0

technologies



CHALLENGES AND POSSIBILITIES

THE BRAZIL CASE

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The development of the microinsurance market poses several challenges to be confronted, one of the most important of which are the management costs. Bearing in mind the high volume and low value, how can the distribution of the premiums and claims handling of a large volume of policies be carried out in the most efficient but cheapest manner? Web 2.0 technologies (blogs, wikis, social networks, Software as a Service...) can cooperate with the financial feasibility of microinsurance supplier companies. But in the case of Brazil, other challenges will have to be faced, such as the access to these technologies by microinsurance target clients and the small insurers. There are also

in the microinsurance market

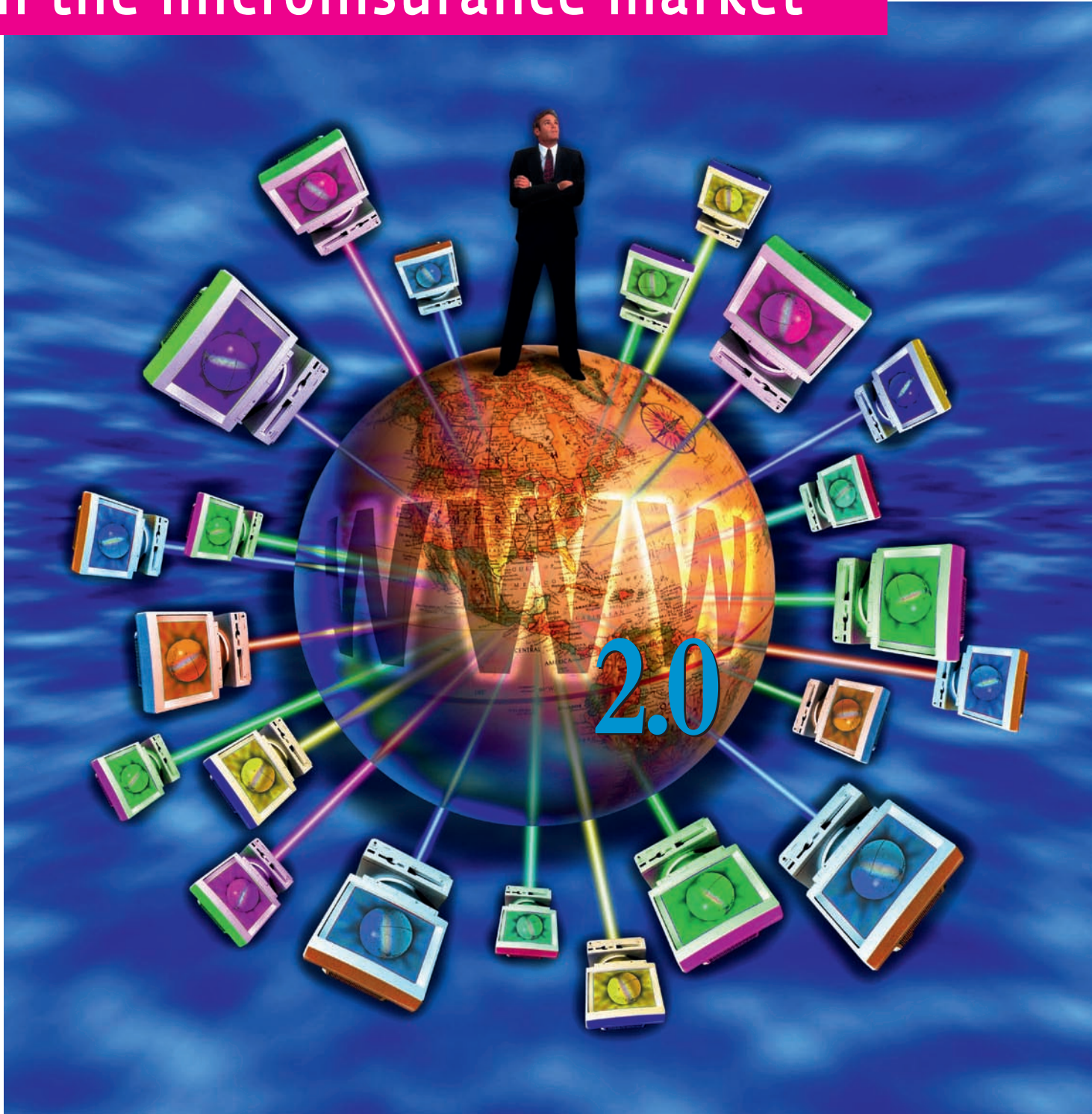


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opportunities such as the government programme for digital inclusion and the fact that Brazil is the country with the highest proportion of Internet users that use social networks and blogs to keep in touch.



