

INSTITUTE AND FACULTY OF ACTUARIES

EXAMINERS' REPORT

April 2020 Examinations

Subject CP3 – Communications Practice

Introduction

The Examiners' Report is written by the Chief Examiner with the aim of helping candidates, both those who are sitting the examination for the first time and using past papers as a revision aid and also those who have previously failed the subject.

The Examiners are charged by Council with examining the published syllabus. The Examiners have access to the Core Reading, which is designed to interpret the syllabus, and will generally base questions around it but are not required to examine the content of Core Reading specifically or exclusively.

For numerical questions the Examiners' preferred approach to the solution is reproduced in this report; other valid approaches are given appropriate credit. For essay-style questions, particularly the open-ended questions in the later subjects, the report may contain more points than the Examiners will expect from a solution that scores full marks.

The report is written based on the legislative and regulatory context pertaining to the date that the examination was set. Candidates should take into account the possibility that circumstances may have changed if using these reports for revision.

Mike Hammer
Chair of the Board of Examiners

July 2020

A. General comments on the *aims of this subject and how it is marked*

Subject CP3 consists of two parts as follows:

1. Written communication (90 marks)

Produce a written piece of communication that explains a scenario typically faced by an actuary in their day to day work. This communication will be aimed at a non-actuary, although the target audience's level of financial knowledge and understanding will vary from question to question.

The communication needs to be of a standard that it would be acceptable as a first draft. It is important that the recipient would both understand the communication and be satisfied with the response. The marking schedules include details of the marks awarded including the necessary content. To the extent that it makes the communication unclear or confusing for the audience, marks may also be lost for including irrelevant content or details that candidates have specifically been asked to exclude from their solution.

2. Reflective questions (10 marks)

A set of questions designed to allow students to consider the approach that they took in their communication and justify certain decisions. For example, students may be asked what information they felt was relevant for this audience, or which terms they specifically excluded because they would constitute jargon.

Students are provided with some background reading a few days before the exam (the Scenario Material) to allow them to familiarise themselves with the scenario without being under exam conditions. Students are expected to read the information provided, but are not required to do any further reading or research around the scenario.

B. Comments on *student performance in this diet of the examination*

Students were asked to draft a press release in response to an article alleging that the pricing practices of the company Insure One Ltd were unfair. The audience for this particular piece of communication is a wide one, and includes policyholders of Insure One and readers of the original article. Students can assume however that the audience has some familiarity with home insurance, having decided to read an article on the topic, and therefore basic explanations of how insurance works are not necessary.

A good answer generally included the following:

- A clear statement that pricing is fair and reasonable, and delivers good value to customers.

- An explanation that the pricing approach reflects the actual experience seen in the past.
- A simple outline of the attempts to remove cross subsidy among different policyholders.
- The adoption of the new pricing approach, led to a reduction in premium for the typical customer.
- That this reduction in premium stemmed from the fact that previously there were a minority of policyholders who were high risk and claimed a lot, and this was being paid for by all policyholders.
- A few key factors that would influence the level of the premiums, with a brief explanation of each one.

It should be noted that the examiners were not expecting students to be able to draft a perfect press release. It is acknowledged that typically insurers will have marketing professionals to ensure that the final style of the document is correct. As with all CP3 exams, students are expected to produce a first draft that contains the key explanations at a level that can be understood by the intended audience. As such, scripts that followed the typical 'introduction – main body – conclusion' style were given as much credit in the mark scheme as students who included all of the key points in an opening paragraph, as might commonly be seen in a press release.

The most common issue seen was including too much unnecessary detail. For example, a detailed explanation of the characteristics of a typical customer, rather than a brief one sentence overview, or an attempt to explain the workings of a generalised linear model. Given the audience, detailed explanations such as this are neither necessary nor likely to be understood.

A couple of additional points that apply to all CP3 examination unless otherwise stated:

- There is no need to produce a covering email to the contact within the company (in the case of this exam it is your manager) who has asked you to draft the communication.
- There is no need to add a word count.
- Students should include only information that has been given in the scenario material or exam paper.

C. Pass Mark

The pass mark for this exam was 55.
1,333 presented themselves and 674 passed.

