› Research Report

Insurance Companies: Are You Equipped to Successfully Combat Fraud?

A SAS Research Report

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Contents

Executive Summary

Insurance fraud is on the rise. Statistics published in the Netherlands in 2013 by the Verbond Van Verzekeraars[1] suggest that insurance fraud has increased by 25 per cent in the last five years, adding €150 to the average policy. Figures released from Agence pour la lutte contre la fraude à l'assurance (ALFA)[2] suggest that in France alone this is a €2.5bn per annum problem, and in the UK the Insurance Fraud Bureau (IFB)[3] estimates that undetected insurance fraud amounts to £2.1bn, adding £50 to the cost for each policyholder.

With these figures in mind, many insurers across the globe are now looking to strengthen their ability to combat fraud by recruiting new investigation teams, conducting reviews/enhancements of claims and new business processes and investing in enhanced technologies. These changes are being led in part by increased competition, mature markets, a reduction in the reliance on investment income and emerging new distribution channels. In addition, there has been an overall long term squeeze on expenses to reduce the Operating Ratio and these factors combined mean there are few options left for insurers to significantly improve their balance sheet.

It is universally accepted that between 10 to 15 per cent of all non-life claims have an element of fraud, so by proactively tackling fraud an insurer can reduce claims spend by between 3 to 5 per cent, making a real impact on the overall loss ratio and balance sheet.

Across Europe we have seen a number of insurers act as 'early movers' to make use of business analytics as an integral part of this fight. Insurers such as Allianz[4] in the Czech Republic have already seen significant additional benefits with savings of approximately CZK 1110 million a year.

Over the summer of 2014, SAS undertook a Europe-wide online survey inviting insurers to participate in order to discover their maturity level in fighting fraud.

This report provides a summary of the key findings of this survey, including:

- The majority of respondents already have either a dedicated investigation unit (33 per cent) or a team that operates across the insurer's different departments (35 per cent).
- A high percentage of respondents (79%) are actively detecting claims fraud, and 39 per cent were detecting fraud at new business/underwriting stage.
- Less than 1 in 10 (8 per cent) had improved their fraud detecting rate year-on-year by more than 10 per cent.
- 81 per cent of insurers were using some form of automated detection technologies, with 49 per cent using business analytics.
- Of those using business analytics, 57 per cent had seen the amount of fraud they detected year-on-year increase by more than 4 per cent. In contrast, of those insurers with no solution or those using only business rules, only 16 per cent had seen a similar increase.
- In terms of organised fraud, 28 per cent of respondents were using automated technology or had a project currently underway. A further 33 per cent were starting such a project.
- Similarly for opportunistic fraud, 24 per cent were using automated technology or had a project currently under way and a further 36 per cent were starting such a project.
- 21 per cent of insurers monitor their fraud levels in real time; whilst 64 per cent monitor their fraud levels on a monthly or quarterly basis.

1 Source: http://www.rtlnieuws.nl/nieuws/binnenland/verzekeraars-sporen-steeds-vaker-fraude-op

2 Source: Les Echos - http://www.lesechos.fr/23/10/2012/lesechos.fr/0202344662513_fraude-a-l-assurance---un-cout-estime-a-2-5-milliards-d-euros.htm