1 Introduction

Projections indicate that the Brazilian insurance market should grow rapidly over the next five years as a result of the economic growth and the social ascent of those with low incomes who are microinsurance potential clients.

The insurance market's share of Brazil's Gross Domestic Product (GDP), which is currently 3,2 %, could reach 6% (Brazil, 2010) (Accenture, 2009) thanks mainly to microinsurance, which has an estimated potential consumer market of around 70 million people (Bester, 2010).

The Brazilian Government has specific policies which were set up for micro-finances and which include the provision of insurances for the low income population. Microinsurance is aimed at those low income households that normally cannot be protected by other insurances and/or social security schemes. It should be noted that microinsurance is not an assistance programme, since it contemplates the payment of normal premiums and, in return, provides adequate protection for the insured (Brazil, 2008).

The development of microinsurance presents several challenges. One of the most important is the management cost; how can distribution, premium administration and claims management be carried out in the most efficient and economical manner for a large number of low value policies? Innovation will be vital in finding solutions to these challenges and Information and Communications Technologies (ICT) can contribute to sustainability for microinsurance suppliers (Churchill, 2007).

The insurance sector requires intensive use of Information and Communications Technologies which give rise to cost reductions and increases in productivity. According to the technology consultancy firm Accenture (2010), insurers worldwide will be investing more in web platforms. Most companies consider that, over the next three years, most services for clients and collaborators will be provided via Internet. The study indicates that insurers will focus their investment priorities on mobile technologies and digital marketing, including social networks. Apart from being a lower cost platform, it enables insurers to reach youngsters of the generation Y or digital natives.

In this context, Web 2.0 technologies (blogs, social networks, wikis, Software as a Service...)¹ can contribute to the sustainable development of microinsurance.

This is of special importance for microinsurance since, without technology, it is difficult for a product with an adequate cost to be viable for low income classes.



WEB 2.0 TECHNOLOGIES (BLOGS, SOCIAL NETWORKS, WIKIS, SOFTWARE AS A SERVICE, ETC.) CAN CONTRIBUTE TO SUSTAINABLE DEVELOPMENT OF MICROINSURANCE

The purpose of this article is to evaluate the possibilities, opportunities and challenges for the application of Web 2.0 technologies in the Brazilian microinsurance market. Therefore, in the following section we look at the question of microinsurance in Brazil in the context of the insurance market.

In the third section we present the concept of Web 2.0 technologies, highlighting its application for companies in general and the insurance market in particular.

Subsequently, in the fourth section, we reflect on the possibilities for its application in the Brazilian microinsurance market and, in the last section, we evaluate the opportunities and challenges of Web 2.0 technologies in that same market.

2 Brazil: Economic context

With a population of 191 million inhabitants who live in an area of 8.514.876.599 square kilometres (IBGE, 2011), Brazil is the fifth largest country in the world in terms of population and territorial extension (Nichter, 2002)(United Nations, 2011). It is the eighth largest economy in the world (Banco Mundial, 2009). In 2010, the rate of growth of the Gross Domestic Product (GDP) was 7.5%. In values, the Brazilian GDP amounted to R\$ 3.674.964 million reales (1.570.497 million euros) (BACEN, 2011).

The Brazilian financial system is technologically updated and offers sophisticated products and services. In respect of the insurance market, in 2009, insurance and reinsurance written premiums, capitalisation and pension contributions amounted to 95.347 million reales (34.671 million

euros)(3.2 % of Brazil's Gross Domestic Product), thus constituting the most important insurance market in Latin America and the 16th in the world (Brazil, 2010)(Sigma, 2010).

