Digital distribution in insurance: a quiet revolution
Executive summary

A quiet revolution is underway, with technology re-configuring the traditional insurance distribution model.

Technological innovations are breaking up the traditional insurance distribution process and re-configuring standard intermediary functions. Distribution has progressively broadened from an own-sales force versus agent/broker paradigm to a wide variety of direct and indirect channels between insurers and existing and potential customers.

The internet and mobile devices are impacting distribution, but the overall share of e-commerce sales is still low.

The newest direct sales channels – the internet and mobile devices – currently command a small portion of the market in terms of premiums. Agents and brokers, and other intermediaries such as retailers, banks and affinity groups continue to dominate sales. However, the statistics on e-commerce insurance mask the impact new technologies have already had on the overall distribution process.

Nonetheless, new technology is fundamentally changing how consumers and firms interact with insurers.

The internet is fundamentally affecting customer buying behaviour, from preliminary insurance information search to other pre-sales activity such as soliciting advice and obtaining personalised quotes, to policy issuance and post-sales services for the policyholder. Likewise, mobile technology and telematics are changing both the location and timing of interactions between insurers and their customers, allowing the retrieval and dissemination of information from almost anywhere at any time.

Combined with Big Data these developments are prompting far-reaching changes in insurance.

Innovations in distribution are also facilitating access to a rich source of data about customers and fostering advances in predictive analytics, collectively labelled Big Data. These developments have the potential to radically alter the way in which insurance is designed, priced and sold. Many insurers are starting to explore Big Data initiatives. However, the applications are largely preliminary and the expected returns from the related investment remain highly uncertain.

The direction is clear: new technology will eventually enable customers to arrange most of their insurance needs through remote digital channels. This evolution of distribution will probably continue gradually, at least for the majority of business lines. Countries are at different stages of digital transformation and technical, cultural and institutional factors mean that not all will proceed along the same adjustment path and at the same pace. Yet the example of the UK motor insurance market – where e-commerce sales now dominate – shows how quickly consumer buying patterns can change.

Intermediaries can still play a key role, but will need to adapt to their customers' changing needs and preferences.

Importantly, digital transformation does not spell the end of intermediaries. Technology has spawned new types of intermediaries such as price comparison websites. For traditional intermediaries, many of whom fear being squeezed out by direct sales, digital distribution need not lead to channel conflict. Customers will continue to value the personal interaction and expert advice of agents and brokers, especially for complex commercial and life and health risks. The challenge for intermediaries and insurers is therefore to adapt their business models to meet the varying needs and preferences of customers, while at the same time keeping the costs of integrating and maintaining multiple distribution channels under control.

As competition intensifies, insurers with strong brands and technological know-how will thrive.

Technology-led shifts in distribution increase transparency, empower customers and lower barriers to entry in some markets, which can lead to further commoditisation of insurance products. Successful insurers in the more price-competitive world will be those who can build trusted brands and reputations for good service. Additionally, telematics and a shift to more usage-based insurance will allow insurers to provide personalised cover and more risk-based pricing to further differentiate themselves from their competition.

The road to successful innovation in distribution requires a culture that fosters experimentation and accepts failure during the design process.

Distribution innovation can help meet demand from some customer segments for targeted but limited interaction with their insurers. It can also make insurance viable for low-income individuals currently underserved by insurers. However, successful innovation requires a culture that fosters experimentation and accepts failure during the design process. The key is to harness the insights from data and analytics to not only improve risk selection and pricing, but also to use the technology to make insurers’ products and services more customer centric.
An evolving distribution landscape

Distribution relates not only to sales but also a wide range of additional activities. Distribution – how products or services are delivered or more generally how companies interact with their customers – is a key aspect of insurers’ business models. Many may think of distribution as the sales channel alone, but in a broader sense distribution refers to activities beyond the actual purchase/sale transaction. For example, it includes the provision of and access to information on products and prices, negotiation between insurer and consumer, purchase/sale completion, and beyond (See Figure 1).

Figure 1
Activities in the insurance distribution process

These activities have traditionally been bundled together by specialist intermediaries such as agents and brokers.

Intermediaries continue to play the dominant role in distribution in most insurance sectors.

Role of insurance intermediaries

Traditionally, specialist firms have bundled together some or all of these distribution activities and intermediated between customer and insurer. In large part, this is because insurance markets are characterised by incomplete and asymmetric information. Prospective customers are often unaware of the full suite of insurance products available and/or the most appropriate insurance provider. On the other side, insurers cannot fully observe potential customers’ characteristics and behaviour when assessing and pricing the adequate level of risk coverage. Intermediaries can help overcome some of these information problems, generating economic value for both customers and insurers through economies of scale and reduced co-ordination costs.

Intermediaries continue to dominate distribution for most insurance sectors around the world (see Figure 2).1 Traditional intermediaries account for more than 60% of insurance contracts sold, according to one recent global study.2 Direct sales in terms of premiums, including those by insurers’ own sales forces, typically represent less than a quarter of all insurance sales.

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1 The discussion in this paper excludes health insurance.
Note: The shares of premiums for direct and intermediated insurance by region are based on simple averages of sector-wide shares for selected countries in each region. In most cases, the data refer to 2011 or 2012.

Source: National insurance associations and supervisory authorities and Swiss Re Economic Research & Consulting calculations

Widening set of available distribution channels

New types of intermediaries from both within and outside insurance are nevertheless becoming more prominent, challenging the traditional agent-broker model. For example, bancassurance – an arrangement in which a bank and an insurer partner to sell insurance products, typically through the bank’s branch network – has become an increasingly important distribution channel in a number of countries in Europe, Latin America and Asia, especially for life insurance (see Figure 3). Likewise, strategic alliances between insurers and firms from other sectors such as retailers, post offices, utility companies and affinity groups have emerged as an alternative means of distributing insurance.

Figure 3
Change in share of premiums by different sales channels by region, 2007 to 2011

Note: The shares of premiums for direct, agent/broker and bancassurance are based on simple averages of sector-wide shares for selected countries in each region. In most cases, the data compare developments in 2011 against 2007.

Source: National insurance associations/supervisory authorities and Swiss Re Economic Research & Consulting calculations

3 The nature of the relationship between the insurer and the bank can differ and includes combined manufacturer/distributor, exclusive distribution arrangements and multi distribution arrangements. For more discussion of bancassurance models, see Swiss Re, sigma No 5/2007.
An evolving distribution landscape

Direct sales have also increased as the distribution model has widened to include multiple sales channels. At the same time, new technology and shifts in consumer preferences have led to increased direct sales through channels such as telephone call centres, internet, direct mail and interactive TV. Increasingly, consumers can purchase directly from insurers without relying on the services of brokers and agents. As such, the prevailing model of insurance distribution has progressed from a simple model of own sales force versus agent/broker to one with multiple sales channels (see Figure 4).

**Figure 4**
Traditional vs modern distribution channels in insurance

- **Traditional model**
  - Insurer
  - Agent/broker
  - Customer

- **Modern multi-channel model**
  - Insurer
  - Agent/broker
  - Retailer
  - Bank
  - Other intermediary (e.g. employer)
  - E-commerce: internet, telesales, etc
  - Own sales force

Source: Swiss Re Economic Research & Consulting

Growing importance of multi-channel, multi-touch interaction

E-commerce sales are increasing, although they remain modest. The share of premiums accounted for by online sales or telemarketing has increased in many countries, especially in lines such as motor insurance where the nature of cover has become increasingly standardised. The UK motor insurance market in particular has been transformed by the internet (see Box: "UK online motor insurance"). In many countries however, overall e-commerce insurance premiums remain relatively small (Figure 5). Furthermore, the penetration of e-commerce is generally less in insurance than in other industries. In the European Union for example, e-commerce represents around 14% of total sales across all sectors compared with an average of less than 5% for insurance purchases.6

**Figure 5**
E-commerce sales of insurance in selected countries

Note: In most cases, the data refer to 2011 or 2012.
Source: Various sources including national insurance associations and supervisory authorities and Swiss Re Economic Research & Consulting calculations

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5 Based on European countries for which detailed e-commerce insurance premium data are available.
The internet has transformed motor insurance distribution in the UK. The internet has transformed the distribution of personal motor insurance in the UK over the past decade. The UK’s first wholly online car insurance service was launched in 2000 and this was quickly followed by similar offerings from other insurers. Despite initial views from some in the industry that online sales would remain marginal, by 2009 the internet had become firmly embedded in the mainstream and has become progressively more important. According to market estimates, direct internet sales account for around 20% of all UK personal motor insurance both in terms of premiums and number of policies (see Table 1), and have displaced the telephone as the key growth platform.

### Table 1
UK personal motor insurance in 2012 by distribution channel

<table>
<thead>
<tr>
<th>Distribution Channel</th>
<th>Percent by Value (gross written premiums)</th>
<th>Percent by Volume (number of policies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct — internet</td>
<td>20</td>
<td>23</td>
</tr>
<tr>
<td>Direct — telephone</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>Brokers</td>
<td>31</td>
<td>32</td>
</tr>
<tr>
<td>Price comparison websites</td>
<td>24</td>
<td>21</td>
</tr>
<tr>
<td>Retail partnerships</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Banks/building societies</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: UK competition commission calculations based on data provided by the top 10 UK motor insurers; includes rounded numbers

The increase in online sales has occurred in conjunction with, and has probably been driven in part by, the rise in the use of price comparison websites (PCWs). Since their establishment in the early to mid-2000s, PCWs have progressively gained an increasing share of motor insurance policy sales. Taken together, direct telephone, internet and PCW sales account for close to two thirds of the UK personal motor insurance market, demonstrating how UK consumers have embraced e-commerce methods for selecting and purchasing insurance.