Example Solution

Below is an example solution which would be considered a pass by the examiners. Note however, that this is not intended to be a perfect solution.

Press release from Insure One

20 April 2020

Home insurance pricing by Insure One

Following an article today in the Daily News, Insure One would like to clarify the way that it prices its business and reassure customers that it always strives to deliver the best value home insurance policies on the market. Insure One believes that its approach to pricing is fair, and it always aims to reduce premiums for customers who have a lower likelihood of claiming.

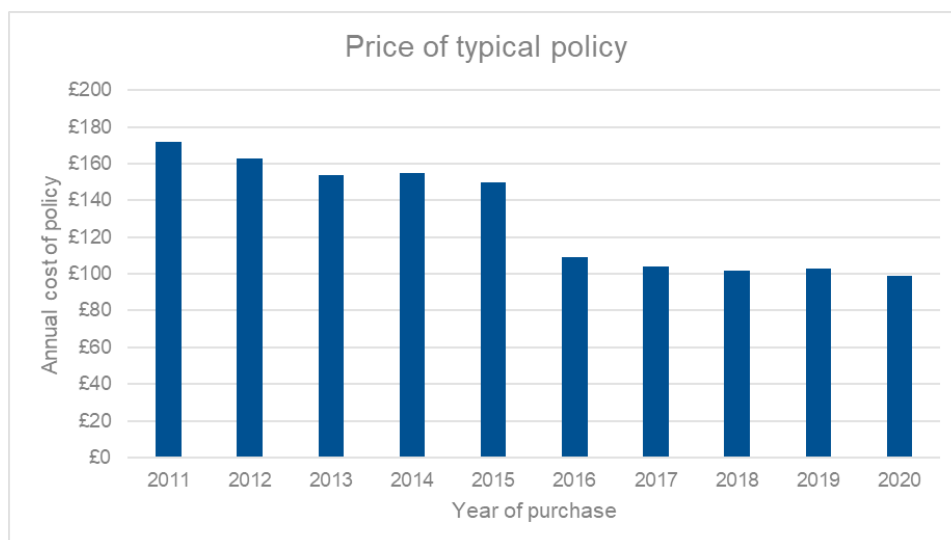
Pricing approach

Insure One aims to charge premiums that reflect the likelihood that a customer will claim, and how much a claim is likely to be. Where our analysis shows that a customer is more likely to claim than the average, we charge a premium that is higher than average to reflect this. Similarly, where a customer is less likely to claim than average, we will charge a lower than average premium. If a claim is likely to result in a high insurance payment, for example because the value of the home or contents is high, then we will charge a higher premium than if we expect to have to make a lower payment.

We aim to minimise instances where customers pay a high premium because they are having to pay for the claims of someone who is much more likely to claim than they are. We believe this represents a fair approach to policyholders because it means we are able to charge the lowest price possible for each type of customer.

The impact on premiums

In 2016 we changed the way we set our premiums. Since then we have looked much more closely at the experience of our customers to identify which customers claim more or less. We realised that there had always been a small group of customers who claimed more, through higher claims or because they claimed more frequently. We took the decision at that time to change our prices to reflect this, and since then we have charged that type of customer much more. This allowed us to reduce the premiums for the majority of customers who our analysis shows claim less frequently, or claim lower amounts. The following chart shows the annual premium for a typical policyholder who is middle aged, has a house worth £150,000, contents worth £40,000, and is married.



We have been steadily improving our prices over time, but it is clear from the chart that there was a large reduction for the typical customer in 2016 due to our new pricing approach. We therefore believe that updating our pricing to take account of the trends that we have seen in past years is delivering better value, and benefits the majority of our customers.

Characteristics that affect the price

Many characteristics affect the price that One Insure charges for home insurance. Other than the value of someone's property (unsurprisingly it costs more to cover a house worth £1million than to cover a house worth £100,000), the location of the property has the biggest impact on the cost of insurance. We have observed in our data that customers in some areas claim a lot more than customers in others, and so we reflect that in the price we charge. This is driven by factors such as crime rates in certain areas leading to a higher risk of burglary, or areas near some rivers having a high risk of flooding.