THE POSITION OF MICROINSURANCE IN BRAZIL

It is very important to define the concept of microinsurance and low income population in order to regulate this segment of the market and thereby develop specific products for this social group.

The *Superintendencia de Seguros Privados* (Private Insurance Superintendency) (SUSEP) of the Treasury Department is the body responsible for supervising the Brazilian insurance market. The SUSEP adopted the following wording to define the concept of microinsurance: «Microinsurance is the financial protection against specific risks afforded by authorized providers to the low income population in return for the payment of premiums, proportional to the probabilities and the cost of the risks involved, in accordance with the legislation and internationally accepted principles of insurance»².

Another important definition is the concept of low income population which varies according to

¹ The list of Web 2.0 technologies is very wide. We will focus our attention on the more common and useful technologies used in today's companies.

² The International Association of Insurance Supervisors (IAIS) recommends that the Basic Principles of Insurance should be the focal point and future basis for regulation and supervision of microinsurance in all jurisdictions. The International Monetary Fund and the World Bank use them for evaluating the insurance supervisor's activity. The Basic Insurance Principles provide a globally accepted framework for the regulation and supervision of the insurance sector (IAIS, 2007).

the jurisdiction. In the case of Brazil, amongst the various variables that determine the various concepts of «low income», apart from the average value of the family income, one should take into account the level of schooling, the physical characteristics of the home, the existence of a fixed telephone line and the ownership of durable goods, amongst others. The concept is complex and there is not yet a final definition but, in principle, for an initial estimate of the target audience for microinsurance, it was decided that the low income population, for the purposes of microinsurance in Brazil, is made up of that portion of the inhabitants that have a monthly income of up to three minimum salaries (1,634 reales or 698 euros)³.

The level of up to 3 minimum salaries includes close to 128⁴ million people (Brazil, 2008)(IBGE, 2006) (Bester, 2010).

It is important to emphasize that, in Brazil, there are already other types of insurance that include low income persons (popular insurance), but for them to be considered microinsurance it is indispensable that this product has been developed specifically for this segment of the population. The following are examples of products with microinsurance characteristics already sold in Brazil:

- PASI or *Plano de Amparo Social Imediato* (Immediate Social Protection Plan): A programme developed in 1989 by an insurance broker with the insurer, MAPFRE Insurance. Its main focus is on civil construction workers and, today, there are 2 million insureds. It distributes Group Life and Personal Accident insurances.

³ 1€ = 2,34 reales as quoted by the Brazilian Central Bank on 2nd.May, 2011.(www.bacen.gov.br)

⁴ Extremely poor persons (class E) are not included. This population is already attended by the government social programmes.

- SINAF Insurance: SINAF sells policies that range from R\$ 12.50 to R\$ 30 (5 to 13 €) per month, which offer different levels of cover. The principal component is that of funeral assistance as well as «income substitution» in the event of death of the insured. SINAF covers over 500.000 lives, all in the low income class (Bester, 2010).

The Law project of Microinsurance (Nr. 3266/2008) is in the process of being approved by the National Congress. Amongst other questions, the document urges the authorization of specialized insurers by means of a special regulation and permits alternative distribution channels. It also refers to the differentiated fiscal treatment for microinsurance operations.

Certain factors that are driving microinsurance in Brazil should be highlighted:

- The Brazilian Government microcredit programme. There are considerable synergies between the microinsurance and microcredit programmes in Brazil. Institutions that began operating solely with micro-credit operations are now also offering some products with microinsurance characteristics.
- The Brazilian financial system is the largest in Latin America. In 2008 the Brazilian banks had more than 9.000 branches, 158.600 automatic cash machines (ATM) and around 3.2 million points of sale (POS) (BACEN, 2008). By Latin American standards, this represents a very high level of penetration for automatic cash machines and point of sale mechanisms (Bester, 2010). In Brazil an important share of insurance sales is via banking (Brazil, 2009).
- Brazil has a wide network of retailers which consists of, at least, 70.000 shops (PWC, 2007) (Abrás, 2011). This has facilitated the



appearance of important distribution channels for some insurance lines, such as credit life insurance and extended warranty.

- In Brazil, over 98% of the population has access to the public electricity service (IBGE, 2010). Depending on the extent of this service within the low income population, the Public Service Concessions can act as distribution channels for microinsurance.

