Improving the success of InsurTech opportunities

Risk Management in a Digital World Working Party

Darko Popovic
Richard Purcell

Introduction to our working party

• Background
  - There has been significant development and enhancement of ERM Frameworks
  - Increased focus and investment into innovative InsurTech opportunities
  - Not clear whether risk management capabilities are being fully utilised to assess InsurTech opportunities

• Working Party members
  - David Bruce (Chair): Partner, Crowe Horwath
  - Carole Avis: CRO, L&G Insurance & General Insurance
  - Matthew Byrne: Chief Actuary, NFU Mutual
  - Visesh Gosrani: Director of Risk & Actuarial, Cyence
  - Zhixin Lim: Senior Manager, HSBC
  - Jools Manning: Head of Strategic Risk, Just
  - Darko Popovic: Senior Manager, Crowe Horwath
  - Richard Purcell: Technical & Innovation Lead, Hymans Robertson
  - Weihe Qin: Financial Risk Manager, Lloyds Banking Group
InsurTech: An opportunity to grow the insurance market?

1 in 10 incomes protected
£2.4trillion protection gap in the UK

The growth in InsurTech funding

What we set out to do

• Understand the current approach and views in this space:
  - Carry out an industry survey
  - Conduct interviews with industry participants

• Develop practical tools for insurers:
  - Develop an overview of a typical lifecycle of an InsurTech project
  - Create a checklist for risk management considerations in the context of InsurTech solutions
  - Produce a final report
Results of our survey

Overview of the survey

- We carried out the online survey from October to December 2017, to help assess:
  - The views and general understanding of InsurTech
  - The current activity of insurers in relation to InsurTech, including their capability in assessing emerging risks from new technologies
- The survey was open to all interested parties and advertised:
  - Through IFoA member emails
  - At the IFoA’s GIRO and Life Conference
  - At the ABI’s “Data, Tech and Cyber” conference
  - Through ORIC International
- Overall we received 124 responses, with 90% being IFoA members

Profile of survey respondents

<table>
<thead>
<tr>
<th>Company background</th>
<th>Primary area of work</th>
<th>Role responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance Company</td>
<td>Actuarial Consulting</td>
<td>Product development</td>
</tr>
<tr>
<td>in Healthcare</td>
<td>Life Insurance</td>
<td>Strategic Planning</td>
</tr>
<tr>
<td>Other</td>
<td>Health and Care</td>
<td>Valuation and Capital Modelling</td>
</tr>
<tr>
<td></td>
<td>Finance and Investment</td>
<td>Reinsurance</td>
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</tbody>
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**InsurTech can add significant value**

InsurTech has ramifications for whole industry....

...and can add significant value to insurers in helping deliver the business strategy

Drivers of development and adoption

New technology and changing consumer needs and expectations are the key drivers of InsurTech:

- Development of new technology
- Adoption of technology by other markets is forcing change in insurance
- Changing customer needs
- Changing customer expectations of experience
- Reducing expenses
- Increase in investment by incumbents
- Increase in number of start-ups
- Other

Most are engaging in InsurTech in some way....

...through a variety of strategies:

- No activity currently
- No activity but observing the market
- Actively looking at opportunities
- Fully active in developing/investing in opportunities

What are insurers doing?
Low understanding of new technologies

Respondents indicated a high level of awareness of new technologies and innovations, but showed a lack of confidence and understanding of these items:

<table>
<thead>
<tr>
<th>Technology</th>
<th>Awareness</th>
<th>Comfortable Explaining to a Colleague</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet of Things</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>Big Data</td>
<td>65%</td>
<td>45%</td>
</tr>
<tr>
<td>Artificial intelligence</td>
<td>60%</td>
<td>50%</td>
</tr>
<tr>
<td>Machine learning</td>
<td>55%</td>
<td>45%</td>
</tr>
<tr>
<td>Blockchain</td>
<td>70%</td>
<td>50%</td>
</tr>
</tbody>
</table>

What are the key risks?