Other characteristics, such as the marital status or occupation of the customer have also been shown to affect how likely they are to claim. We see this difference very clearly when looking at the claims paid in previous years. We therefore believe that it is fair to customers to reflect this in the price we charge so that those who are less likely to claim will be charged less.

Conclusion

Insure One charges customers a premium which is reflective of how likely they are to make a claim on their home insurance policy, and how much that claim is likely to be. We look at our own experience of customers claiming to judge who are more likely to make a claim, and use this information to produce adjustments to premiums based on different characteristics of different customers. By doing this we aim to charge all customers a fair premium that is as low as possible. Using this approach led to a significant fall in the cost of premiums for a typical customer.

For further information please contact the Insure One press team at info@oneinsure.com

Question 2

- a) The audience for this press release is very broad – it could include any member of the public. Readers of the Daily News will read it, but other papers whose style and readership is quite different may pick up the press release. The basic principle is that it should be simple enough to be understood by the least sophisticated reader, but it should contain a full answer so as to satisfy more sophisticated readers.

The following things were important to ensure the press release would be well received by this diverse audience:

- The language must be kept simple so that it is understandable to the least sophisticated reader. There should be absolutely no jargon, and the general language used should be as basic as possible.
 - The concepts must be explained assuming no detailed financial knowledge, though it would be reasonable to expect the audience to be familiar with the product and the motivations for wanting to buy home insurance.
 - Using examples rather than theoretical arguments to justify the approach helps the audience to understand. For example, rather than just stating that the data shows that the area someone lives in has a big impact on their likelihood of claim, giving examples, such as how likely a certain area is to flood, helps readers understand why this might be.
- b) Include a lot more detail outlining the different factors that are used in pricing and how statistically significant each one is.

Include the commercial considerations of using the pricing factors, such as the fact that accurately pricing risk gives a competitive edge over other insurers.

Make the document less repetitive and assume more knowledge. The press release had to explain things assuming no specialist insurance knowledge and repeat points in different ways to get the point across. The board will have a much greater level of understanding.

The writing style would be less focussed on justifying the fairness of the premiums – the press release is trying to reassure potential customers that the product is good value. The board would expect a more objective summary of the facts.

- c) I did not include anything about Generalised Linear Models – this is far too technical for the audience and would only confuse them.

I did not include the factors that were not significant and therefore were not used in pricing, such as whether a policyholder has an open fire or wood burning stove.

Mark Scheme

Q1

FORMAT

Document Format (up to 3 marks)

| | |
|---|-----|
| Clear succinct title | (1) |
| Title makes clear reference to name of company (Insure One) | (1) |
| Date | (1) |

Planning and presentation (Up to 12 marks)

-Grouping of ideas

Document is grouped into an appropriate number of sections (excluding introduction and summary)

| | |
|-----------------|-----|
| 3-5 sections | (2) |
| 2 or 6 sections | (1) |
| Otherwise | (0) |

-Logical order of points.

Logical order between sections. When awarding marks here, consider the overall heading and purpose of the section rather than the content within it. If read once and clear then 2 marks, if needed to re-read parts then 1 mark, otherwise 0 marks. (2)

Logical order of points within each section. When awarding marks here consider the order of points within each section. If read once and clear then 3 marks, if one section needed to be re-read then 2–1 marks, otherwise 0 marks. (3)

Points within each section are directly relevant to the heading. (1)

Appropriate short headings on each section (2)
Give 2 marks if all headings are short and appropriate, 1 mark if only one heading is long or doesn't succinctly describe what follows, and 0 marks if more than one heading is long or doesn't succinctly describe what follows.

Sentences kept brief (2)
Award 2 marks if there are no overly long sentences. Award 1 mark if there is one overly long sentence. If more than one overly long sentence, award 0 marks. The principle is that a sentence containing more than one message or too many sub-clauses is too long. Or, if spoken, needs repeated breaks to articulate.