- The Brazilian Government income transfer programmes. More than 18 million Brazilians have come out of poverty and 31 million have joined what is known as the new middle class, which already amounts for more than 53% of the population (Cetelen, 2011).

- The bank correspondents. These are alliances between banks and non-banking entities (kiosks, chemists, food stores). They are distribution networks to distribute financial services for banks. Thanks to the development of the bank correspondents, 100% of town halls have cover from the financial services distribution network. Although bank correspondents are not currently authorized to carry out insurance sales, the fact that they have become a popular distribution channel for financial services represents a significant potential for the distribution of micro-insurance (Brazil, 2009a).

3 Web 2.0 technologies

The term Web 2.0 was born in 2004 and became popular as a result of its most representative applications such as wikis⁵, blogs⁶, syndication of contents (RSS)⁷, folksonomy⁸, Software as a Service⁹ and social networks and the excessive offering of tools trying to capture users / generators of contents (Cobo, 2007).

According to O'Reilly, the main promoter of Web 2.0, it is constituted on seven principles (O'Reilly, 2006):

1. The World Wide Web as a work platform to offer services on the Internet thanks to the sum and combination of diverse technologies.

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2. The strengthening of collective intelligence. As users add new content and links, the network connections grow organically as a result of the collective activity of all Web users.
3. Data base management as a basic competency. Amazon has the same original data base as other online bookshops. Today its data base is much more powerful since, from the start, it applied a policy of enriching information from that supplied by its users.
4. The end of the cycle of software version updates. The initial closed software model, with user rights and under the principle of planned obsolescence, is broken and has become the use of software as a service available on the Web itself and in combination with data.
5. The light programming models together with the quest for simplicity.
6. Software not limited to a sole appliance. The use of the Web 2.0 products is not limited to computers. Mobile phones, ipods and iphones start to occupy space reserved only for computers up until now.
7. The users richer experiences. Web sites have evolved and now embrace complete software experiences which facilitate interaction and immersion of new innovative ways.

Blogs are an example. The ease of creation, productivity, possibility of indexation and visibility of search engine justify its success (Cobo, 2007) (Joyanes, 2009b).

Prior to the development of Web 2.0 technologies, people with no technical ability were hardly able to create a web site and now, with the new technological elements, anyone can develop a web page or create a blog and configure a more cooperative and participative interactive Web (Dans, 2009).

For businesses, the new social technologies offer new channels to listen to what their clients have to say about their products. Before, when a



client had a problem, the only resort was to claim against the company responsible. Today, dissatisfied clients are turning to social networks to complain about poor service (Celaya, 2008). Moreover, the new technologies enable knowledge to be spread

⁵ Wiki. Web site, the contents of which can be edited collectively in such a way that it can be created, modified and visualized by any user that has access to the wiki. Wikis are flexible, are easy to use and have a low cost (Joyanes, 2009a). In finance, the banks are using wikis with the objective of improving communications and cooperation with employees. Investment banks have been pioneers in using wikis as a tool to increase internal productivity. Since 2009 Commerzbank has been using wikis in its Information Technology departments. It was then used in the business units to the completion of audit documents by the legally binding dates. Their use made the jobs easier for those teams that had to work together in this respect (Domínguez, 2009).

⁶ Blog. Web site in which the user send entries (posts) like a diary which are visualized in inverse chronological order. (Joyanes, 2009a).

⁷ Syndication. Contents distribution system which enables text, audio or video content to be sent automatically to other web sites or users' computers that have requested it, without the need to surf the web (Nafria, 2007).

throughout the company, distribute information about products and improve internal cooperation.

WEB 2.0 TECHNOLOGIES OR SOCIAL SOFTWARE

Web 2.0 technology or Social Software is an emerging Information Technology that is being used in a range of applications and types of platform designed to facilitate personal interrelations in computer networks. Web 2.0 technology allows individuals to interact in such a way as to combine their intelligence and capabilities.

Web 2.0 technology is a broad and flexible software that encompasses tools such as blogs, wikis, social networks, tags¹⁰ and virtual worlds such as Second Life and instant messaging. The heart of social software is a group or dynamic environment that allows individuals to interact in such a way as to combine their intelligence and capabilities (Joyanes, 2009a).