Technology is breaking up the traditional insurance distribution process, despite modest e-commerce sales. Where once consumers expected to shop for insurance solely through their agent or broker, and to submit claims and elicit advice in much the same way, today they increasingly expect to interact with their insurance provider or advisor on their own schedules, at all times and through multiple channels (eg phone, online self-service, click-to-chat). Today the purchasing journey is fragmented and dispersed across different interaction or touch points between insurance carriers, intermediaries and customers. As an example, Figure 6 traces possible insurance buying journeys for consumers.
The advent of the internet and social media mean prospective customers can build awareness of the range of insurance products that might be suitable for them and their cost, at least for standard types of cover. At the same time, the diffusion of online and mobile phone technology and the associated multiple touch points are providing insurers with a vast and potentially rich source of data about their customers. Allied with new methods and techniques to interpret the complex information – often collectively referred to as Big Data – this offers insurers considerable scope to improve their distribution, risk assessment and pricing. It can also help them improve product offerings and services to better match the evolving needs of their customers.

At the same time, insurers now have more information on customers which they can use to react quickly to changing demand.

This *sigma* reviews the strategic implications of this quiet revolution in insurance distribution.

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This *sigma* looks at how the internet, mobile technology and Big Data are quietly revolutionising distribution in insurance around the world. It explores the drivers and strategic implications of innovation in insurance distribution.
Insurance on the Web

The internet is transforming nearly all stages of insurance distribution.

Preliminary information search

Internet usage across the world continues to expand, having risen more than fivefold since 2000. With information available at all times, individuals and firms are increasingly researching online before purchasing goods and services, including insurance. For example, in the US a 2012 McKinsey report found that 73% of individuals shopping for auto insurance used the internet for information gathering, up from 55% in 2008. Likewise, according to the Life Insurance Marketing and Research Association (LIMRA), 61% of US consumers researched life and annuity products online in 2012, compared with 38% in 2006.

The internet is often the most commonly used source of information in other regions too, for instance for financial products and services in developed Asian markets, and life insurance in Latin America and Europe. However, regional aggregates mask important country-level differences, especially in emerging Asia (see Figure 7).

Figure 7

Consumers’ sources of information about financial services in Asia-Pacific, Europe, and Latin America

Legend:
1 Internet
2 Family, friends and colleagues
3 Insurance agent
4 TV
5 Bank
6 Independent financial adviser
7 Internet enabled mobile phone
8 Social media

Notes: i) The diamonds denote regional averages of survey responses, and vertical bars show the level of dispersion across the countries within the region. ii) In Asia-Pacific, consumers aged 20–40 were asked about channels of information used to gather information on financial products and services. In Europe and Latin America, consumers aged 21–70 were asked about sources used to find information or obtain advice on life and protection insurance.


8 “More Consumers Use the Internet to Research Insurance and Annuity Products.” LIMRA, October (2012).
Insurance on the Web

Variation in internet penetration explains part of the cross-country differences in the level of online search. However, statistically, the degree of association is relatively weak, suggesting that other cultural, technological and institutional factors also influence consumer behaviour. Regulation can play an important role in shaping distribution choices. In France, for instance, all providers of life insurance policies have a compulsory “duty to advise”, perhaps discouraging independent online research.

Aggregator or price comparison websites (PCWs) have in some cases been the catalyst for internet search. These sites enable prospective customers to access comparative quotes from multiple insurers based on a standardised set of criteria. Mathematical algorithms yield search results using real-time access to price information supplied by partnering insurers.

The UK has the most developed aggregator sector, but web aggregators are becoming standard tools in a number of developed markets, especially in the personal lines business. For example, the UK and the US have several publicly listed web aggregators. The Netherlands, Germany, France, Spain, Italy, Australia, Hong Kong, Ireland, South Korea and Canada also have web aggregators, although the extent of market presence varies in each depending on the willingness of insurers to participate.

Some UK aggregators have set up operations in continental Europe, encouraging growth and competition in the region. Consumer surveys also indicate a growing interest in PCWs internationally. In North America, even though current usage is lower than in the UK and Europe, more than half of consumers say they are likely to use comparison websites to help make purchase decisions about insurance in the future. This broadly echoes consumer sentiment in other regions.

Other pre-sales activity

As well as gathering product and price information, consumers are growing more comfortable with the internet as a trusted source of advice. For example, Swiss Re’s 2012 European Insurance Report found that consumers trust the internet more than any other source of advice (Figure 8). In Latin America, while the internet is less trusted than direct contact with the insurer, it is more trusted than family and friends or the advisor/broker/agent channel. This contrasts somewhat with the situation in other regions such as North America and Asia, where some surveys indicate that advice from intermediaries still tends to be highly valued relative to online sources.
Note: Response to survey question “Which one source would you trust the most to give you advice on life and protection insurance?”

The increased availability of information and online tools – from insurers’ own websites, to expert and consumer blogs, to chat rooms – has enabled consumers to better assess the risks they face, and the potential use of insurance to mitigate those risks. In life insurance, online “need calculators” have evolved from simple rules of thumb (e.g., ‘x times annual income’) to enable more personalised risk assessment. Additionally, visualisation of insurance needs through gamification – the application of elements of game playing such as point scoring, competition with others and rules of play– makes it easier for consumers to calculate their own specific insurance needs. As an example, in 2013 South African insurer Liberty introduced its web-based Risk Revealer tool that allows individuals to calculate their level of lifestyle risk through a personalised avatar created from the responses to an online questionnaire.

Moreover, in some countries insurance aggregators are building strong brands that benefit the customers beyond just providing comparison quotes. For example in one 2011 study, consumers in the UK saw price comparison sites as the destination for financial advice, even for complex products and decisions. Comparison sites ranked well ahead of independent financial advisers.

15 Oxford Dictionaries online.
Social media is playing a growing role in pre-sales activities, including the dissemination of advice... …as well as the sharing of risks and negotiation of better and cheaper cover for members of a social network.

New personal peer-to-peer insurance initiatives

Social media networks are moreover being used to create groups through which individuals can underwrite each other’s risks or negotiate better terms for insurance with carriers. While risk groups are not new to insurance, technology makes it easier for persons wanting to self-insure to come together (see Box: “New personal peer-to-peer insurance initiatives”).

Social media are fostering peer-to-peer initiatives for personal insurance.

Some schemes allow individuals to share possible losses up the level of the deductible in a standard insurance policy.

Others appear to be more closely based on mutualising insurance losses across members of a social group.

On the commercial side, risk pools may also receive a boost from technology.

Social media could also impact conventional commercial insurance arrangements. According to some commentators, small business owners and trade/professional associations could use social networks to form groups wanting to pool some of their risks. Demand for such initiatives has been demonstrated in the past. In the US, for example, risk retention and risk purchasing groups proliferated in response to the “liability crisis” in the mid-1980s.


19 Precise features of the jFloat and Peercover business models are not publicly available. This description is based on third-party information from the internet. See for example, http://p2pfoundation.net/JFloat.


21 For more information on risk retention and risk purchasing groups see the “Education Center” section of the Risk Retention Reporter website at www.rrr.com.
Insurers are increasingly using social media for branding, information distribution and consumer education. In the US, for example, around 20% of insurers actively use social media. However, this means that many insurers are currently not well equipped to monitor and respond quickly to consumer commentary – whether positive or negative – through online channels.

Overall, online channels are increasingly used for advice and negotiation in the insurance distribution process. For instance, a recent Accenture survey of insurance executives in Europe and Latin America found that digital pre-sales interaction, which includes advice, is expected to rise considerably in most countries in the next three years.

Completion of purchase/sale online

Despite the increased role of the internet as a source of information and advice, consumers generally remain reluctant to buy insurance online, especially life insurance. In emerging Asia, where e-commerce is growing very rapidly in some countries, fewer than 20% of consumers say they would be willing to buy any insurance online.

According to Swiss Re’s 2011 Asia-Pacific Risk Appetite and Insurance survey, less than 40% of consumers in developed Asia-Pacific would purchase life insurance online, although more than half would be comfortable buying non-life insurance through the internet (see Figure 9). In Europe and Latin America, only half of consumers say they would be comfortable buying life insurance online. In the US and Canada too, a significant shift by consumers to online insurance purchase has yet to materialise, even though many use the internet to obtain insurance quotes.

Figure 9

Channels consumers in Asia-Pacific would use to buy insurance products


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Insurance on the Web

According to a recent Ernst and Young global survey, customers generally have a high preference for personal interaction and expert assistance when buying life insurance and pensions.\(^{27}\) Savings, pension and disability insurance can be complex and difficult to understand, even with the additional information from widely available online tools. As a result, for many of these types of products, “research online, purchase offline” using traditional intermediaries is likely to endure for several years yet. Similarly, arranging protection against large, complex commercial risks continues to favour intermediated sales via brokers.

Some relatively simple products such as motor and domestic property insurance are nonetheless increasingly being sold online. Based on consumer surveys, research by Finaccord\(^ {28}\) found that in France, Germany, Italy, Poland, Spain and the UK, online channels (both insurers’ own sites and through comparison websites) accounted for an average of 42% of motor and household insurance policy purchases in 2012, up from 35% in 2008. The UK reported the largest share of online transactions in 2012 (69%) and France the lowest (25%). But all six countries reported significantly higher sales of motor and household policies via the internet over the past few years.

Likewise, in some mature markets such as in the US and the UK, online distribution of commercial auto insurance and business owner and professional liability cover for small and medium-sized enterprises (SMEs) has become more commonplace. According to a 2012 survey by Datamonitor, the majority of UK SMEs continue to purchase insurance through a broker (50.5%) but businesses are increasingly turning to e-commerce channels (35% compared with less than 30% in 2011).\(^ {29}\) Additionally, a 2013 Deloitte survey found that 51% of US-based small businesses are at least somewhat likely to also buy insurance online directly from an insurer, even though the current options to complete such a purchase are still limited (See Figure 10).