Format of visual aids (Up to 5 marks)

Graphs / tables

Three marks for an effective visual aid which supports the message that the press release is trying to convey. Charts should be of an appropriate type for the data being communicated, and should have labelled axes and a clear title. Tables should be clearly laid out and easy to read. (3)

The best visual aid should be marked for this purpose

Add two additional marks if the press release includes a clear chart showing the progression of prices over time, highlighting the clear reduction of price for a typical policyholder in 2016. (2)

[Total 20]

LANGUAGE

Overall language (Up to 7 marks)

Language used is simple and will be easily understood by the reader

Award:

5 marks if the document is understandable as a whole

4–3 marks if up to two points need to be redrafted

2–1 marks if three to four points or one section needs to be redrafted

0 marks if more than four points or more than one section needs to be redrafted (5)

Professional tone avoid comments which “talk down” to the reader or comments which are derogatory about the original article (1)

Avoid colloquialisms, informal and/or emotive language (1)

Jargon and terminology (Up to 12 marks)

Absence of technical terms. Award 6 marks if there are no terms present which are too technical for the recipient. Award 4 marks if there is one unexplained technical term. If there are two or three unexplained terms award 2 marks. For more than three unexplained terms, award 0 marks. A list of jargon terms is supplied below which is not necessarily exhaustive but includes unnecessary technical terms where a simpler term exists and terms and/or abbreviations which may be acceptable unless their meaning is not clearly explained. (6)

Absence of irrelevant points of content. Award 6 marks if no irrelevancies, award 4 marks if one irrelevant point, 2 mark if two irrelevant points. If more than two irrelevant points award 0 marks. (6)

Examples of possible irrelevant points (not an exhaustive list):

- An explanation of factors that were not included in the final pricing calculation (e.g. Open fire or wood burning stove)
- An explanation of the generalised linear model that is used to calculate prices
- Mention of the statistical tests that go into deciding if something is a significant factor or not
- Confirmation that security measures were not shown to be significant but are used to vary premiums anyway because this is what policyholders would expect
- Explanation of how insurance works – premiums are paid, insurer pays claims etc.

Grammar, spelling and punctuation (Up to 3 marks)

Award 3 marks if no significant grammatical, spelling or punctuation errors, 2 marks if one error, 1 mark if two errors. Award 0 marks if more than two errors.

Each “error” should be significant enough to compromise the professionalism of the document or require sections to be redrafted and minor errors can be ignored (though many minor that would take time to remedy should be penalised). (3)

[Total 22]

CONTENT

Marks shown are to be awarded for each item of content identified in the candidate's answer. To be credited with the mark(s) the point needs to be clear and understandable. However, points that require only minor adjustment should be credited.

Markers should use discretion when there is more than one mark for a point, awarding part marks to reflect the level of clarity.

Markers should also use their discretion when considering clarity to ensure that, for example, candidates who cover most of the content items, but not very clearly, are still given some credit, rather than penalised for every point made.

1. Introduction / executive summary / conclusion

It is acknowledged that students may take different approaches to drafting a press release. Actual press releases tend to put the key points up front to get the message across quickly, rather than having an intro / body / conclusion structure. However, this exam is not intended to be a test of whether students can draft a press release in the style a marketing or PR professional might, but rather can they explain the key concepts to the audience. Therefore, the following points should be credited whether they appear in an opening paragraph, an introduction and/or conclusion, or an executive summary.

Mention the article in the Daily (1)

- One Insure delivers good value to customers (1)
- Pricing is fair / aim is to charge a fair premium (2)
- Premium is based on how likely you are to claim (1)
- and how much that claim is likely to be (1)
- Use own experience to assess which characteristics affect likelihood of claiming (2)
- Using this pricing method has led to a reduction in premiums for the typical customer (1)
- Include a sign-off with contact details should the reader have further questions (1)

2. Pricing approach

- Explanation of the link between the policyholder likelihood to claim and the cost of insurance (2)
- Explanation of the link between the likely size of the policyholder's claim and the cost of insurance (2)
- Explanation (that the reader could follow) that the pricing aims to reduce cross subsidy between policyholder who claim more or less (4)
- Reiteration that this is considered a fair approach (as article's main premise was that the pricing practice is unfair). (2)