Respondents believe insurers recognise the key risks...

Are existing ERM frameworks suitable?

...but say insurers have gaps in their existing risk frameworks and risk management skills:
Survey conclusions

- **High value**: Embracing InsurTech opportunities can add significant value to insurers
- **Mixed approach**: Insurers are at various stages of development and are adopting different strategies
- **Skills gap**: There is good awareness, but low understanding of new technologies
- **Evolve risk frameworks**: Risk management frameworks are not suitable and need to evolve

**Interviews**

- We interviewed senior stakeholders within the insurance industry:
  - Helping us understand the industry sentiment and approach to risk management in practice when considering InsurTech opportunities
- **Focus of questions**:
  - Trends and opportunities
  - Key drivers
  - Key risks and how to manage them
  - Lessons learnt and any concerns
- **Key points arising**:
  - Drivers of the growth of InsurTech
  - Key emerging risks
  - Relevance of existing RRM Frameworks
  - Management of broader threats to business models and strategy

**Overview**

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Mini case studies

Some interesting quotes…

• "Industry is mainly focused on the financial risks, much less so on conduct risks. When does a price comparison site become an "advisor"? For example, in the regulator’s eyes?

• "If customers are unhappy with the current product/service then the market is ripe for disruption"

• "Trend seems to be that people are asking money for undeveloped ideas, which seems to suggest a bubble forming. However, some of the underlying technologies, e.g. Blockchain, tracking devices as few examples, have great potential"

• "The current framework is not unsuitable, but is certainly not optimised. If that were ever possible, I would argue the framework is not optimised for digital world because we are not in it yet. "

Guide for Risk Considerations During the Innovation Journey
Overview

A set of standard InsurTech implementation stages used during the full lifecycle of investing in an InsurTech Solution is set out below:

1. Opportunity
   - Considering options and alignment with business strategy
2. Planning
   - Creating the InsurTech strategy
   - Identifying solution options
3. Pilot
   - Testing the concept
4. Implementation
   - Mobilising the Project
   - Developing the Capabilities
5. BAU Environment
   - Embedding the Processes
6. Review
   - Closure activities

Checklist for digital solutions

1. Opportunity
2. Planning
3. Pilot
4. Implementation
5. BAU Environment
6. Review

Example 1: Details

Considerations: Strategy & Business Planning

Business Strategy & Business Plan
1. Do you have previous experience of delivering digital solutions? What lessons have been learnt?
2. What capability do you have to deliver if in house or partner with external firms (partners can help to reduce timescales and risk)? Which approach is more aligned with strategic objectives? i.e. in owning the IP key to business?
3. Does your firm have clear and rigorous decision-making processes to follow when choosing a digital opportunity?
Checklist for digital solutions

Example 2: Details

Considerations: Risk Management Processes

1. How can your firm’s leaders manage that function’s transition to greater digitisation?
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4. How can your firm’s leaders manage that function’s transition to greater digitisation?

Training & Communication

1. What gaps, if any, exist in staff competencies and skills required to drive a digital strategy?
2. What training needs to be developed and delivered?
3. Is there the necessary skills and expertise in-house or is external expertise required?

Checklist for digital solutions
Next Steps

What next for the Working Party?

Digital Risk Appetite

- Form views and recommendations to assist actuarial practitioners, and other interested parties, in defining and developing the digital risk appetite of an organisation.

Blockchain

- Assist actuarial practitioners, and other interested parties, in developing emerging uses for blockchain to manage data, for the purposes of insurance-related activities.

Education and Training

- Identify current CPD and training opportunities, and identify where the knowledge of relevant concepts amongst actuaries falls short of the widespread awareness of the concepts.
- Develop recommendations for addressing these gaps.

Thank you

- Report and Guideline published online – please take a look
- Working Party commencing Phase II – call for members

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