3 Source: IFB web site - http://www.insurancefraudbureau.org/

4 Source: SAS web site - http://www.sas.com/en_us/customers/allianz-fraud-management.html

Key Findings

Current Situation

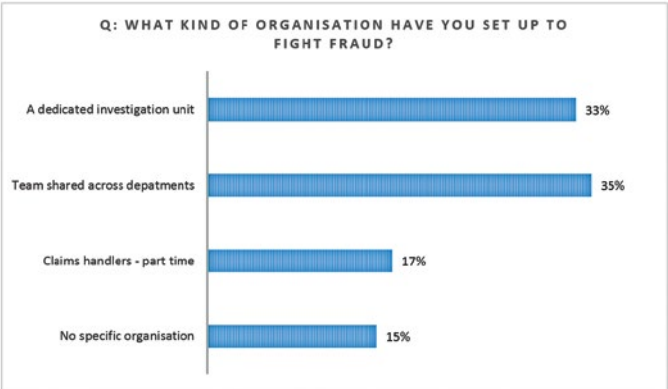

Figure 1: Organisation set up to fight fraud

The majority of respondents reported that they already have in place either a dedicated investigation unit (33 per cent) or a team that operates across the insurer's different departments (35 per cent). Only 15 per cent of insurers do not have any fraud detection team; the remainder (17 per cent) relying on their claims handlers to work part-time on fraud.

SAS' experience of working with insurers globally has shown that a dedicated investigation team is essential for fraud detection and in recent years we have certainly seen a significant increase in the creation of these teams. The skills required within an investigation team are very different from those of traditional claims handlers, whose primary role is to 'hand-hold' the claimant through the claims process. The investigation team usually consists of a mix of ex-police and experienced claims handlers, whose role is to investigate suspicious claims.

An investigative team will have a clear fraud focus and financial measurements in place, including claims spend saved.

Figure 2: Number of FTEs dedicated to fighting fraud

When asked about the number of full time equivalents (FTEs) that the insurers have working solely on insurance fraud, only 11 per cent had more than 10 and 29 per cent stated that they had no FTEs.

The number of FTEs within the investigative team is linked to the relative size of the insurer and the number of claims handled. It is however surprising that 3 out of 10 insurers stated they currently have no full time equivalents and an additional 2 out of 10 have only 1 or 2 people in this role. As outlined above, SAS' experience shows that dedicated fraud teams and individuals are key to efficient fraud management as they have a different skill set to traditional claims handlers. Plus having a dedicated team ensures that there is a clear fraud focus and allows the insurer to set targets and objectives around managing fraud.

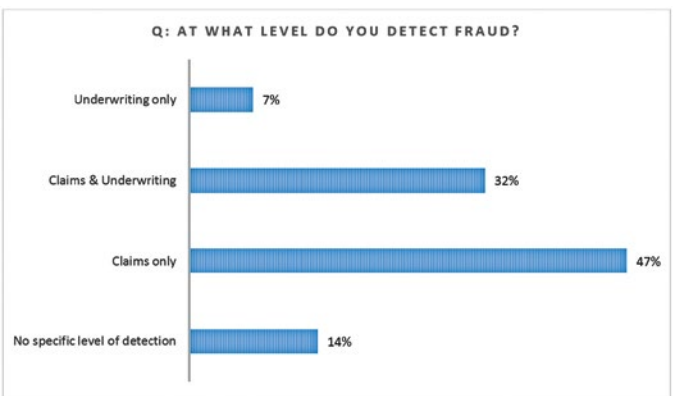

Figure 3: Fighting fraud at claims and/or underwriting stage

Insurers were then asked about where in their processes they fight fraud. The typical 'journey' that we see within most insurers is to start with 'detection' within the claims department and the relevant claims process, and then to later migrate some of these findings into 'prevention' within the new business or underwriting units and related processes. This was reflected in the survey findings, with almost half of insurers working only at claims level, whilst nearly a third were working both at claims and underwriting levels. Interestingly, a small number of insurers reported that they were working in underwriting/new business only.

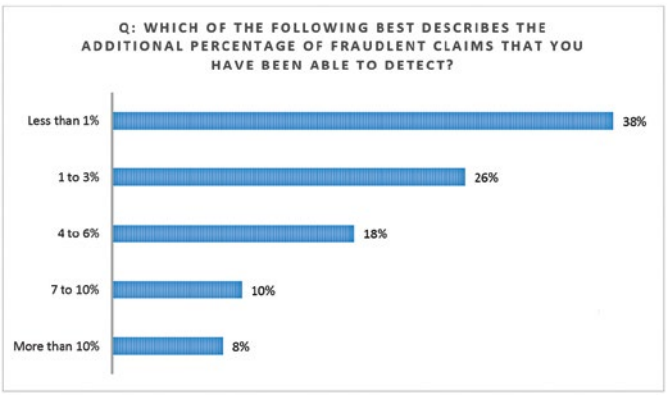

Figure 4: Percentage increase year on year

The insurers were then asked how their current rates of detection compared with the previous year. Just under 4 out of 10 insurers stated that they had improved the additional percentage of fraud they were able to detect by less than 1 per cent. Only 8 per cent of respondents had seen improvements of over 10 per cent.