3. Impact on premium

- Use past data to set future premiums (2)
- Small number of policyholders with very high claims (2)
- Explanation of what is meant by a typical customer (should include the main characteristics, but not be too detailed) (3)
- Prices improving over time (1)
- Big improvement in price for typical policyholder in 2016 when new pricing introduced (2)

4. What affects the price

- Value of home and/or contents directly affects premium (1)
- Analysis of past claims used to estimate likely level of future claims (1)
- Location is biggest factor (2)
- Mention other major factors that affect price – Occupation (1)
- and marital status (1)

Justification should be given for the use of factors to differentiate the price. (4)

This could be either done in one of the following ways (credit only the best one if both are present):

| | |
|---|--|
| <p><i>a.) An example showing why the risk differs because of the factor (e.g. building on a flood plain)</i> <i>Example should be logical and easily understood, and relevant to the actual factors used</i></p> | <p><i>b.) An analysis of the actual claims paid in the past has indicated that policyholders with different characteristics present different risks. This should be well explained, and to gain full marks should give a numerical example of the impact (e.g. customers with this trait are X%)</i></p> |
|---|--|

| | |
|--|---|
| | <i>more likely to claim than customers with this other trait)</i> |
|--|---|

[Total 40]

MEETING OF OBJECTIVES

The press release should be aimed at the least sophisticated reader. This will be someone with some interest in the topic, but with only basic knowledge of insurance. The basic working of insurance (payment of premiums by the policyholder and claims by the insurer etc. can be assumed)

6-8 marks if:

Reader is likely to be completely satisfied and reassured that the pricing is fair.

The communication is clear and easy to read, and flows throughout to a suitable conclusion.

It looks organised and neat and uses an appropriate tone, leaving a positive impression. There are no statements that paint the company in a bad light.

3-5 marks if:

The reader is only partially satisfied and reassured.

The answer is partially understandable but the answer does not flow well. There are no more than 2 visual errors or anomalies in the response. There are some technical terms/ abbreviations that are undefined. There may a statement that would be unsuitable from the point of view of the company's professional or commercial image.

0-2 marks if:

The reader is left with a poor impression of the company, is confused by the answer and/or does not trust the answer.

For example, disjointed response, inconsistent formatting and tone is inappropriate.

[Total 8]

[Total Q1 90]

Q2

REFLECTIVE

a) Describe how you adapted your writing to allow for the varied audience that will read the press release?

Should ensure the press release is simple enough to be understood by the least sophisticated reader (1)

Must be comprehensive enough to ensure all readers are satisfied by the answer (1)

Language should be as simple as possible with no jargon (1)

Explanation of the concepts should assume only a basic level of financial knowledge / understanding of insurance / customers perspective of insurance (1)

Examples should be used to help illustrate the points (e.g. an example of why a factor might change the expected claims cost, or an example of past experience showing that claims cost varies by policyholder characteristics. (1)

[Max 4]

b) Explain how your writing style, and the content covered, would have changed if you were asked to draft a letter to Insure One's board outlining the pricing team's position on the same topic.

Include commercial considerations

Assume more background knowledge

More detail on the factors and the support for using them

Succinct

Potentially more formal

More complex language

Less focussed on defending the fairness of the premiums

[Max 4]

c) Identify two pieces of information from the scenario material that you did not include in the press release. For each, explain why you decided to exclude it.

Nothing about GLMs – the audience are not likely to understand what a generalised linear model is and it would confuse them to include it.

Factors not significant / or not used

[Max 2]

NOTE: alternative points will be credited where appropriate but must relate to the actual answer written by each candidate.

[Total Q2 10]

| Jargon | Possible jargon |
|-----------------------------|----------------------|
| GLM | Factor |
| Statistically significant | Socio-economic group |
| P-Value | Model |
| Granular | Cross subsidy |
| Fitting a model | Cost of claims |
| Mapping | Input / output |
| Beta / alpha coefficient | |
| Risk profile | |
| Claims trends | |
| Statistical tests | |
| Occupational discrimination | |
| Information asymmetry | |
| Differential pricing | |
| Coefficients | |
| Median / mean / mode | |
| Intercept | |
| Variables | |

[Paper Total 100]

END OF EXAMINERS' REPORT