Customer Selection and Retention

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Summary & Contents:

This paper has been produced by the Customer Selection and Retention working party. It is a look at the relations between personal lines insurance companies and their customers. The paper covers all personal lines to some extent but highlights motor insurance as the most widespread and well understood personal lines product. The paper divides into three sections: how to obtain the right customer, how to retain your customers, and a crystal ball peek into the future of insurance distribution.

1. Customer Selection

1.1 How customers make contact

1.1.1 Customers come to a company from many sources; it is important that the effect of the source of customers on profit is realised. Before the impact of direct insurance, which accounted for 28% of the motor insurance market in 1995, business came through intermediary channels and affinity business. With the surge in direct writers the methods of attracting new customers have grown, with direct response coming through advertising on TV/radio, national newspapers and also through recommendation by existing customers. In this initial section, the sources of business are outlined together with their impact on retention and claim frequency.

1.1.2 Television is the most expensive of advertising media and campaigns can cost upwards of £2.5 million. More than one approach can be adopted by companies advertising on TV and radio. The "burst" approach, often accompanied by a new product or company launch, with a large amount of coverage over a short period of time, can be less expensive than the "drip, drip" approach which keeps the company's name constantly in the mind of the customer. The cost of producing a quotation from TV advertising can range from £80 to £100 per quote and is significantly higher than any of the other sources of business. The cost of advertising in the London region is also significantly higher than for other regions. Planning TV advertising is complex with slots required to be booked up to 3 months in advance. Since TV is used in general to build brand awareness so that prospective customers remember the company when it comes to the time to buy or renew their insurance, the awareness of the company's brand in the market is extremely important.

1.1.3 Press is the next most expensive form of advertising and there is a huge variation in the costs which can be incurred. Press ranges from placing adverts in chosen newspapers to advertorials (advertisement features) on a specialist subject which mention the company as a provider of the insurance product. The costs of advertising in a newspaper can vary significantly depending on the type of newspaper chosen. A press campaign can cost upwards of £250,000 per annum, which would not include the cost of the original copywriting of advertisements. Press campaigns are flexible in their format with different messages projected to target specific groups of customers. Alternatively, adverts can be placed in specialist magazines such as "Top Gear". The normal lead-time for placing a press advert is 3 months, although next-day advertisements can be found. The cost of producing a quotation from press is in the region of a third of the cost of television, but can vary widely depending on the publication used.

1.1.4 Directories, such as Yellow Pages or Thomsons, are present in everyday life. They are the cheapest media in which to advertise at about £150,000 per annum for nation-wide cover. Adverts struggle to stand out from each other and there can be up to 100 large adverts for motor insurance in one issue. The flexibility of changing a message through a directory is poor with a 3 month lead-time to place the advert, and the advert remaining in the directory for up to 12 months. They represent the cheapest method of producing quotations at about £2-5 per quote. Companies have gone some way to try to differentiate themselves in directories through "stiffer" full page adverts or taking the back cover page of the directory.

1.1.5 All companies would like to be recommended to customers. The cost of being recommended is nil and therefore the cheapest of all methods of attracting a customer. It is important however that the type of recommendation is correct. The best recommendation is on service rather than price. This influences the customers' expectations favourably when comparing price with a competitor. The increase in recommendation business is key to a company brand and loyalty, and is an excellent indicator of how a company's customers view it. As the proportion of customers who make contact through recommendation increases, it is a reflection on not just the marketing but on the service and the company's culture as a whole.

1.2 Different customers choose different methods for contact

1.2.1 Customers also have different behaviour in the way in which they make contact; this is already present with those who feel comfortable dealing through a broker rather than direct with the insurance company. A source of business also attracts a range of different customers: observations based on the experience of some direct companies for a selection of the better known sources follow.