**Figure 10**
Likelihood of small US businesses buying insurance online directly from the insurer, overall and by annual company revenue, in 2013

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<table>
<thead>
<tr>
<th>Annual Revenue (USD)</th>
<th>Very Likely</th>
<th>Somewhat Likely</th>
<th>Not Very Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than USD 100k</td>
<td>16%</td>
<td>28%</td>
<td>61%</td>
</tr>
<tr>
<td>USD 101k to less than USD 250k</td>
<td>19%</td>
<td>30%</td>
<td>51%</td>
</tr>
<tr>
<td>USD 250k to less than USD 500k</td>
<td>13%</td>
<td>49%</td>
<td>38%</td>
</tr>
<tr>
<td>USD 500k to less than USD 1mn</td>
<td>16%</td>
<td>38%</td>
<td>46%</td>
</tr>
<tr>
<td>USD 1mn to less than USD 5mn</td>
<td>11%</td>
<td>34%</td>
<td>55%</td>
</tr>
<tr>
<td>USD 5mn to less than USD 20mn</td>
<td>14%</td>
<td>29%</td>
<td>57%</td>
</tr>
</tbody>
</table>
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Overall, 90% of respondents indicate a likelihood of purchasing insurance online. The lowest likelihood is for the least profitable businesses, USD 101k to less than USD 250k (13%), and the highest for the most profitable, USD 5mn to less than USD 20mn (14%).


\(^{27}\) “Global Consumer Insurance Survey 2012.” Ernst & Young (2012).

\(^{28}\) “Aggregation Metrics: Consumer Approaches to Insurance Comparison Sites in Europe.” Finaccord, February (2013).

In reinsurance, new distribution technology is also being introduced to provide straight-through processing capabilities for simple classes of risk. Data captured electronically through the application process can be used through the entire life of the policy, from underwriting to issue, administration and ultimately claims. For example, SwiftRe offers a “one-stop shop” for single risk solutions for small industrial and commercial accounts covering property and liability exposure.30

Sales of relatively straightforward life insurance products are also migrating to the internet. A shift towards direct marketing of relatively simple products is also evident in life insurance, although many insurers still struggle to engage customers when it comes to online distribution. Innovative insurers are looking to boost online sales through interactive, simple and transparent websites and by setting up uncomplicated purchasing processes. In New Zealand, for example, Pinnacle Life has developed an engaging and interactive underwriting process, where a consumer only has to answer three questions to obtain a quote for basic term life insurance. Similarly, LifeNet in Japan has encouraged internet sales by engaging consumers in product design, asking them to submit their input online, and leveraging social media to generate emotional attachment to the brand.

Additionally, online reverse auction platforms are starting up. The internet is also enabling reverse auctions whereby insurers or their distribution partners submit online bids to provide cover from which potential customers choose a preferred supplier. For example, the US firm iXchange has developed a web based reverse auction platform for purchasing commercial property and casualty insurance. These trends towards buying insurance on the internet seem set to continue. The experience of UK personal motor insurance markets, where e-commerce sales now dominate, shows how quickly consumer buying patterns can change. A 2014 survey indicated that by 2018, insurers anticipate nearly one fifth of their business will come from online sales through personal computers. The migration towards full online purchase will nevertheless continue to be affected by local institutional features. In some emerging market countries for example, the prevalence of point-of-sale finance, with lenders stipulating that insurance is taken as part of the purchase of a car or the arrangement of a mortgage, may limit the pace of online insurance penetration. Likewise in some countries such as India, the activities of insurance aggregators are strictly regulated.

Internet purchasing seems set to grow further, although in some markets, institutional factors limit online penetration. Younger generations are more likely to purchase insurance on the Web ...

Generational effects
Younger consumers are typically more comfortable with online insurance purchases than older customers. A survey found that in the US, consumers aged 44 and younger are more than twice as likely to purchase life insurance via the internet than those aged 65 and older.32 Similarly, in Europe and Latin America, younger people are more comfortable than their elders with buying life insurance through the website of an insurance company or direct from the provider without any face-to-face dealings with agents (see Figure 11).33 If this behaviour is a permanent characteristic of the age cohort, it would reinforce the shift to online purchases in the future.

30 “Developed by Swiss Re, SwiftRe is a fully integrated web-based solution that allows primary insurance companies and brokers to submit applications, retrieve quotes and purchase reinsurance. For more information see http://media.swissre.com/documents/A_10181_A6-5_Swift_Re_RZ.pdf
Insurance on the Web

Figure 11
European and Latin America consumers, by age group, who would be very or fairly comfortable taking out life or protection insurance through channels without face-to-face interaction

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A website that compares prices of several companies</td>
<td>60%</td>
<td>50%</td>
<td>40%</td>
<td>30%</td>
<td>20%</td>
<td>10%</td>
<td>0%</td>
<td>60%</td>
<td>50%</td>
<td>40%</td>
</tr>
<tr>
<td>The website of a specific insurance company</td>
<td>50%</td>
<td>45%</td>
<td>35%</td>
<td>25%</td>
<td>15%</td>
<td>5%</td>
<td>0%</td>
<td>50%</td>
<td>45%</td>
<td>35%</td>
</tr>
<tr>
<td>Direct from the provider without any face-to-face dealings with an adviser or company staff</td>
<td>40%</td>
<td>35%</td>
<td>25%</td>
<td>15%</td>
<td>5%</td>
<td>0%</td>
<td>0%</td>
<td>40%</td>
<td>35%</td>
<td>25%</td>
</tr>
<tr>
<td>Social media, e.g. Facebook or google+</td>
<td>30%</td>
<td>25%</td>
<td>15%</td>
<td>5%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>30%</td>
<td>25%</td>
<td>15%</td>
</tr>
</tbody>
</table>


... although consumers of all ages are becoming more comfortable online.

While online purchase capability is increasing, it is still not available for many insurance products.

The data in Figure 11 indicate that older age groups in Europe are more comfortable using price comparison websites to buy insurance than the younger groups. This supports findings that all age groups are becoming more comfortable online.34

Online purchasing capability
Regardless of consumer comfort levels with buying insurance on the web, for many products the option to purchase online is still not available. By and large, complete online sales functionality is currently only available for auto and some household insurance (see Figure 12). For other insurance, online purchase completion is more limited. But product information is typically widely available and, to a lesser extent, so too is the capability for consumers to obtain customised quotes, especially for personal non-life products.

More than half of the companies and product lines surveyed have the particular feature on their website.

Less than half but more than 10% of companies/product lines have the particular feature on their website.

Fewer than 10% of the companies/product lines have the specific functionality on their website.

Note: Companies surveyed in each country/region include the top 10 firms (top 5 in South Asia and China) by direct premiums written, so the sample is not necessarily representative of all insurers in any region. In particular, it fails to capture the new tech-enabled players who remain small.

Source: Swiss Re Economic Research & Consulting, based on information published on insurers’ websites in December 2013.

Compared with other countries, insurers in developing Asia appear to have relatively more advanced web offerings in terms of allowing customers to purchase and amend policies via the internet. This could reflect the influx of new entrants in the region, which are taking advantage of newer, more flexible technology. Asian insurers may also be anticipating stronger customer demand for digital interaction — a recent CapGemini survey indicates that the growing preference for digital channels is particularly strong among younger people in developing Asia.\(^35\)

Purchases through social media sites are still nascent, though for many insurers, developing this distribution channel is a priority. Malayan in the Philippines already allows consumers to buy several of their insurance products, from travel to fire insurance, on Facebook. User information can be completed automatically from the person’s Facebook profile, and detailed coverage information made available through linked policy documentation. In addition, in a 2013 survey of insurance executives in Europe and Latin America, 35% said their companies are developing social media distribution capability, and 59% plan to develop it in the next three years.\(^36\)

Meanwhile, traditional intermediaries are digitising their business models.

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**Figure 12**
Available online distribution functions on insurer websites in various countries and regions

<table>
<thead>
<tr>
<th></th>
<th>Product descriptions</th>
<th>Generic price information</th>
<th>Customised quote</th>
<th>Purchase completion capability</th>
<th>Live chat option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life</td>
<td>UK</td>
<td>South Africa</td>
<td>Latin America</td>
<td>US</td>
<td>South Asia</td>
</tr>
<tr>
<td>Motor</td>
<td>UK</td>
<td>South Africa</td>
<td>Latin America</td>
<td>US</td>
<td>South Asia</td>
</tr>
<tr>
<td>Non-life (excluding motor)</td>
<td>UK</td>
<td>South Africa</td>
<td>Latin America</td>
<td>US</td>
<td>South Asia</td>
</tr>
</tbody>
</table>

Online features are relatively more advanced in developing Asia, perhaps reflecting the impact of new insurers in the region.

Developing social media distribution is a strategic priority for insurers.

Traditional intermediaries are also using web technology for some activities in order to engage better with their customers. Additionally, they are using the internet to improve operational processes and connect to other distribution channels.

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Post-sales activity online

Increasingly, customers can use the internet to access printable insurance identification cards and policy forms as well as initiate claims procedures. In some cases, they can also modify coverage terms, update information about an insured property, change payment information and, for unit-linked policies in the life sector, modify asset allocation.

The development of online insurance distribution will not proceed in a linear fashion. For example, in the UK a critical catalyst for industry change was the rise of the aggregators. In Australia, PCWs failed to take off significantly because major carriers refused to participate with aggregator firms. Online search for information is nevertheless now generally standard consumer practice across the globe and other pre-sales activities, such as advice and negotiation, are also migrating to the internet.