This is perhaps the most surprising finding of the research where, despite clear indications that insurance fraud is on the rise globally, just under two-thirds of insurers had seen the additional percentage of fraud that they had detected increase by less than 3 per cent compared to last year.

These findings cause us to question why so many insurers are failing to significantly increase the number of fraud cases detected year-on-year, against an industry background of growing fraud and associated losses. Is it related to the detection process used? Or the lack of updated expertise of the claims handler? Or the use of automated detection tools?

In the next section we look at the usage of automated detection technologies. SAS has a large number of insurers across the globe who are already benefiting from the usage of these types of technology. Examples include Allianz in the Czech Republic[5], who saved approximately CZK 1110 million a year by reducing the number of fraudulent claims paid, Poste Assicura[6] in Italy who have estimated savings of between 5 and 10 per cent of claims paid, and CNA[7] in the United States who have seen savings of over $6.4m within two years of implementation.

Use of Automated Detection Solutions

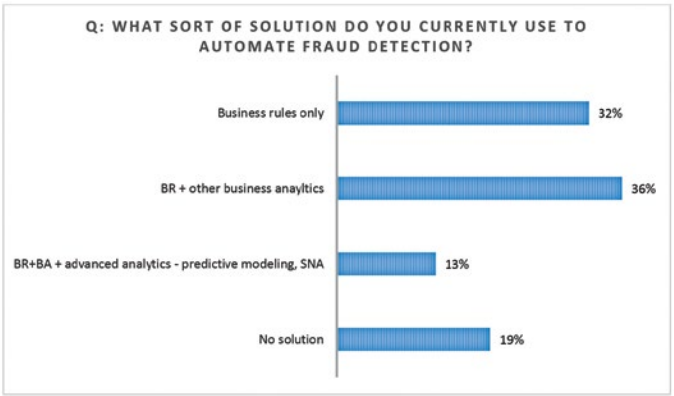

Figure 5: Automated solutions for fraud detection

The survey went on to ask which automated technology solutions the insurers are currently using to detect suspicious claims cases.

The majority (8 out of 10) stated that they make use of business rules and just under half have some basic analytical capabilities (such as anomaly detection). Almost 20 per cent of insurers stated that they did not make use of any technology, whilst only 13 per cent were using a comprehensive range of techniques including business rules, business analytics techniques and advanced analytics such as predictive modelling and social network analysis.

In the fight against insurance fraud, the use of automated detection technology can significantly help. Whilst this does not replace the expertise of the claims handlers, it acts as a second line of defence where the underlying data can be used to identify suspicious claims or networks of claims. These automated detection technologies can be varied, ranging from business rules through to advanced analytics such as social network analysis and predictive modelling.

Critical here is the use of the term 'automated', where rules, models, networks etc. are run via relevant software without the existing claims process. The claims handler can continue with the existing claims process, whilst the detection solutions automatically score the claim and, if relevant, raise an alert.