1.2.2 Directories are very popular with under 30-year-old customers. This may be because they are happy to ring 10 companies to find the cheapest quotation and use the directories and yellow pages as a means to fulfilling this aim. People under 30 are twice as likely to say that they used a directory as people over 30. These people are likely to ring a minimum of 5 companies and have limited loyalty in the market. They will float from company to company to obtain the cheapest price. With price negotiation on the telephone by the telesales agent becoming more commonplace there may be an incentive for these customers to challenge any price given. Other "brand" methods of advertising can also have an impact on customers who come through directories. When the advert is seen in the directory, the company may be recognised due to television or press advertising. The statistics collected at the time of quotation on this source of business can be distorted as directories are often used as a default answer while the initial trigger can be more subtle.

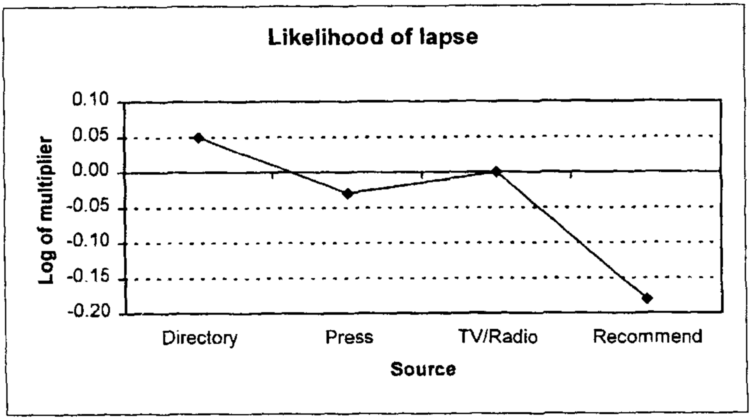
1.2.3 Press has a major impact on over 55-year-olds. People over 55 are 4 times as likely to contact the company through a press advert than people under 30. The volume of response and type of customer is also very dependent on the newspaper or magazine, although this can be factored into the price which is charged.

1.2.4 Television has most impact on the 30 to 40 year old group although it does increase brand awareness in general. This group may have young children and stay at home as a result. Their response is a function of how they spend their leisure time and the influence that TV has on their lives. Their response through other distribution channels is fairly level.

1.2.5 Recommended business is stable through all age groups and is the best source of business. If a friend recommends the company then that customer will definitely ring and will not ring as many competitors. Recommendation creates a very good "image" of a business and is not limited to any specific type of customer.

1.3 The effect of customer selection

1.3.1 Relating the source of customers to retention and profit is key to the business result. So does the source of customers really make a difference?



1.3.2 The graph shown above has been produced from a generalised linear model of renewing policies: the full details of this investigation are discussed in part 2 of this paper. The graph shows that directories have the highest lapse rate, with TV and press relatively level and recommended having the lowest lapse rate. This links with the intuitive argument that those customers who find a number in the yellow pages will also see other companies' numbers and have no direct loyalty to the company. On renewal these customers will again go back to the yellow pages to find their next insurer.

1.3.3 Recommended being the best category is also intuitive. A customer who is recommended and is happy with the service provided is less likely to move on renewal. Those customers who take a policy on recommendation are also less likely to ring other companies on renewal. It is a danger to the image of a company if these customers do move as they will normally tell all their friends and acquaintances about the bad service they received.

1.3.4 The result of this investigation shows that increasing the proportion of customers recruited through recommendation will increase retention. Retaining this customer for longer will increase the lifetime value of the policy significantly.

1.3.5 The significance of a making a claim by source of business was also examined. On the basis of the data examined, source of business was not a significant factor in making a claim. There is no evidence to suggest that tabloid readers may be a worse risk than customers attracted by TV. However, further segmentation of the data may reveal poorer risks in individual areas below the high levels of Recommendation, TV and Radio, Press and Directories which were investigated in this exercise.

1.4 How source of business can be used to change customer profile

1.4.1 The flexibility of using source of business depends on business style. If a brand approach has been adopted, the building of brand will impact across all areas and targeting will become more difficult. Exposure can be limited to certain type of customers by direct mailing or not direct mailing specific areas of the country. Credit scoring, CUE (Claims and Underwriting Exchange) and automatic retrieval of vehicle information at the point of quotation can also weed out some of the potentially poor risks irrespective of the source.