The low penetration thus far of online purchase/sales completions provides an opportunity for incumbent insurers. It also could be a threat, if new entrants gain first-mover advantage. Globally, digital channels will increasingly be used throughout the distribution process. Innovation will also extend to the mobile world, the subject of the next chapter.
Mobile technology allows customer interaction anytime, anywhere. Mobile technology includes basic cellular telephones, smart phones and tablets, as well as tracking and remote-operation devices. While the internet provides direct contact between customers and insurers, mobile technology allows insurers and their customers to interact almost anytime, anywhere. Mobile devices let customers immediately retrieve and send information (passively or actively) from different locations – whether on the daily commute or at the scene of an accident – without waiting to reach a stationary device or agent. Like the internet, mobile has the potential to reduce costs and increase customer contact at every stage of the insurance distribution process. In addition, mobile devices provide great convenience and facilitate data collection and behaviour tracking, thus expanding access to the previously uninsured.

Mobile-based telematics

Telematics – the integration of telecommunication and information processing – is fundamentally changing insurance distribution by mobilising the data collection process. So far, most applications have been in auto insurance. Mobile devices installed inside cars can record real-time data points about driver behaviour, such as location, miles driven, time of day, rapid acceleration, and hard breaking or cornering.

Usage-based insurance (UBI) is an innovation that uses telematics to more closely align driving behaviours with premium rates. Since Progressive Insurance Company pioneered the first UBI programs in the 1990s to offer mileage-linked discounts by tracking miles driven, more than 1.4 million drivers in the US have tried the programme, of whom about two-thirds have eventually earned a premium discount averaging 10–15%. Many other insurers, including State Farm and Allstate in the US and Allianz in Europe, have also introduced telematics auto insurance. According to the British Insurance Brokers Association, the number of active telematics-based auto policies in the UK has increased sharply since 2009 (Figure 13). The number of monitored drivers worldwide is projected to rise to 89 million by 2017, up from 1.85 million in 2010.

Figure 13
Take-up of telematics in UK motor insurance

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of policies (LHS)</th>
<th>Number of main providers (RHS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2010</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2011</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>2012</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>2013</td>
<td>14</td>
<td>12</td>
</tr>
</tbody>
</table>

Source: British Insurance Brokers Association (http://www.biba.org.uk/UploadedFiles/1156telematicsresearch.pdf)

37 IBM Mobile Business Insights, 12 August 2013: http://asmarterplanet.com/mobile-enterprise/blog/2013/08/what-are-insurance-companies-delivering-using-mobile.html
38 “Data monitoring saves some people money on car insurance.” Forbes, 2 September 2013
39 ABI Research, 10 February 2012: https://www.abiresearch.com/press/89-million-insurance-telematics-subscribers-global
Mobile devices

New products have been developed using the data collected via mobile devices, including pay-as-you-go/pay-how-you-drive insurance products such as Progressive’s Pay-As-You-Drive (PAYD). By helping customers track their own actions and providing incentives for safe driving, telematics can enable feedback loops that change customer behaviour. Within auto insurance, mobile apps can also enable crash-monitoring technology to help investigate claims.

Mobile data collection is likely to expand into other lines of business beyond auto. In life and health, the use of mobile apps or wearable devices to track information related to individuals’ exercise, diet or health behaviours is influencing design, pricing and claims management. For example, Discovery’s Vitality program allows users to record activities with web-enabled mobile devices, receiving premium discounts in exchange for providing information to underwriters. Similarly, sensors in homes or buildings to detect changing risk conditions have applications in property insurance.

Customers using “smart” devices are able to access the same features available online, albeit often with limited functions, such as a restricted keyboard, a smaller screen and less consistent processing speed. A crucial advantage of smart devices is that they allow users to deal with urgent issues that cannot wait until they reach a stationary computer. These customers benefit from mobile-specific design features, such as the pre-filling of data fields, an interface conveniently viewed on a small screen, and immediate assistance focused on the issues most relevant while “on the go.”

The total number of smartphones and tablets has already surpassed that of personal computers. There are country differences in mobile use due to a combination of income, cultural and regulatory differences, but smart and basic mobile users are not strictly divided along geographic boundaries. While smart phone access is currently much greater in the developed world, it is spreading within emerging markets. For example, 3G penetration in sub-Saharan Africa is forecast to grow by 46% through 2016 as the use of mobile-specific services develops.

Smart mobile devices can increase traffic to online portals. As of December 2012, 13% of global internet traffic originated from mobile devices. As with the internet more generally, mobile is still predominantly used for research and to gather information rather than purchase insurance (Figure 14). But insurance executives expect that as the personal computer internet share of non-life distribution increases, so too will the share from smart mobile devices.

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40 Discovery Vitality: http://www.hr.uct.ac.za/usr/hr/remuneration/healthcare/vitality_2014.pdf
42 GSMA/Deloitte Sub-Saharan Africa Mobile Observatory (2012).
Note: Share of positive responses to the question: “Have you used your mobile device in the past two years to deal online with an insurer?”


Beyond internet access

Smart mobile can enhance the ability of customers to submit data directly, such as when filing claims. Innovative mobile phone applications can show users the exact angle and features of damages to photograph the scene of a car accident, for example, which allows customers to act as their own on-site/remote assessors. This reduces the cost and increases the speed of claims processing. For instance, State Farm’s “Pocket Agent” and American Family Insurance’s “My AmFam” in the US and Aviva’s app for iPhone in the UK allow car insurance customers to start the claims processes on their phones. Such functionality builds customer satisfaction, increases customer comfort with remote interactions, and accumulates data that can help facilitate faster underwriting, pricing and claims processing. In some cases, smart phones may also collect telematics data, reducing the need for separate devices.

The use of mobile applications for social interactions provides insurers with new ways to reach their customers. In 2013, the Netherlands-based insurer Aegon launched Kroodle, a paperless insurance company targeting young mobile users by selling products that can only be purchased via Facebook. It bypasses much of the standard application process by automatically using personal data already listed on the user’s Facebook profile, speeding up the purchase process.45

Tailored design features

The user requirements of smart mobile differ considerably from those of stationary computers: mobile users need faster and simpler functionality. Successful insurance distribution via smart phones therefore requires tailored portal design. Technology-focused companies in the insurance sector such as the Dutch online insurer Inshared and the German intermediary Friendsurance have dedicated teams designing separate mobile insurance applications rather than simply converting existing online portal functionality. Insurers have achieved rapid success in integrating online and mobile channels by keeping interfaces simple. For example, US homeowners’ insurer Homesite has increased mobile convenience by providing pre-filled data fields, reducing the number of data inputs required by users.

45 Microsoft case studies, 6 August 2013: http://www.microsoft.com/casestudies/Case_Study_Detail.aspx?casestudyid=710000003127
Mobile applications face a trade-off between full functionality and simplicity of use.

Mobile-specific design features, such as gamification, can increase interactivity and ease of use to better engage consumers. However, customer service leaders such as USAA in the US emphasise simplicity and customer centricity in design, recognising that mobile customers usually require quick-and-easy access but not full functionality. For instance, most consumers are unlikely to review a lengthy insurance contract on a smart phone but may need to urgently update one aspect of a policy or submit damage photos to request a claim. While two thirds of consumers are reportedly interested in being offered mobile-enabled insurance services, less than a third are impressed by the mobile services currently provided by their insurers on either smart phone or tablet.46

As with the internet, mobile distribution is perhaps not suited to all lines of business. In developed markets, it is likely to be more successful with simple non-life personal lines (auto, property, pet, travel insurance) than for more complex life and pension products, which invariably require personal advice. In a recent study, Gartner predicted that by 2015, insurers will abandon 40% of their current customer-facing mobile applications because of inadequate returns on investment.47 Mobile distribution of life insurance is most likely to focus on enhanced customer service such as providing additional ways for customers to view policies and update personal details.

Basic mobile distribution

Customers using “basic” mobile do not have access to the internet on their device. In emerging markets, consumers often do not have access to a fixed telephone line or internet connection so they therefore use basic mobile as their primary mode of remote communication. Insurance providers are developing innovative ways to interact with consumers by text with simplified products and payment processes.

Expanding insurance market size

Insurance distribution has historically been costly in developing economies due to infrastructure weaknesses, geographic inaccessibility and financial illiteracy. With relatively low revenue per customer from insurance sales, achieving profits requires high customer volumes. Top-line revenue per policy may be only a few cents each day. Insurers in developing countries often have to deal with poor quality or missing data, high transportation costs for face-to-face meetings, and low levels of customer financial education. The lack of data, including simple items such as an individual’s age or family history, raises costs for designing and pricing new products.

Although insurers have traditionally not served the low-income market, many have recently recognised an attractive niche in serving previously uninsured customers. With an emerging middle class and a rapid increase in mobile penetration innovative mobile-phone based insurance products now reach millions of previously uninsured people. Pioneering insurance providers have adapted the underwriting, sales and claims processes to fit this technology.

Interaction through the basic mobile network lowers distribution costs by reducing face-to-face contact, allowing insurers to collect small but frequent premium payments, exchange contracts by text, and sometimes even underwrite based on parametric indices that avoid the need for individual claims assessment. Through either mobile money wallets or in-kind airtime payments, or simply verifying national ID cards with SIM card registration databases (see Box: “The importance of mobile identification and payment systems for insurance”), mobile platforms can facilitate remote person-to-person, government-to-person and business-to-business transactions. As distribution partners, mobile operators provide contact with a widespread network of existing customers, an established payments system and a trusted brand, helping insurers offer more suitable and affordable products to a larger part of the world’s population.