5 SAS web site - http://www.sas.com/en_us/customers/allianz-fraud-management.html

6 SAS web site - http://www.sas.com/en_us/customers/poste-assicura.html

7 SAS web site - http://www.sas.com/en_us/customers/cna.html

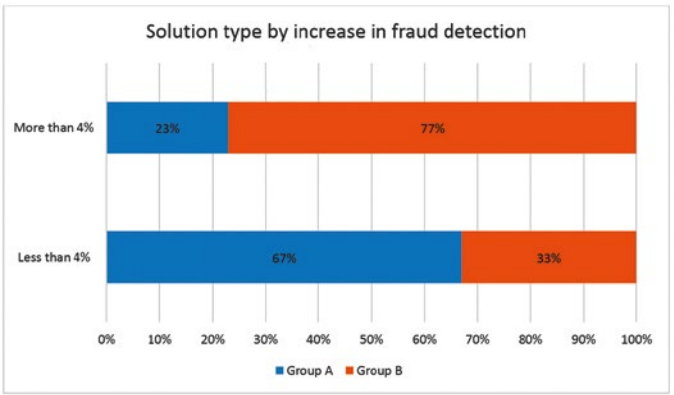

Figure 6: Solution type by increase in fraud detection

In Figure 6 above, we have combined the responses to the questions querying what type of automated solutions the insurer currently uses and what percentage saving increase they have found year-on-year.

Specifically we have separated into two groups the responses regarding the additional amount of fraud the insurers have been able to detect – those that found less than 4 per cent and those that found 4 per cent or more. We have also split the responses on the types of automated fraud solutions that they are currently using, again into two groups. The first group (Group A) shows those insurers using 'No Solution' or 'Business Rules Only', and the second group (Group B) shows those using Business Rules and other Business Analytics as well as those using Business Rules, other Business Analytics and Advanced Analytics.

This combined view shows that 77 per cent of those who achieved an increased fraud detection rate of more than 4 per cent year-on-year are using analytics, whilst 67 per cent of those achieving a year-on-year saving of less than 4 per cent are either using no solution or are using business rules only.

We can also express the same data in a slightly different way:

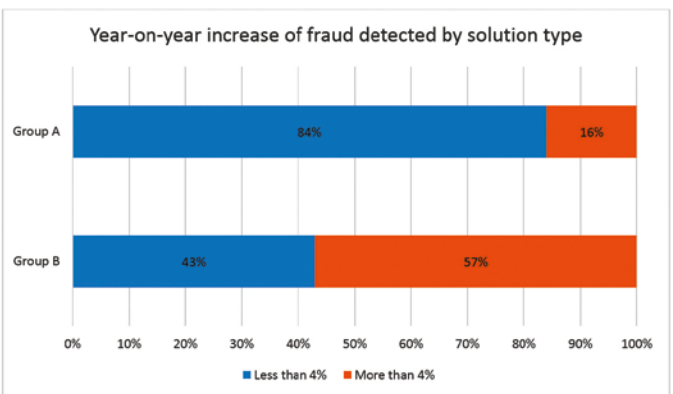

Figure 7: Year-on-year increase of fraud detected by solution type

In Figure 7 we can see that for all those with no solution or business rules only (Group A), only 16 per cent achieved a year-on-year increased fraud detection rate of more than 4 per cent. Comparing this to those that used both business rules and analytics (Group B), this increases to 57 per cent having made a saving of greater than 4 per cent.

Figure 8: Use of automated solution to detect fraud organised and opportunistic fraud

Survey respondents were then asked about their current systems and their projects for combatting both organised and opportunistic fraud.

For combatting organised fraud, over a quarter of respondents confirmed they already have a system in place or are in the process of implementing such a solution. An additional third of respondents do not currently have a solution but have a project set up, and just under 40 per cent of insurers have no solution and no immediate plan for such a solution.

The results for opportunistic fraud are similar, but in terms of implementing a solution are slightly behind organised fraud, as expected.

This fits well with the demand we are seeing in the market for analytical technology solutions that will support the detection process. As shown above, one in ten insurers are now implementing such technology and a further third have a project in place to look at this technology.