1.4.2 The ability to change the message as a company is also crucial; TV advertising is a planned campaign with a lead-time of 3 months and the possibility that adverts will run for 1.5 to 2 years. TV enables the image of the company to be changed from "price" orientated to "service" orientated and helps to differentiate the company from competitors who offer similar products. Directories' messages need to be generic as they can not be changed for 12 months from the date of printing, and so can not be used to vary brand message. Specific press advertisements and sponsorship of "suitable" events is a proactive way to target specific customers who are felt to be profitable. Hopefully, word of mouth will enforce the image.

1.4.3 The selection of certain customers can also be used to assist operationally. Older customers make fewer claims which can result in a reduction in the teams needed to handle claims. The ability to cross-sell to customers is helpful in their retention: if the insurance needs of a customer are fulfilled in more than one area they are less likely to move all products to another company. This results in a smaller but more stable and profitable customer base.

2. Customer Retention

2.1 Introduction to Retention

2.1.1 Insurers want a good customer for life, not just for new business. Whatever the media, advertising to build up brand awareness and attract custom is expensive. To get the best return on this initial investment it is necessary to ensure that the customer returns for repeat purchases at profitable rates, be it renewal or cross sell.

2.1.2 Traditionally, retention rates have not been an important issue in personal lines insurance. Before customer power had been invented and before insurers were "customer focused" it was accepted that retention rates varied according to line of business, viz.:

Line of Business	Comment
Non-comp Motor Insurance	A young policyholder market. Very high turnover in policyholders.
Comp Motor Insurance	Retention used to be stable, but after the heavy rate rises of the early '90s and the emergence of direct insurers advertising on price customers became more promiscuous.
Home Contents Insurance	Apart from higher net worth business, building societies used to dominate this field. There was perhaps some reluctance for customers to switch cover because of either: (i) uncertainty of cover (ii) problems over revaluation of high value items such as jewellery (iii) inertia.
Home Buildings Insurance	This cover used to go with the mortgage, and policyholders were worried in case alternative cover was not as comprehensive.

2.1.3 The premium rate increases and the growth of direct insurance operations in the early '90s led to a turmoil in the market which tested customer loyalty beyond breaking point. With alternative insurers offering much cheaper insurance, instant standardised cover and an almost instant cover note, customers started lapsing in droves.

2.1.4 Things had changed and the customer driven market place was beginning to emerge. Loyalty had already been recognised in other industries such as food, clothes retailing and banking. It was only a matter of time before insurers began to understand the importance of customer retention. In today's personal lines insurance market:

(i) The press are inciting customers to shop around *at each renewal* - "just because you switched to a cheaper insurer last year does not mean that your insurer will be the cheapest this year".

(ii) Even for broker based insurers, the broker is now the customer's champion and feels obliged to re-broke many cases (even at mid-term adjustment) to ensure that they do not lose *their* customer.

(iii) The renewal date is no longer always special. If a policyholder moves house or changes vehicle, alters the sum insured or adds another driver to the motor insurance, and the additional premium to be levied plus administration fee is not to their liking then the customer is just as likely to shop around for a better deal "mid-term" rather than wait until renewal.

2.1.5 Insurers can no longer take customers for granted, particularly today when margins on personal lines new business rates are, if they exist, wafer thin. As an industry the focus of advertising has shifted away from price to service. Service means "we're still competitive on price but if you find someone cheaper than us you'll be compromising quality of cover and service". The continuing soft market suggests that this advertising message may not have been accepted. Furthermore, if the quality of service is advertised, then:

(i) The customer is more likely to use that service.

(ii) The customer is more likely to complain if the service is not as good as expected. Then, if not satisfied with the response, they are quite likely to switch to another insurer and make negative comments to all of their friends.