The importance of mobile identification and payment systems for insurance

Payment systems are essential for insurance distribution. Mobile money – the use of mobile phones to make and receive payments – permits many previously unbanked people to participate in the formal financial system. In Africa, Latin America and Asia, close to 2 billion people do not have a bank account but do have a mobile phone. Sub-Saharan Africa has emerged as the leading region for mobile financial transactions, with over 100 initiatives underway in 2014 (see Figure 15). Already, 80% of the world’s mobile money transactions occur in East Africa, mainly in Kenya, where half of the nation’s GDP moves through mobile money. Kenya’s mobile money platform mPesa handles USD 20 million in transactions each day.

Mobile access, coupled with biometric identification programs, facilitates the establishment of insurance markets in developing countries. Biometric ID programs have been piloted to create personal identifiers for previously undocumented individuals. These use a range of mobile devices (from smart cards to cell phone SIM cards) to vastly reduce the costs of personal identity verification. This allows data to be matched to individuals, helping create formal payment systems and credit registries, which are also useful for insurers. Early versions of such ID programs have been used for distributing post-disaster government relief payments, reducing fraud and enabling better targeted catastrophe insurance. For livestock insurance in India, IFFCO-Tokio has pioneered the use of radio frequency identification devices to reduce the fraudulent claims that previously occurred when livestock were identified only by tags.

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Figure 15
Number of mobile money partnerships/platforms by region

<table>
<thead>
<tr>
<th>Region</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Saharan Africa</td>
<td>220</td>
<td>219</td>
<td>179</td>
<td>116</td>
<td>64</td>
<td>38</td>
<td>16</td>
<td>11</td>
<td>6</td>
<td>5</td>
<td>7</td>
<td>11</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>280</td>
<td>200</td>
<td>150</td>
<td>100</td>
<td>50</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle East and North Africa</td>
<td>200</td>
<td>150</td>
<td>100</td>
<td>50</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Asia and Pacific</td>
<td>179</td>
<td>179</td>
<td>116</td>
<td>64</td>
<td>38</td>
<td>16</td>
<td>11</td>
<td>6</td>
<td>5</td>
<td>7</td>
<td>11</td>
<td>16</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>South Asia</td>
<td>220</td>
<td>220</td>
<td>179</td>
<td>116</td>
<td>64</td>
<td>38</td>
<td>16</td>
<td>11</td>
<td>6</td>
<td>5</td>
<td>7</td>
<td>11</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Europe and Central Asia</td>
<td>200</td>
<td>200</td>
<td>150</td>
<td>100</td>
<td>50</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

* Data up to end-March 2014

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Basic mobile technology can enable every stage of the distribution process.

Adapting the distribution process to basic mobile capacity

Basic mobile technology can enable every stage of the distribution process. Through a simple handset, insurance products such as “mi-Life,” available on the South African telecom company MTN’s MobileMoney platform in partnership with intermediary MicroEnsure, allow the user to submit queries and receive the insurance contract, pay premiums and initiate claims, all through text notification. Although smartphone penetration is increasing steadily in emerging markets, text message functionality will remain important in reaching a broader base of customers.51

Partnership with mobile operators has allowed insurance providers to demonstrate the benefits of insurance to the previously uninsured, creating upselling and cross-selling opportunities. “Embedded” insurance offers a free benefit on an opt-in basis. Subscribers are awarded free life insurance cover in proportion to the amount of airtime used, which satisfies the mobile operators’ need for customer loyalty in a highly competitive mobile operator industry. Once customers develop familiarity with the products and recognize the value of embedded insurance, customers may voluntarily upgrade to a premium paid service for enhanced cover (“freemium”). Mobile distribution partnerships were first piloted in Africa and have since expanded into other emerging markets (see Box: “Innovators in mobile microinsurance”).

Innovative approaches such as “embedded” and “freemium” have improved customer acquisition and upselling.

Innovators in mobile microinsurance

Several initiatives in Africa have pioneered insurance distribution through basic mobile devices. The “embedded” model, through partnerships between mobile company Tigo and insurance intermediaries MicroEnsure and Bima, has brought life insurance to more than 1 million individuals in Ghana and Tanzania, 80% of whom had never previously had coverage. The programme has created brand loyalty for Tigo and reduced customer churn. The “embedded” model allows easy (free) adoption for customers, while the requirement to actively opt-in ensures they learn about the product. For “freemium,” Tigo offers to double the insurance coverage for a monthly fee of approximately USD 0.52. Within the first three months of operation in 2012, Tigo saw tens of thousands of customers upgrade from free insurance to paid premium products.

In Kenya, “Kilimo Salama” is a microinsurance product that uses the mobile money platform mPesa to provide payouts to smallholder farmers whose crops fail. After five years of operation, the program covered 185,000 farmers in 2013. Of those, 10% received payouts of up to 50% of their insured seeds and fertilizers,52 a vital means of support for low-income households dependent on agriculture.

Microinsurance includes coverage for crop failure, personal accidents and health...

...and casualty and full life cover, such as in Latin America.

Mobile microinsurance has spread to Asia and Latin America, where microinsurers are currently providing mobile services ranging from basic casualty to full life cover. For instance, Colombian prepaid airtime retailer Fullcarga, in partnership with local insurer Colpatria, offers insurance plans and services through their online portal, as well as through both smart and basic mobile devices. Prices range from annual premium of COP 8,000 (USD 4) for basic life and disability coverage to COP 17,500 (USD 10) for extensive coverage. The monthly premium — approximately USD 0.42 for the most basic life and accident plan — is below the microinsurance industry average of USD 1.22.53

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52 Swiss Re and Kilimo Salama: http://www.swissre.com/corporate_solutions/industries/agriculture/Microinsurance_pays_USD_160000_after_drought_and_storms_strike_Kenyan_farmers.html
Regulation affects the industry structure for mobile distribution of financial services, as well as the methods through which payments can be made. In most markets, mobile companies and intermediaries are not licensed to sell insurance, so they must partner with licensed local insurers. Regulation that prohibits mobile financial transfers, deducting payments directly from airtime, or signing up for insurance contracts by text acts as a barrier to mobile insurance distribution. For example, organisations in Chile and Peru reported that regulations prohibiting insurance sales via mobile phones limit distribution capabilities for low-income customers, especially in rural areas. Ongoing regulatory development will be necessary to keep pace with new technologies and facilitate insurance services for new and underinsured markets.

54 One exception is Vodacom in South Africa, which has held an insurance license since 2012 but still partners with Liberty as the main insurer. See http://www.africainsurancereview.com/vodacom-granted-south-african-insurance-licences/

Potential role of Big Data in distribution

Increased digital interaction with consumers has facilitated the capture, storage and management of large quantities of data about customers. Using analytical techniques to extract business intelligence from this information is often collectively labelled Big Data, although the term is not always used consistently (see Box: "What is Big Data?").

Many commentators see Big Data as a transformational force. For insurers, it offers the opportunity to assess their customers’ needs, target products and services to individuals and businesses, and support underwriting decisions. At the same time, it entails risks relating to the permissible and appropriate use and management of customers’ data as well as the challenge of designing business processes and products that will provide a profitable return on investment.

**What is Big Data?**

The term Big Data has become widely adopted but without a commonly agreed definition. Across the most popular definitions, three features stand out: size, complexity and technology.56

- **Size**: The volume of the data is important, with companies increasingly capturing and storing vast amounts of information about their customers. But Big Data is not necessarily defined by volume, it is also the velocity at which that data are captured and updated and the variety of information collected. The data come from both external and internal sources, including publicly searchable information on the internet, proprietary data sold by external vendors and private information provided by customers.

- **Complexity**: Some data sets are ‘structured’ in the sense that they are organised and searchable according to content, while others are ‘unstructured’ (see Figure 16). Texts, email, voicemails or online chat forums for example typically contain unstructured data that is not always easily interpreted within traditional computer databases even in digitised form. Extracting meaningful insights by combining structured and unstructured data can be technically very challenging, even with the recent advances in technology such as intelligent text recognition. And, as some data are more reliable than others, uncertainty needs to be factored into any resulting decision making.

Technologies: Alongside the nature of the data collected, new analytical tools and techniques used to process the information help define Big Data. These typically rely on analytics that facilitate almost real-time assessment of customer behaviour.\textsuperscript{57} While the analytical methods are not always novel, the exponential increase in the power (or fall in the cost) of computing has expanded their application.

In sum, the importance of Big Data lies not just with the collection and storage of large and disparate pieces of information, but also in the ability to analyse and extract tangible and useful knowledge from that data. Among other things, it has been used to improve pricing on retail items, identify and potentially reduce churning on credit cards, and reduce the cost of fraudulent insurance claims.\textsuperscript{58} Also, some researchers believe that by combining more and different types of information, worries about the ‘messiness’ of particular pieces of data (including the likelihood of errors, inconsistency of formats, inaccuracy of data processing, etc) are reduced.\textsuperscript{59}

Increased consumer centricity

Re/insurers have always been intense users of data in analysing and measuring the risks they underwrite, setting the associated terms and conditions for insurance policies, assessing risk, and claims management. Some re/insurers have gone as far as to introduce fully automated underwriting systems which provide final decisions on life insurance applications without intervention by a live underwriter.\textsuperscript{60} Big Data can additionally help businesses improve other core functions, including marketing, distribution, operations and claims.