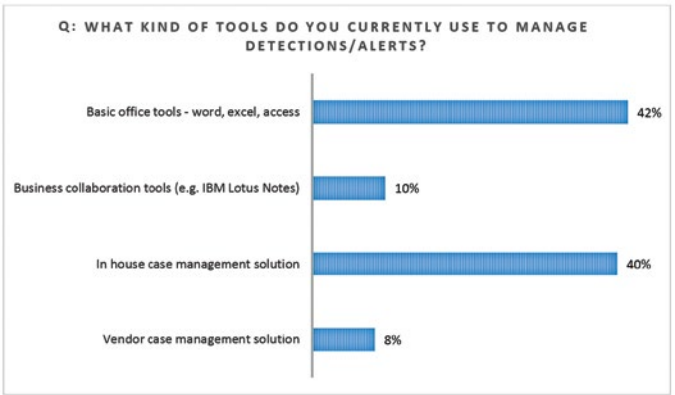

Figure 9: Managing alerts by solution type

In terms of the use of technologies to help manage detections and alerts, almost half of respondents make use of a case management solution, with an additional 10 per cent using business collaboration tools.

The take up of such technologies will directly correspond with the size of the investigation team and the number of referred claims. At SAS, we have seen interest in case management solutions from the larger insurers.

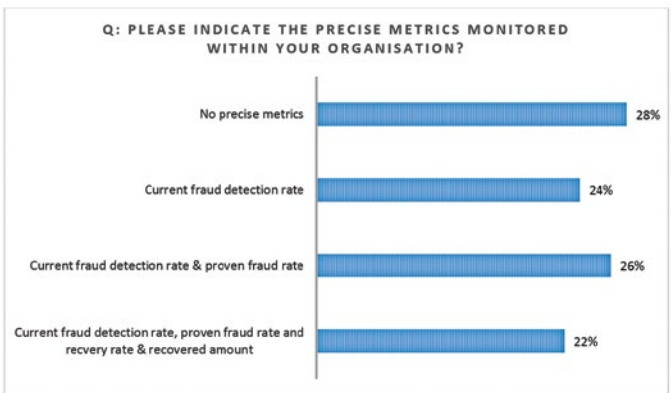

Figure 10: Fraud metrics monitored

Understanding and being able to monitor exactly what is happening in the detection of fraud is a key part of any fraud detection process and technology. Surprisingly, nearly 30 per cent of respondents indicated that they do not have precise metrics covering fraud within their organisation and we would suggest this become a priority. Being able to measure the effectiveness of current activities is key for all insurers, both to help identify areas of improvement (such as reducing the 'false positive' rate), as well as to measure the effectiveness of introducing new processes and new automated technologies.

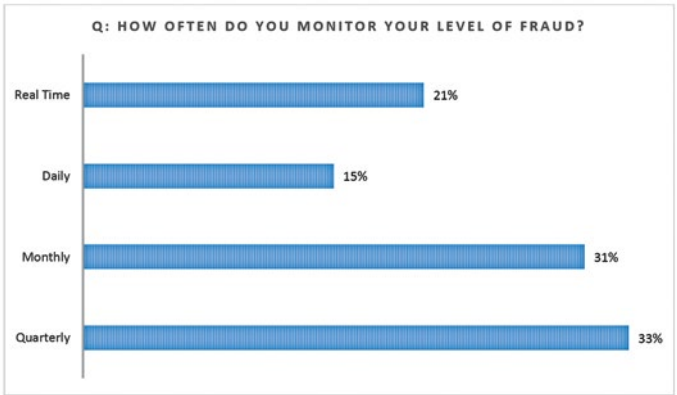

Figure 11: Frequency of monitoring fraud level

Respondents were then asked how often they monitored their fraud levels, with just over a third of insurers stating that they were able to do this in real-time or on a daily basis. The remainder were monitoring their levels on a monthly or quarterly basis.

In SAS' experience, being able to respond to new threats is key to any insurer. We would strongly suggest that insurers should be looking at their fraud levels on a monthly basis as a minimum, with the optimum frequency being daily or real-time. This becomes even more critical when looking to identify fraud during the subscription process, due to the speed of new schemes hitting insurers.