ENTERPRISE 2.0

The first person to use the term Enterprise 2.0 was the Harvard Business School professor, Andrew Macfee, who valued the potential use that companies could make of the Web 2.0. technologies. His definition is: «Enterprise 2.0 is the use of emergent social software platforms within companies, or between companies and their partners or customers» (Macfee, 2006).

In their last report of 2009 the consultancy firm, Mckinsey, stated that 69% of the 1.770

companies that participated in the survey recognised that they had obtained quantifiable benefits thanks to the adoption of Web 2.0 technologies.

According to the report, the most used Web 2.0 technologies in the last three years are blogs, social networks and wikis (Mckinsey, 2009).

An Orange Foundation report (2009) highlights that Spanish companies apply Web 2.0 technologies internally in processes such as knowledge management, cooperation tools, training and product development and externally in cooperation with clients to improve client servicing, win new clients, distribute product information, receive opinions from users, even encouraging their

⁸ Folksonomy. The term was coined by Thomas Vander by combining the words «folks» (persons) and «taxonomy» (classification, which comes from the Greek word *taxís*), to express the impact of the persons in the classification. Taxonomies are normally hierarchical and define relationships *a priori* between terms from above to below. In folksonomy the categories used do not follow a logical hierarchy but rather the tagging decisions of the users (Joyanes, 2009a).

⁹ Software as a service (SaaS). The supply, on demand, of applications such as software which do not require users to install it on their computers. It is software as a universal service such as light, water, etc. (Joyanes, 2009a).

¹⁰ Tags. Consisting of marks to describe and put information into context. They allow the user to arrange, classify and share specific content through one or more words. It has become a means of organising information. The tags try to organize the accessible information in the network thanks to the participation of the users (Joyanes, 2009b).



WEB 2.0 TECHNOLOGY IS A BROAD AND FLEXIBLE SOFTWARE THAT ENCOMPASSES TOOLS SUCH AS BLOGS, WIKIS, SOCIAL NETWORKS, TAGS AND VIRTUAL WORLDS SUCH AS SECOND LIFE AND INSTANT MESSAGING

participation in the design of products. Blogs, videos, content syndication (RSS), wikis and social networks are the technologies most used in these processes (Orange Foundation, 2009).

WEB TECHNOLOGIES 2.0: RISK AND CHALLENGES TO BE OVERCOME

It should be borne in mind that, despite the positive aspects of Web 2.0 technologies, there are also risks and challenges to be overcome, such as:

1. Many analysts consider that it is not possible to measure and justify the costs of investment in participative technologies. According to Newman (2008), using the same methodology used to measure the Return on Investment (ROI) for other technologies and with a little innovation, the ROI¹¹ of the Web 2.0 technologies can be obtained.
2. Control of contents. The main risk with the Web 2.0 technologies is the loss of control of the message and, as a consequence, non-desirable attributes can be attributed to products.
3. Another important risk is the possibility of loss of data.

However, considering the value of information in the business environment, to block access to Web 2.0 technologies could prejudice the competitive advantage of an organisation. The instantaneous character of communication in the Web 2.0 world is an important part of the attraction of these business tools although there are important risks in respect of security and confidentiality.

To create and impose the compliance of the usage policies to ensure safety and confidentiality of all the information is the key and, also, to make sure that employees are fully aware of the risks of using these tools (*Financial Times*, 2010).

WEB 2.0 TECHNOLOGIES IN THE INSURANCE MARKET

In the United States of America, several insurers already have a presence in the social media with a view to getting closer to their clients, creating and building communities around their brand and products with the objective of creating client loyalty (Fuentes, 2010).

In Spain, companies are now following the trend of the cooperation model and the Web 2.0 technologies are being incorporated more effectively (Capgemini, 2010). Insurers consider that the principal benefits that the Web 2.0 technologies provide are to do with improving the experience of the client (26% of the insurers), differentiation from the competition (18%) and increasing client loyalty (15%). The most used technologies are blogs, social networks, content syndication, wikis and microblogging (Capgemini, 2009).