Big Data facilitates a much deeper understanding of customer wants, needs and behaviours. Insurers have more opportunities to observe customer interactions at different points in the distribution process rather than rely on knowledge and insights from agents, brokers and company employees. This means they can gain a more holistic view of consumer preferences and behaviours and use this information to become more consumer-centric in their distribution activities.\textsuperscript{61}

According to a recent international study by Gartner, nearly 64\% of surveyed organisations had invested in or were planning to invest in Big Data technology in 2013, compared with 52\% in 2012. The primary focus of such initiatives is to improve the customer experience and to boost revenues, but the initiatives are mostly at an early stage of development, with less than 8\% of respondents indicating that their organisation had actually deployed Big Data solutions.\textsuperscript{62} The re/insurance industry lags some other sectors, with Big Data spending as a proportion of revenues reportedly less than half that in other industries such as retail and telecommunications.\textsuperscript{63} However, according to the Gartner survey, 40\% of insurers want to increase their investment in Big Data over the next two years.\textsuperscript{64}

\textsuperscript{57} Technologies such as Hive, Aster Data and Hadoop are commonly referenced as tools and resources to help manage and analyse what can exceed petabytes of data stored across multiple databases, as well as customer relationship management and other systems.
\textsuperscript{60} Swiss Re, for example, operates its automated underwriting system Magnum. For a more general discussion, see Swiss Re. “Predictive modelling in insurance in Canada.” August (2013).
\textsuperscript{61} According to an informal poll of insurance executives conducted by PWC/Infoline in December 2013, the areas where Big Data will have the biggest impact were cited as customer insight (55\%), and underwriting effectiveness (24\%). 15\% said pricing optimisation will be affected the most.
\textsuperscript{62} Most companies are adopting a gradualist approach to Big Data. In the 2013 Gartner survey, of the 64\% reporting actual or planned Big Data investment, 20\% are piloting and experimenting, 18\% are still developing a strategy, and 19\% are gathering knowledge. See http://www.gartner.com/newsroom/id/2593815
\textsuperscript{63} According to an informal poll of insurance executives conducted by PWC/Infoline in December 2013, the areas where Big Data will have the biggest impact were cited as customer insight (55\%), and underwriting effectiveness (24\%). 15\% said pricing optimisation will be affected the most.
\textsuperscript{64} However, according to the Gartner survey, 40\% of insurers want to increase their investment in Big Data over the next two years.
Potential role of Big Data in distribution

**Micro market segmentation**

Traditional marketing of insurance has relied heavily on textbook approaches to customer segmentation: aggregating prospective buyers into groups (segments) likely to have common needs and respond similarly to marketing. Typical customer attributes include geography, demographics, psychographics (eg values, attitudes, lifestyles) and behavioural aspects (eg usage patterns, price sensitivity). The advantage of such schemes is that they produce a small number of easily understandable segments. The disadvantage is that the groups are relatively broad which can hinder effective targeting of consumers.

In the age of Big Data, many new data types are available. These can be combined and analysed to define a more granular classification of existing and prospective customers. These new data types include:

- Activity-based data, such as website tracking information, vehicle telematics about customer driving behaviour, purchase histories, call centre and mobile data.
- Social network profiles (eg work history, group membership).
- Social influence and sentiment data, such as product and company associations (‘likes’ and ‘follows’), online comments and reviews, and customer service records.

Such micro-segmentation enables ever finer targeting of content, offers, products and services. It can in turn help maximise returns by concentrating marketing expenditure on the most valuable and profitable customers. This applies not simply to individual transactions but to an entire future relationship with a customer: the whole lifetime customer value. Non-financial firms such as Google, Amazon and Netflix lead the way in using Big Data to enhance their marketing efforts through, for example, their recommendation algorithms. Amazon uses data analytics to identify users’ purchasing patterns and suggest products based on peoples’ previous preferences. Likewise, Netflix employs its Cinematch recommendation algorithms to suggest films for its customers to view and even to influence the design and production of new films.

Similar applications are also being developed in insurance. For example:

- **Identifying missing insurance markets.** Using the power of Big Data, some start-up intermediaries (eg Bought-by-Many in the UK) have begun to analyse internet search histories and profiles to identify which sections of the community are seeking but failing to find insurance cover. This information can be used to group prospective customers and propose suitable insurance providers. Customers gain from negotiated group discounts with insurers, while insurers benefit from lower policyholder acquisition costs.

- **Leveraging existing retail customer bases for insurance.** Retailers use data from loyalty card programs combined with information from affiliated insurance units to target consumers. For example, the Australian retailer Woolworths, (which in 2013 acquired a stake in the data analytics firm Quantium) has reportedly sought to overlay its customer loyalty card information with its auto insurance company’s accident database.65

- **Exploiting in-car telematics for improved auto underwriting and customer engagement.** Insurers are increasingly looking to extract value from telematics both in terms of assessing underwriting risks and the potential opportunities to cross-sell and up-sell. For example, US insurer Progressive’s Snapshot product combines analytics with mobile computing and cellular communications to offer personalised auto insurance policies based on driving habits. In motor insurance, additional services such as vehicle theft tracking, automated emergency calls, vehicle diagnostic reports, breakdown notification service, fuel-efficiency tips, real-time driver feedback and safe driving tips can be provided.

Predictive analytics has many useful applications.

**Figure 17**
Use of predictive modelling in marketing insurance, by category

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage of Survey Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target marketing</td>
<td>70%</td>
</tr>
<tr>
<td>Customer retention</td>
<td>60%</td>
</tr>
<tr>
<td>Cross-sell</td>
<td>50%</td>
</tr>
<tr>
<td>Agent performance</td>
<td>40%</td>
</tr>
<tr>
<td>Lead generation</td>
<td>30%</td>
</tr>
<tr>
<td>Up-sell</td>
<td>20%</td>
</tr>
<tr>
<td>Other</td>
<td>10%</td>
</tr>
</tbody>
</table>

Note: Based on a survey of 269 insurance executives representing insurers that sell personal and commercial insurance in US and Canada.

It can help insurers cross-/up-sell additional product and policy features and reduce marketing costs.

However, insurers will need to be careful to not alienate customers by taking product personalisation too far.

Analytics-driven proactive marketing approaches are not limited to particular distribution channels.

### Using predictive modelling to target customers

Predictive analytics – the use of advanced statistical techniques and data analysis to evaluate the impact of multiple explanatory factors on a particular variable – can be used to target customers, personalise insurance products and services, and anticipate customer needs and their likely actions. This can have a better sell rate than broad-based campaigns such as advertising. According to a recent survey, more than two thirds of US and Canadian non-life insurers use predictive modelling to target their marketing efforts (Figure 17).

Insurers do not have a strong track record in selling multiple products to the same customers. For instance, in advanced markets in Europe and North America, on average less than 20% of consumers have bought additional policies from their existing insurer. However, predictive analytics can boost cross- and up-sales of supplementary products and policy features. By monitoring and analysing each interaction with a prospective customer, insurers can gain insights into customers’ appetite for extra cover. In a recent survey of 160 organisations, those which applied predictive analytics in sales and marketing realised a 75% higher click-through rate and 73% higher sales than those that did not.

However, there is a fine line between Big Data marketing applications that provide relevant product and service recommendations and those that appear intrusive. Targeted marketing may be perceived as invading individuals’ privacy, especially when purchase recommendations are generated and sent without a consumer’s conscious opt-in. Insurers must understand the limits to data-driven personalisation, or else they might alienate potential customers and in a worst case face legal risks.

These analytical techniques can be used through multiple distribution media. Insurance companies need to be able to offer a personalised, tailored experience that is consistent across multiple channels – in person, online, mobile etc. – at a time that is right for customers.

66 Based on regional results from “Global Consumer Insurance Survey 2012.” Ernst & Young (2012).
68 According to a 2013 survey by Guardian Media Network/GfK, 69% of UK consumers said they find it creepy the way brands use the information they hold on them. See http://www.theguardian.com/media-network/media-network-blog/2013/oct/04/consumer-marketing-big-data-perceptions
Potential role of Big Data in distribution

Real-time predictive analytics offer insurers the chance to respond rapidly to changing customer behaviour.

Towards real-time underwriting

Predictive analytics can be used in real time with data from web search histories, social media networks and other digital tracking information. Companies can gain instant feedback on marketing campaigns, making adjustments mid-campaign based on initial results and rapidly responding to intelligence on customers’ behaviour. Some insurers such as Tokio Marine have combined geo-location, text messaging, and data prefill services to deliver real-time insurance offers to subscribers. For example, as a customer drives to the airport, their mobile phone receives a text with an offer for travel insurance. Similarly, texts can be sent as golfers arrive for their tee times or skiers approach lifts.69

Big Data can facilitate a shift towards fully dynamic insurance pricing. With the real-time data captured through telematics devices and powerful analytics, insurers may be able to adjust premium rates almost instantaneously to reflect the underlying risks and reward policyholders for improved risk behaviour.

Some commentators believe that in an environment of rich third-party data, insurers could assess underwriting risks before or while engaging prospective customers.70 Risk selection and underwriting could become integral to insurers’ marketing efforts, with insurers seeking out potential customers and pricing risk at the initial point of contact.

Big Data can enable insurers to move further towards fully dynamic pricing.

Some commentators suggest risk selection could become integral to insurance marketing.

Improved efficiency of distribution services

Big Data can also be used to improve intermediaries’ business practices. For example, some commercial insurance brokers have launched online portals and mobile applications to capture placement data and risk management-related information. By combining such information with data analytics, brokers aim to better match insurance buyers with available insurers.71

Insurance companies can similarly use Big Data to build successful sales forces by helping find and recruit staff, to support business planning, including monitoring and evaluating agent sales performance, and to identify the features of a new product or incentive that can generate increased sales. Also, social media can be leveraged to foster mentoring and staff development, allowing sales agents to collaborate and transfer knowledge, especially from experienced to junior agents.72

Intermediaries can also use predictive analytics to improve their business practices.

Insurance companies can similarly use Big Data to improve the performance of their sales force, their planning process and their product features and incentives.

More generally, analytics may help to understand customer attrition rates and ultimately attract repeat sales.