Conclusion

The rise in insurance fraud continues at a pace but it is encouraging to see that many insurers across Europe are reacting to this by investing in specific teams and appropriate technologies. The survey results confirm our market experience that most insurers are detecting more fraud year-on-year.

But there is still much to do.

Insurers need to invest in specialist individuals and teams to ensure a tight fraud focus within the claims process. This should not be a barrier to excellent customer service for the 85 per cent or so of genuine claims, but should ensure that those attempting to extract money unlawfully are prevented from doing so.

One key finding of this research is that insurers that have invested in appropriate fraud detection analytical technologies have seen significantly larger increases in fraud detected than those who have no such technologies in place, or those using just business rules engines. Simply put, investing in a hybrid analytics approach, making use of multiple analytical techniques and combining the results, means that an insurer will detect and prevent more fraud.

When recruiting investigative teams and using the hybrid analytics approach, SAS' customers have found the investment to be highly cost effective, with a number of our clients reporting that they have seen rapid payback within months.

About the Survey

The survey was conducted during May to August 2014. In total 72 European insurance companies responded and the breakdown of the type of insurer is shown below. Countries participating in the survey included Belgium, France, Netherlands, Portugal, Spain and the UK.

Main line of business	Number responded	Percentage
Auto	35	49%
Life	9	17%
Health	7	13%
Property	6	8%
Workers Compensation	3	4%
Other	12	17%
TOTAL	72	100%

About SAS

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Appendix

Survey Questions

1. What is your company's primary business line?
   - o Auto
   - o Property
   - o Health
   - o Life
   - o Workers compensation
   - o Other
2. What kind of organization have you set up to fight fraud?
   - o No specific organization
   - o Claims handler that works part time on fraud
   - o A team shared across different departments (IT, Risk, Claims, Internal control, Compliance)
   - o A dedicated Investigation Unit
3. How many full time equivalent (FTEs) people do you have working solely on fraud detection?
   - o 0 FTE
   - o 1-2 FTE
   - o 3-5 FTE
   - o 6-10 FTE
   - o More than 10 FTE
4. What sort of solution do you currently use to automate fraud detection?
   - o No solution
   - o Business rules only
   - o Business rules and usage of others business analytics techniques
   - o Business rules, business analytics techniques and advanced analytics such as predictive models, social network analysis
5. At what level are you able to detect fraud?
   - o No specific level of detection
   - o At claims level only
   - o At underwriting level only
   - o At both claims and underwriting levels
6. Compared to last year, which of the following best describes the additional percentage of fraudulent claims that you have been able to detect?
   - o Less than 1%
   - o 1 to 3%
   - o 4 to 6%
   - o 7 to 10%
   - o More than 10%
7. What is your current status regarding the use of an automated solution to detect organized fraud?
   - o No solution has been implemented yet and no current project
   - o No solution in place, but there is a project to set up such a solution
   - o Solution currently being implemented
   - o There is a solution in place
8. What is your current status regarding the use of an automated solution to detect opportunistic fraud?
   - o No solution has been implemented yet and no current project
   - o No solution in place, but there is a project to set up such a solution
   - o Solution currently being implemented
   - o There is a solution in place
9. What kind of tools do you currently use to manage detections/alerts?
   - o Basic office tools – word, excel, access
   - o Business collaboration tools (such as IBM Lotus Notes)
   - o In house case management solution
   - o Vendor case management solution
10. Please indicate the precise metrics monitored within your organization?
    - o No precise metrics monitored within my organization
    - o Our current fraud detection rate
    - o Our current fraud detection rate and our current proven fraud rate
    - o Our current fraud detection rate, our current proven fraud rate and our recovery rate and recovered amount
11. How often do you monitor your level of fraud?
    - o Quarterly
    - o Monthly
    - o Daily
    - o Real time
12. Compared to this time last year, what is your view of the status of fraud within your organisation?
    - o We've seen a significant rise in fraud losses in the past year
    - o Fraud losses have remained the same in the past year
    - o We've seen a reduction in fraud losses in the past year

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