2.2 The Economics of Retention

2.2.1 In the environment of increased competition, understanding what affects policyholder retention can form an important part of the premium rating process.

2.2.2 In general, three things may affect the propensity of a policyholder to lapse:

(a) *Who they are*

Different types of policyholder will behave differently. Young people will have higher premiums and perhaps less money, and may therefore have a stronger motive to shop around. Factors such as type of car and frequency of premium payment will also affect a customer's renewal behaviour.

(b) *What their insurer has done to them*

Changes in premium upon renewal will obviously effect retention. In the event of a claim, the quality of an insurer's claims service may also have a bearing on the probability of lapsing.

(c) *What other insurers have offered them*

The competitiveness of the renewal premium in relation to the market will also be a key factor in a policyholder's decision process.

2.2.3 Policyholder characteristics such as age and vehicle type cannot be altered. Nevertheless if their effect upon retention can be quantified, acquisition expenses can be spread across the expected lifetime of a policy, which allows more accurate pricing of the total expected cost of a policy to an insurer.

2.2.4 The proposed renewal premium, however, can be altered. An understanding of the price elasticity of a portfolio is a powerful aid in determining optimal premium levels which should be offered at renewal. Detailed policyholder retention models can be used as part of financial projection tools to investigate the possible effects of different potential rating changes.

2.3. Analysis of Price Sensitivity and Customer Loyalty

2.3.1 Following the initial meeting of the working party it was clear that any views on the effects of price sensitivity upon customer loyalty should be backed up with analytical evidence. Because it would be difficult for insurers to agree to contribute data for an in-depth analysis, the inevitable compromises between depth of analysis and confidentiality of contributor's data were accepted and worked around in defining the scope of the analysis.

2.3.2 Working party members agreed that the scope of the analysis would be as follows:

(a) Working party members would, where possible, contribute policyholder retention data in an agreed format.

(b) The data from all contributing members would be combined, and the combined data would be analysed using generalised linear models.

(c) Although "company" would be modelled as an overall rating factor, no company specific effects would be commented upon.

(d) The main factor of interest would be the effect of the change in premium from last year's premium (renewal or new business) to the current year's premium. Ideally both absolute changes and percentage changes would have been fully investigated, however a data extract containing these two items would have yielded unacceptably detailed information about each insurer's rating tariff. Instead, therefore, only data relating to absolute changes in premium would be supplied.

(e) Other potentially significant factors would be accounted for by inclusion in the retention model. Comment on these factors would not be as detailed as the price sensitivity effects.

(f) The overall level of the previous premium would be included as a rating factor. Because no contributing company wished to disclose confidential rating information, only broad ranges of premiums would be indicated. (Since this factor would be heavily correlated with other rating factors, some care would be needed in interpreting the results.)

(f) Large premium rate changes due to mid-term adjustments would be excluded from the analysis. However smaller adjustments would be included since it was felt that customers might gauge "fairness" by referencing the renewal rate quoted with the previous year's premium, regardless of the change.

(g) Measures of market price competitiveness at the previous and current policy anniversaries were ignored since the measure of competitiveness would vary by type of insurer, and since no company wished to contribute such data.

2.3.3 The data specification for the analysis was defined to maximise the volume of available data whilst ensuring a similar amount of data from each of the contributing insurers. In order to minimise distortions resulting from changes in market competitiveness, only a short period of renewals was considered.

The agreed data specification was:

(a) Private car fully comprehensive insurance for Class 1 or Social, Domestic & Pleasure Use.

(b) Insureds under the age of 75.

(c) Full protected NCD entitlement.

(d) Renewals falling due in the 3rd quarter of 1996.

The protected NCD only restriction was applied in order to simplify the modelling required.

2.3.4 The effect of the recorded factors upon the probability of renewal was investigated by fitting a generalised linear model to the lapse ratio using GLIM. Both a logistic model (i.e. an assumed binomial error with a logit link function) and a simpler multiplicative model (an assumed Poisson error with a log link) were used. The results can be summarised as follows.