It should also be pointed out that, in the Brazilian insurance market, the development of the social Web is still timid amongst insurers but, little by little, Web 2.0 technology is being incorporated. Certain pioneer insurers are successfully using wikis, blogs, social networks, Software as a Service (SaaS), microblogging¹² (Apolice, 2010).

Gerelle and Berende (2008) carried out the study «Technology for microinsurance-scoping» with the purpose of compiling an inventory of



IN THE UNITED STATES, SEVERAL INSURERS ALREADY HAVE A PRESENCE IN THE SOCIAL MEDIA WITH A VIEW TO GETTING CLOSER TO THEIR CLIENTS AND CREATING CLIENT LOYALTY. IN SPAIN, COMPANIES ARE INCORPORATING WEB 2.0 TECHNOLOGIES MORE EFFECTIVELY

computer technologies which are or could be applicable for extending insurance services to low income family groups. Of those technologies that have already been developed, the most worthy of mention of those already referred to are Software as a Service (SaaS) and Web applications 2.0¹³.

It should be stressed that the technology group of the Consultative Group to Assist the Poor (CGAP)¹⁴ supported the idea of the SaaS models for small microfinancial institutions as a potential way of reducing the barrier for entering the market. SaaS has great potential as a way of administering technology costs –especially for those financial institutions with more standardized processes.

¹¹ Return on Investment (ROI). Ratio between net income and costs.

¹² Microblogging. Tool that allows the user to send, free of charge, a text message with a maximum length of 140 characters. The reason for the 140 character limit is that telephone text messages (SMS) limit each message to 160 characters. Twitter is the most famous with more than 90 million users.

¹³ Web applications. Programmes that are accesible via Internet.

¹⁴ CGAP. Consortium of 33 development agencies (public and private) that work together to extend the access of the poor to financial systems in jurisdictions that are under development.

4 The application possibilities of Web 2.0 technologies in microinsurance supply companies in Brazil

Microinsurance has various peculiarities that distinguish it from conventional insurance:

- For example, having to collect a large number of small premiums results in a high transaction cost which increase the tariffs.
- A fast and efficient claims system is essential for the success of a new microinsurance product. People with low income who are not very familiar with insurance tend to have a negative perception of it, due to the slow speed of claims handling and the rejection of claims due to technical subtleties (Churchill, 2007).

Web 2.0 technologies can cooperate with the financial feasibility of microinsurance supplier companies. There are interesting possibilities of applying these technologies in the client interface area (sales, claims management, client knowledge, client management and monitoring the brand).

In the internal field, there are important applications for knowledge management, product development, training and the administrative / financial management of the company (Salles, 2010).

For example, with the client interface, a Brazilian technological consulting company now offers a system that administers the sale and contracting of insurance by SMS (Short Message Service) through the mobile phone. This platform facilitates the service for brokers and automates the internal work for insurers. The sale of insurance by



this method implies several advantages. The use of the mobile phone is widespread in Brazil and the cost of capturing clients is very low compared to other ways (Apóllice, 2010).

For claims management, microblogging (Twitter) could be used for fast communication of the claim by the broker to the insurer or between the loss adjuster¹⁵ («regulator») and the insurer and, also, a wiki could be used for the preparation of the claims advice (the document that registers all information / documents on the claim). In general, this document is prepared both in the insurance brokers office and that of the insurer. The objective is to accelerate and reduce the cost of the claims management process.

Blogs and social networks can be used for client knowledge and for managing and monitoring the brand. Content syndication (RSS) can be very useful for providing the latest information, promoting new policies or news of special interest about the insurer.



WEB 2.0 TECHNOLOGIES CAN COOPERATE WITH THE FINANCIAL FEASIBILITY OF MICROINSURANCE SUPPLIER COMPANIES. THERE ARE INTERESTING POSSIBILITIES OF APPLYING THESE TECHNOLOGIES IN THE CLIENT INTERFACE AREA

For example, in the internal field, one of the most successful microinsurance supplier models is the agent partnership model. The main characteristic of this model lies in the association between a traditional insurer and a microfinance institution (IMF) (Arruti, 2009). In this case, a social network could be created, for example, to develop a specific project and it might not be evident how to locate persons with an adequate profile in the two companies who can contribute with their experience in the project.