Customer retention and brand loyalty

In addition to attracting new business, Big Data can be used to improve customer retention, while being mindful of consumers’ sensitivities over unsolicited marketing. With predictive analytics, insurers can try to identify who is most likely to defect, when that might happen and why. They can use that knowledge to take a proactive approach to boost customer satisfaction and encourage loyalty among those clients who are at risk of switching to another provider.

Likewise, analytics may help to track consumer sentiment about insurers.

Finally, predictive analytics could also be used to monitor brand awareness. For example, analyses of blogs, tweets and social media conversations can help to build a picture of consumer sentiment towards an insurer. This information can be used to improve customer service, boosting the insurers’ overall reputation.

71 Aon’s GRIP helps brokers evaluate which insurers to approach during the placement process. The platform provides real-time information on prices, coverage and limits that insurers in all major insurance markets use to quote and bind business. Similarly, Willis has a placement platform that combines algorithms using historical data with real-time information to match a buyer and insurer.
The prospective returns from Big Data investments are significant although they are highly uncertain.

**Figure 18**

Expected returns on Big Data investment by industry*

* Numbers in brackets represent Big Data spending in 2012 as percent of mean industry revenue.

- Average expected return on investment (RoI) in 2012

Source: “The Emerging Big Returns on Big Data”, a Global Trend Study by Tata Consultancy Services (2013)

The track record of discretionary IT projects aimed at improving prevailing systems suggests caution in placing too much faith in initial estimates of the likely returns from investment in Big Data. Capturing and analysing large amounts of data are expensive and insurers could over-interpret the results of predictive analysis, reducing the usefulness of the information extracted.\(^73\) Also, data analytics have not entirely replaced the role of human intuition (not yet at least). Human intuition is often vital to contextualise data and understand what drives value in the minds of customers.

Against that background, insurers need to navigate a tricky path. On the one hand, the significant uncertainty attached to the potential payoffs from Big Data investment would argue for a guarded approach. On the other, being too reticent to engage with the new technology may leave insurers vulnerable to robust competition from firms better placed to exploit the power of Big Data.\(^24\)

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\(^{73}\) Some commentators note that abundance of data magnifies potential for statistical predictive errors. See for example, Taleb, Nassim. “Beware the Big Errors of ‘Big Data’”. Wired magazine, February (2013).

\(^{24}\) Formally, uncertainty generates option value in delaying investment. The costs of investment are typically known yet the expected benefits depend on the possibility of “bad news” and hence increase with uncertainty. However, if delay increases the competitive threat from new entrants or incumbent firms, that option value is diminished.
Strategic implications for insurers: threats, opportunities and challenges

This chapter addresses strategic issues raised by the latest distribution technology.

Agents and brokers will continue to play an essential role in insurance distribution, especially for complex insurance products, ...

... though new technology can augment intermediary services.

Channel conflict can be diminished if each channel is providing a valuable service to the customers.

The rise of the aggregator model can nevertheless reduce customer retention...

... and potentially cause adverse selection.

This chapter addresses the following strategic questions raised by the latest technology for insurance distribution:

- How are insurers responding to the competitive dynamics of this new market?
- What are the operational issues raised by the integration of the old and new distribution platforms?
- How might insurers innovate with the technology?

Responding to a dynamic, competitive market

The evolving role of intermediaries

Traditional intermediaries are likely to remain essential, even though customers will eventually be able to arrange virtually all of their insurance through remote channels. Some customers will always want guidance and support and others will prefer to spend less time researching products themselves. The voluminous amount of information on the internet can actually hinder decision making.75 For complex insurance products especially, policyholders in most countries still value the personal interaction and independent, expert advice that traditional intermediaries can provide. Also, in emerging markets insurers will still need an extensive agent network to reach customers who have never before used formal financial services.

There is thus an opportunity for insurers and traditional intermediaries to harness new technologies to meet the needs of consumers. For example, mobile and video chat technology can enable agents and customers to interact remotely. One sector, travel agencies, adapted to the internet by focusing more on specialist advice for complex travel needs.

Channel conflict, such as alienating independent agents with direct-to-consumer internet sales, is often cited as an impediment to insurers implementing a digital distribution strategy.76 However, multiple channels can be complementary rather than conflicting, if each is providing a service valued by the customer. According to a 2013 study by IBM, a high degree of integration across channels can increase customer loyalty to insurers, boosting sales.77

Nevertheless, aggregators present insurers with particular challenges. The typical aggregator business model depends on high volumes of online leads and maximising new business conversions in order to earn one-off introduction fees. While the overall charge may be smaller and simpler to administer than broker commissions, which are incurred at each policy renewal, aggregators may be motivated to re-solicit customers directly, or to encourage market churn to earn repeat fees.78 This can create problems for insurers who manage their business based on projected returns from long-term relationships with customers.

The aggregator distribution model may also drive insurers towards overly aggressive pricing to secure a high web-page ranking on PCWs. This could potentially lead to adverse selection as higher-risk customers seek out the cheapest deal from readily available and easily comparable quotes. Some actuarial consultants estimate that insurers might experience up to 10% higher loss ratios due to adverse selection from aggregator business, compared with other internet business.79

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75 Psychological research supports the potential paralytic impact of too many choices on people’s ability to make decisions. For a review of these concepts, see Schwartz, Barry, “The Paradox of Choice: Why More is Less”, Harper Perennial (2004).

76 For example, channel conflict was cited as a key challenge by 44% of non-life insurers and 46% of life insurers in a recent study: “Insurance in a digital world: the time is now” Ernst & Young (2013).


78 In most cases, aggregators are not permitted to re-approach the customer within the first 13 months after the inception of the contract.

Such factors explain why some major insurers do not participate in PCWs, preferring instead to develop their own direct online offerings. Yet it’s unlikely PCWs will disappear: customers appear to value the services they provide. Insurers will need to develop business models that can prosper alongside the aggregators, perhaps with micro brands targeted at gaining business specifically from comparison websites. Some insurers are also adapting their websites to provide several of the services that aggregators provide. For example, Progressive allows users to compare online prices offered by leading competitors. Similarly in the UK, Aviva customers buying policies direct from the insurer can read and review feedback from others before they buy.

New types of market entrants

The advances in digital technology, particularly the internet and mobile devices, have reduced the start-up costs in insurance, increasing the opportunities for new entrants. Digital distribution especially boosts the potential competitive threat from dynamic, flexible firms with detailed knowledge of their customers. Companies that are adept at using data analytics to gain valuable customer insights and create targeted products are well placed to expand into the insurance business.

According to a 2013 survey of insurance executives by Accenture, 50% of respondents expect new external competitors to enter their markets. Google was most often cited as a new or potential entrant, followed by aggregators, brokers and e-commerce firms such as Amazon. The perceived threat from new entrants is more pronounced for non-life insurers than life, largely because of the standardised nature of some personal insurance lines (see Figure 19).

Figure 19

<table>
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<th>100%</th>
<th>percent of survey respondents</th>
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<td>90%</td>
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<td>80%</td>
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The use of the internet and social media by both firms and individuals is empowering customers. Using social networks, prospective policyholders can collect together efficiently to negotiate discounts on the cost of conventional insurance. These peer-to-peer initiatives currently remain small and offer narrow risk coverage. Some, such as Germany’s Friendsurance, plan to expand into new territories (in this case Australia in 2014). The new mutual insurance pools may have natural limits on their size and ability to displace traditional insurance. First, some types of exposure are likely to exceed the risk absorbing capacity of individuals’ social networks and thus require more conventional institutional structures to provide the risk capital to cover

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81 In 2011, Google Inc. purchased UK auto-insurance aggregator BeatThatQuote Ltd and subsequently launched its own comparison site.
unexpected losses. Second, there may be limited appetite among consumers to involve friends and family in claims settlement, especially if negligence is involved or payout disputes arise.

Nonetheless, such peer-to-peer platforms do have the potential to disrupt the insurance sector, as they have in the music industry and also banking. Social networks could develop pooling mechanisms for self-insurance, which could possibly shift the balance of some primary insurers’ activities more towards administration service providers and away from their traditional underwriting role.

Furthermore, where disruptive innovations may have once taken many years to transform an industry, some researchers claim that new digital capabilities have compressed the adjustment time considerably. In particular, mobile internet platforms make it easier and cheaper to conduct rapid market experiments, to continuously improve products based on user feedback, and to quickly scale up those offerings that catch on and abandon those that do not. The experience of the retail music industry provides an illustration of the potential impact of these so-called “Big Bang” disruptions. In less than a decade, new online digital platforms including authorised websites like Apple’s iTunes music store and licensed streaming services such as Spotify have largely reduced traditional bricks and mortar music distributors to specialist outlets.

Increased emphasis on non-price differentiation

New technology, by providing access to information on multiple products and their prices may increase churn and lapses. In some insurance markets, customer switching propensity has already increased. For most insurance products, however, consumers remain reluctant to change providers because of the inconvenience of doing so. According to a survey by Ernst & Young, the majority of non-life customers are unlikely to switch to an alternative insurer over the next five years in all three regions reviewed (Americas: 65%, Asia-Pacific: 60% and Europe: 58%).

A more transparent pricing environment can lead to product commoditisation (i.e. increasingly similar products) encouraging consumers to make product choices based solely on price. This has already happened in the motor segment in many markets, with consumers viewing auto insurance services as easily substitutable. As the new technology spreads, other lines of business will likely be affected.

However, financial strength and perceived customer service quality are only marginally less important than price in most regions...