(i) *Insurance company*

The scope of the investigation did not allow detailed consideration of company specific effects. However, some working party members did carry out an equivalent analysis of their own data, and although the overall level of lapses did vary between companies (over and above differences resulting from other recorded factors), the results for each factor investigated were broadly similar for all companies.

(ii) *Size of premium*

Four bands of premium size were considered: under £150, £150-300, £300-500, and above £500. The analysis suggested that the higher the premium, the poorer the retention rate. This result held even after allowing for the effect of all other factors in the model. Interestingly, though, there seemed to be little difference in the retention rate between premiums under £150, and premiums in the range £150-300 (both on a one-way basis and also taking into account all other modelled factors).

Since size of premium was heavily correlated with many other factors considered, an alternative model excluding size of premium was also considered. The results of this second model were generally similar. Exceptions are discussed under the relevant factor headings below.

(iii) *Age of rated driver*

As expected the analysis confirmed than older drivers were more loyal than younger drivers. All other factors being equal, the analysis suggested that young drivers are some two and a half times as likely to lapse as older drivers.

(iv) *Age of vehicle*

Age of vehicle also proved to be a very significant factor, with the probability of lapsing increasing more or less monotonically with increasing vehicle age. Two possible contributory factors to this result might be:

- customers opting for non-comp cover as vehicles age
- older vehicles being changed more, perhaps to newer vehicles with free insurance. (Changes in vehicle resulting in large changes in proposed premium were, however, excluded from the analysis.)

(v) *Premium payment frequency*

As expected the data suggested that, all other factors being equal, policies with monthly or quarterly premiums had significantly higher retention rates than policies with premiums paid annually.

(vi) *ABI Vehicle Group*

The analysis suggested that ABI vehicle group was not a particularly descriptive factor, given the other explanatory factors being modelled. However this mainly resulted from the fact that size of premium was also being modelled. When size of premium was removed from the model, vehicle group became a significant factor, with the probability of lapsing increasing with higher vehicle groups.

(vii) *Geographical area*

Data was supplied at a post-code level which enabled one of the contributing insurer's zoning mappings to be used to investigate the effect of geographic insurance area.

Perhaps surprisingly, geographic insurance risk area had little or no predictive power for customer retention (even if size of premium was removed from the model).