The use of Software as a Service (SaaS) is preferable with investment in open source software to access software applications for actuarial, statistical and management matters. By using open source tools, the software costs are reduced considerably since licensing rights are not payable (Joyanes, 2009a).

Internally, blogs and wikis could be used for knowledge management and podcasts¹⁶ and videos for personnel training. Since the staff that works in the field has to explain and, perhaps, sell insurance products to their clients, they should have a detailed knowledge of this type of activity.

¹⁵ A loss adjuster («regulator») is the person responsible for the investigation and settlement of claims. It can be an employee of the insurer or a service providing company.

¹⁶ Podcast. Audio or video recorded file which users can download automatically to listen to on their computer or MP3 player. The podcast is becoming an important corporate communication tool.

5

Web 2.0 technologies and microinsurance in Brazil: Challenges and opportunities

CHALLENGES

- In the case of the application of Web 2.0 technologies in the Brazilian microinsurance market, certain challenges will have to be met such as the limited access of the microinsurance target audience to computers and broadband. Hardly 32% of homes in Brazil have computers and, of these, only 27% have Internet access. In rural areas, the percentage of homes with Internet access drops to 6% (GCIT, 2009).
- With regard to broadband, in Brazil, it is expensive, is slow and concentrated in high density population areas. In 2009, the average spend of Brazilians with broadband was 4,58% of the average monthly income per capita. In developed countries, this expense is only 0,5%. Taxation is one of the factors responsible for the high cost of broadband in Brazil. The incidental taxes on broadband, worldwide, are around 17% and, in Brazil, these taxes reach 45% (IPEA, 2010)(CGIT, 2009).
- The result of a survey carried out with over 3.000 executives in 13 countries shows that Brazilian companies are amongst those that most limit the access of their employees to the social networks. According to this study, 44% of Brazilian companies only permit the use of these digital channels with some form of restriction and 26% of them prohibit their employees from accessing these channels (Half, 2011).

- According to the United Nations, the mobile phone in Brazil is considered to be the fourth most expensive service in the world. The rates charged to the Brazilian users are only superseded by the Japanese, the French and the Australians (ITU, 2010).

OPPORTUNITIES

However, there are opportunities which can change this situation such as the government plans for digital inclusion for the population which will permit the low income classes to purchase computers paying very low interest. The Broad Band National Project should also be mentioned, with prices which are more accessible for the low income population and where the objective is for broadband to reach the whole country in 5 years time. Other opportunities are:

- The Brazilians love of social networks and blogs. Brazil is the country that has the highest percentage of Internet users that use sites to keep in touch and, moreover, spend more time on the social networks and blogs. The most popular social network in Brazil is Orkut (Nielsen, 2009).
- It is also important to point out the participation of those centres that charge (cyber cafés, telephone booths) as a computer or Internet access element. The cyber cafés present opportunities to access the population's less favourable groups. The Brazilian Government needs to take these Internet access charge centres into account in its digital inclusion policies (CGIT, 2009).
- Brazil has 147 million (75% of the population) mobile phone users (CGIT, 2009). In the insurance field, there are examples in which the mobile phone platforms work as an auxiliary mechanism for the sale of microinsurance and claims management.

FINAL CONSIDERATIONS

Microinsurance will mean that insurers have to attend to the insured through an efficient model with a reduced cost and which should get to increase the importance of the Internet channel. Moreover, insurers are more and more aware of the fact that the digital natives and future insurance consumers have different ways of communicating and consuming. Web 2.0 technologies can carry out an important role for the business to become feasible and microinsurance providers sustainable, making the products accessible to the low income population with a low level of financial culture and also improving the client relationship.

There are interesting possibilities of applying these technologies principally in the external field in the client interface (sales, claims management, client knowledge and brand monitoring and management). On the internal side, there are important applications for use in knowledge management, product development, training and in the company's administrative and financial management.

In the case of the future microinsurance market in Brazil, some challenges will have to be faced such as the limited access to computers and Internet of the target population. These challenges will impose limitations on the application of Web 2.0 technologies in the Brazilian microinsurance market, especially in the rural areas of the poorer regions. The elimination of these barriers will depend on the results of the government digital inclusion programmes. ■

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