82 In the banking world, peer-to-peer (P2P) loans are in some circumstances being bundled together and sold as securities to large investors, opening P2P lending to an even broader potential pool of capital.
83 Some commentators see the rise of peer-to-peer lenders such as Zopa and Funding Circle (which match up companies needing money with investors) and crowdfunding, where small amounts are raised from a number of funders, as an important challenge to traditional banks. See for example, Haldane, Andrew. “Banking may be on the cusp of an industrial revolution”. Wired magazine, September (2013).
Note: No observation publicly available for the importance of client service in the European survey.
Source: “Global Consumer Insurance Survey 2012” Ernst & Young (2012)

Moreover, consumers are more likely to trust insurers that handle claims professionally and provide quality service over the full product life cycle. According to one study, the more trust customers have in their insurance provider, the more loyal they are likely to be. This is especially true in emerging markets.86

Integrating multiple distribution platforms

Achieving cost savings in a multi-channel setting

The move to digital has the potential to reduce expenses but in a number of countries aggregate policy acquisition ratios for non-life insurance have actually risen over recent years (Figure 21). In others, costs have come down despite minimal impact from new distribution channels. In a 2010 survey of UK retail motor insurers, nearly two thirds of respondents (63%) reported that customer acquisition costs had actually increased as a proportion of revenue despite the overwhelming shift to online/telephone sales.87 This reflects the significant upfront costs of, for example, establishing brand strength and a market presence that are often necessary for direct, e-commerce sales.

Digital distribution has fostered savings in administrative expenses, but acquisition costs in many countries have been rising.

Figure 21
Change in sector-wide non-life acquisition ratio (expenses as a percentage of gross written premiums) between 2008 and 2012


87 “Bringing profitability back from the brink of extinction: a report on the UK retail motor insurance market.” Ernst & Young (2011).
To drive down acquisition costs, insurers need to:

- Increase customers’ comfort levels with low-cost distribution channels. These include self-purchase digital channels, where inbound marketing techniques have lower average costs per sales lead than more traditional marketing methods (Figure 22). But it might also include closer tie-ups with retailers or affinity groups whose existing client bases can facilitate closely targeted marketing rather than blanket promotions. For example, in 2013 MetLife launched a direct-to-consumer initiative that offers consumers a pre-paid life insurance policy in a box available at US Wal-Mart stores.

- Improve productivity in marketing with technology such as online search engine optimisation (SEO), pay-per-click/call (PPC) advertising and social media, which all tend to deliver higher sales lead conversion rates than traditional methods.

- Leverage the gains from digital marketing methods to help equalise acquisition costs between channels. Regulatory changes in a number of countries could aid that process by increasing transparency of agent and broker remuneration. For example, in the UK the retail distribution review (RDR), which came into force at the beginning of 2013, obliges financial advisers to charge upfront fees to their customers rather than receive commissions from companies supplying financial products.


Upgrading IT systems

Insurers adopting the new technology could face constraints from legacy IT systems. Fortunately, insurers recognise this issue and, according to a recent survey by Accenture, are developing or are planning initiatives to integrate existing physical and digital channels. More than half of all life and non-life insurance executives surveyed, especially at large firms, said their digital technology was at least somewhat integrated between the front and back-office operations.

Inbound marketing is focused on getting found by customers and includes search engine optimisation (SEO), blogging, and social media. In contrast, with traditional (outbound) marketing companies focus on finding customers. Outbound methods are a more traditional approach to marketing wherein businesses push their messages to prospects, as opposed to attracting prospects to them. Outbound marketing techniques include direct mail, trade shows, and telemarketing.

The new technologies also pose risks of system failures, data loss and cyber-attacks, which can result in financial loss, business interruption and reputational damage. Security breaches can result in loss of private information, a key concern for consumers and regulators alike. For example, in early 2014 South Korea’s financial regulator imposed a temporary market-wide ban on outbound telemarketing of all financial and insurance products following the large-scale theft of personal customer data stolen from three major credit card companies.

Big Data may provide at least a partial solution to these threats through the creation of applications which identify possible fraud, network and hardware vulnerabilities, and data integrity breaches. In this way, Big Data may help insurance executives better understand and manage the risk/reward balance of operating in cyberspace.

Securing gains from innovation

Improved risk assessment and product design

Insurers are typically conservative innovators, improving products incrementally and this approach is often entirely appropriate given the challenge of overstepping the boundaries of insurability. But shifts in technology are challenging incumbent insurers to undertake more radical innovation. In particular, telematics and predictive analytics can facilitate usage-based insurance where premiums are more closely linked to the underlying risks. Closer contact with customers can also help insurers adapt their products to meet changing customer needs, build strong brands and arrest the trend in some markets towards commoditisation.

However, to push forward with more radical innovation may require cultural change in the insurance sector. Some leading insurers have invested in “innovation labs”, (see Box: “Innovation labs”) where a large number of small projects are tested directly on consumers, with only the customers’ favourites surviving. For others, successful innovation requires, among other things, a substantial shift towards a culture that fosters experimentation and accepts a high failure rate during the design process.

Innovation labs are both physical and virtual spaces, open to ideas from customers and all areas of the company.

“Innovation labs”

Several insurers, including those operating on an international and regional scale such as AXA and USAA, have established dedicated innovation labs to foster a culture of customer-centred design. These labs go beyond traditional product design and instead seek to institutionalise a culture of innovation, which accepts multiple failures for every success. One company describes its innovation lab as both a physical and a virtual space, open to ideas from all areas of the company, as well as customers.

A critical factor in the survival of the innovation lab is the approval of top executives, who do not demand positive returns on investment for every project, but recognise the need to experiment to cater to the customer’s changing needs. To better understand customer needs, designers elicit ideas from both employees and customers, test products repeatedly with small groups of users in both individual trials and focus groups, and go through multiple design iterations to incorporate feedback.

90 In a December 2012 survey by the Ponemon Institute, 61% of IT practitioners in the US believed that Big Data could solve pressing security issues faced by companies and governments. However, only 35% reported that they have these sorts of solutions in place.

91 See Swiss Re sigma No 4/2011 for a fuller discussion of product innovation in non-life insurance.
### Strategic implications for insurers:
**threats, opportunities and challenges**

<table>
<thead>
<tr>
<th>At the same time, insurers need to be alert to concerns about data ownership...</th>
<th>In using new tools and developing products, insurers need to be mindful about privacy and ownership. Legal definitions of data ownership can affect who benefits from the insights that the data provide. Legislators in some regions are considering ways to provide “data portability” — the right for consumers to use data about their risk profile to shop around for better deals. 92</th>
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<tr>
<td>... and privacy.</td>
<td>Additionally, regulations on privacy can limit the use of some data, encouraging insurers to adapt underwriting practices. For example, when a 2012 European Union directive prohibited the use of gender in auto insurance underwriting, the UK telematics market leader Insurethebox launched a sister brand “Drive Like a Girl” to offer discounts for safe drivers of both genders. 93</td>
</tr>
<tr>
<td>Distribution innovation can make insurance viable for low-income individuals.</td>
<td>New technology can lower costs, making insurance available to lower-income individuals and families. The distribution of microinsurance products in many emerging economies not only offers insurers access to a vast scalable market, but also educates families about the usefulness of insurance. As their incomes and wealth grow, they will demand more risk protection expanding the overall size of insurance markets. 94</td>
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<tr>
<td>It can also help meet demand from middle-market customers, some of whom prefer less face-to-face contact.</td>
<td>In developed markets, the take up of insurance is already high amongst wealthy individuals. The digital revolution offers insurers the opportunity to target middle-market consumers who are less inclined to pay for advice. A 2011 US study found that a large number of middle-market consumers actually prefer buying insurance products, from motor cover to long-term care, without face-to-face contact. 95</td>
</tr>
<tr>
<td>Global insurers need to ensure that distribution channels are suited to local markets.</td>
<td>Countries have different regulations, income levels and pace of adopting technologies. Global insurers need to be aware of these specific characteristics and avoid imposing inappropriate distribution methods on various countries.</td>
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92 For example, draft EU General Data Protection regulation includes an explicit provision for data portability which confers on individuals the right to transfer his or her material from one information service to another without hindrance.


94 According to Accenture, more than 30 international carriers are offering microinsurance products in various parts of the world, and many more are planning to get involved. See “Succeeding at Microinsurance through differentiation, innovation and partnership.” Accenture (2012).

95 “Who will serve the middle market?” LIMRA (2011).
Digital technology is quietly revolutionising insurance distribution. The internet, mobile devices and telematics are all radically changing how insurers and their customers interact. Customers have greater access to information to evaluate their risk exposures and are becoming more self-directed in how they choose to fulfil their insurance needs. At the same time, innovations in distribution are facilitating access for insurers to a rich source of data about customers and fostering advances in predictive analytics.

Not all insurance sectors are at the same stage of this digital transformation. Likewise, not all will proceed along the same adjustment path and at the same pace. But the direction is clear: globally, digital channels will ultimately be used throughout the distribution process, from information gathering, to purchase completion, to after-sales service. The fast growth of e-commerce in UK motor insurance market demonstrates how quickly consumer buying preferences can change.

Successful insurers will be those who develop a client-centric and digital mind set capable of responding to changes in the market environment and delivering insurance solutions closely tailored to customer needs. Crucial to seamless customer experiences will be the integration of multiple physical and virtual distribution networks and touch-points. Developing personalised products and services will also be important in arresting the trend towards commoditisation in some insurance lines.

The transition will not necessarily be easy. Aside from the operational challenges of integrating new and legacy IT systems and controlling costs in a multi-channel setting, there are hurdles to overcome in securing the gains from Big Data, including protecting customers' privacy. But incumbent insurers and traditional intermediaries must upgrade their business models in order to stay relevant. Else they run the risk of losing out to new market entrants better placed to leverage the insights about existing and prospective customers obtained through digital platforms.

**Conclusion**

Digital technology is a game changer for insurance distribution. Insurers must keep up with shifting consumer preferences, which can change rapidly.

Customer-centric products and services will increasingly become a key competitive advantage.

Failure by insurers to upgrade their business models leaves them vulnerable to more agile new entrants.
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