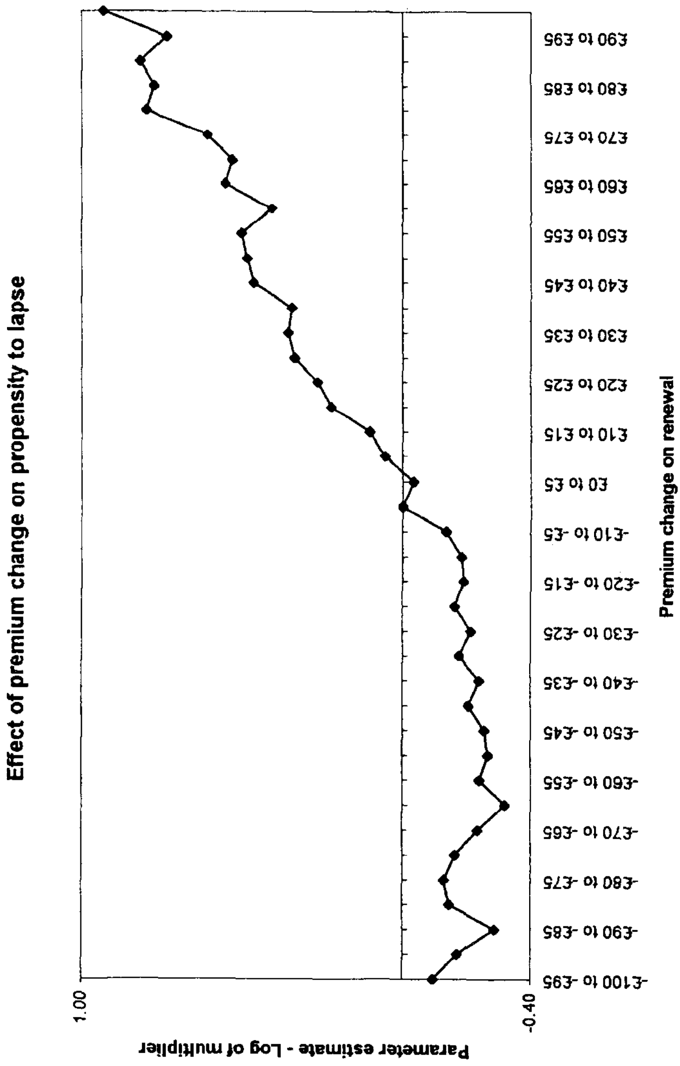
(viii) *Policy age*

As expected the analysis suggested that (all other factors being equal) the older a policy is, the more likely it is to renew. The decrease in lapse rate did, however, appear to reduce a little after the third annual renewal.

(ix) *Number of claims in the previous year*

For protected bonus cases, it was not surprising to find that policyholders who had had claims in the previous year had significantly lower lapse rates than those who had not.

Clearly protected bonus is a likely to be a very important factor in determining renewal rates, although without data for non-protected policies, this effect could not be investigated.


Effect of premium change on propensity to lapse
Parameter estimate - Log of multiplier
1.00
-0.40
Premium change on renewal
-£100 to -£95
-£90 to -£85
-£80 to -£75
-£70 to -£65
-£60 to -£55
-£50 to -£45
-£40 to -£35
-£30 to -£25
-£20 to -£15
-£10 to -£5
£0 to £5
£10 to £15
£20 to £25
£30 to £35
£40 to £45
£50 to £55
£60 to £65
£70 to £75
£80 to £85
£90 to £95

(x) *Price sensitivity / change in premium*

Changes in premium level were grouped into £5 bands with changes of more than £100 being excluded from the analysis. The result for this factor (from the multiplicative Poisson model) is shown in the graph on the previous page, together with approximate parameter estimate standard errors.

From the graph it is clear that:

(a) All other factors being equal, premium increases reduce retention, and the higher the increase the lower the retention rate. Whether the gradient of increased lapse rate against premium increase is sufficiently gentle for an insurer to sacrifice retention for higher profit from increased premiums will depend on market conditions and the insurer's specific book of business.

(b) Small premium reductions of up to around £15 seem to improve retention. Reductions of more than £15 seem to have little additional effect upon retention.

In order to investigate whether percentage change in premium might be a better predictive variable than the absolute premium change, the model was refined to consider the interaction between size of premium and change in premium. This clearly showed that policyholders with higher premiums were less price sensitive to a given monetary change in premium. Without full premium information, it was not possible to investigate fully how appropriate "percentage change" would be as a predictive factor. However, by making broad assumptions about the average premium level within each of the four premium bands it appears that the percentage change in premium would be a considerably better measure of price change for modelling purposes.

2.3.5 Limitations of the data analysis exercise

Before accepting or dismissing the analysis findings it is worth reminding oneself of the limitations of the results, given the design of the experiment. The experiment was *not* a randomised trial. For any given type of policyholder of interest the policyholders were not further segmented into groups with price reductions, groups with no change in premium and groups with price increases. In the dataset analysed, the premium change for a specific policyholder occurred because of a deliberate rating action on behalf of the insurer concerned. The reasons for such changes will have been a combination of some or all of the following:

(i) The insurer's different pricing strategies for new business (last year) and renewal business;

(ii) Changes in the overall level of the insurer's premium rates from last year to this year;

(iii) Changes to the rating factors of a particular customer - even receiving a reduction because the policyholder is one year older.

Despite the limitations of the data analysis, we feel that the exercise has been useful in examining the significant factors affecting retention.

3. Future Distribution

3.1 Changing distribution methods

3.1.1 No sooner has the telemarketing approach pioneered by the likes of Direct Line become an established distribution channel than other changes are following hot on their heels. The main catalyst for future change is undoubtedly the Internet in some form.

3.1.2 The Internet, as it currently stands, has been compared to a CB radio. Many people are greatly attracted by the concept so that when the technology catches up, as it did in the case of the concept of CB radio when mobile phones were launched, the impact will be dramatic. In the following comments the term Internet could refer to the current PC based format, network computers or even interactive television. Because the demand is there, the concept of the Internet will undoubtedly flourish.

3.1.3 The Internet has the potential to bring about revolutionary change in the way that insurance business is conducted. It will:

(a) Greatly increase competition by admitting new entrants to the market and making pricing transparent.

(b) Favour service suppliers with technology and marketing know-how, rather than established companies with traditional skills and cost structures.

(c) Empower the customer who will have direct access to market information and provide the means to execute his own deals.

(d) Significantly reduce the costs of making transactions, even when compared to dealing direct over the telephone.

(e) Undermine the ties of loyalty or inertia that have bound customers to insurers in the past.

3.1.4 Whilst the major banks have reacted by launching on-line retail transactions, insurers response to date has been much more muted. A few companies will offer on-line quotations but on-line sales are practically non-existent. There appear to be three major reasons for this: a great reluctance to offend existing intermediary networks, technical incompatibility of existing IT systems and the fact that only a low volume of sales could currently be made by this medium.

3.2 New entrants to the market

3.2.1 There has been a wide variety of new entrants to the insurance market as a means of developing their existing brands and customer bases. Kwik-fit insurance, the tele-broking arm of the motor parts supplier, is a good example. Other examples are the inclusion by Daewoo, the innovative motor manufacturer, of three years insurance in their sales package, and the sale of home insurance by Homebase. In the life assurance and investments market Marks & Spencer, Direct Line and Virgin have all demonstrated their ability to penetrate new markets.

3.2.2 An even more fundamental change is the expansion of software company Intuit into the provision of on-line financial services. Its on-line insurance site, InsureMarket, allows applicants for life assurance to compare quotes from three separate companies.

3.3 Impacts on the market and actuaries

3.3.1 Many insurers have factors holding back their development: outdated systems, restrictions on development due to key intermediary relationships, weak brands when compared to potential competitors and high existing cost structures. A temptation in this circumstance is to become a supplier of underwriting capacity to third parties. In this instance marketing considerations are likely to constrain severely underwriting flexibility and experience suggests that either the results for the insurer are very poor or the third party will take over the underwriting of the risk. This is not a sustainable long-term position for the underwriter.

3.3.2 An issue for the future is the extent to which the Internet technology gravitates towards push or pull access. If information is "pushed" to a user rather than the users browsing all available data, this gives more emphasis to the control of the service provider and reduces the influence of an individual company. This would remove the direct contact between a customer and the insurer and the situation would be similar to the present arrangement with a broker.

3.3.3 One area in which insurers have a big advantage over other types of service company is in their understanding of their customers. Insurers collect much more information about their customers than almost any other type of company. Ideally a customer based data warehouse should contain marketing, underwriting, policy and claim data for all policies that a customer has purchased or enquired about. This should also include life assurance and investment products. The warehouse can be supplemented by the increasing variety of externally available data. This enables effective marketing and targeting of customers, currently seen as one of the great strengths of the new entrants to the market.

3.3.4 Key skills for the successful implementation of such a project are analytical and statistical skills, a thorough understanding of insurance principles and good knowledge of IT. Although these are not formally the domain of actuaries – there is no IT element to the exams, for example, or any detailed GI product knowledge – it so happens that most actuaries have acquired such skills during the course of their employment.

3.3.5 As a final thought, the issues facing the insurance industry outlined in this paper are obviously not unique. They will have an equally fundamental impact upon many other industries and as such the associated rapid growth of data warehouses and detailed customer analysis must present a huge opportunity for the actuarial profession.