BLUE OCEAN STRATEGIES
IN TECHNOLOGY FOR BUSINESS ACQUISITION
BY THE LIFE INSURANCE INDUSTRY

A DELPHI STUDY
SPONSORED BY THE FUTURISM, TECHNOLOGY, AND MARKETING & DISTRIBUTIONS SECTIONS OF THE SOCIETY OF ACTUARIES

As Reported By
Society of Actuaries Blue Ocean Strategies Working Group

February 27, 2009

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I. Executive Summary

Industries evolve over time. In some instances, they evolve very quickly and there are numerous examples where technology has been the cause. Personal music players have changed from the "Walkman" to MP3 players. Slide rules have been displaced by the hand calculator. In life insurance, advances in computer technology have led to the ability to design, price, and administer new and more sophisticated types of insurance such as Universal Life.

When such a shift takes place, a business cannot survive simply by improving what it has always done previously. It must adapt to the new paradigm. An opportunity to remake an industry is one type of "Blue Ocean Strategy".

Our Working Group was formed to gather expert opinions as to whether there were any such "Blue Ocean Strategies" that could foreseeably affect the life insurance industry over the next 10 years. To accomplish this task, the Working Group queried a group of experienced practitioners from the industry for their thoughts on this topic utilizing the Delphi method. In applying this futurism technique, multiple rounds of surveys (consisting of open-ended questions) were conducted. In total, 43 experts participated in the three round Delphi study process and provided responses to the survey questions. Consistent with the Delphi technique, after each round the Working Group analyzed and summarized results so that questions for subsequent rounds were based on the responses from the prior round and prior results were shared with the respondents.

The study asked panelists to look to the future and describe “Blue Ocean” opportunities – and the strategies constructed from their Round One responses were, by-and-large, things that life insurance companies are not doing today.

By far the most common technology cited and used by panelists in suggestions was the internet. The future development of online databases and medical diagnostics were also mentioned. For the most part, the ideas suggested by the panelists (and synthesized by the Working Group) were business innovations based on either current technology or linear extensions of current technology rather than radical technology changes.

Two obstacles were most often mentioned as being in the way of any attempt to adopt a “Blue Ocean” strategy in the life insurance industry. These were the regulation of insurance and resistance to change within the industry itself.

As a result of panelists’ feedback in Round One, ten possible strategies were identified. They were as follows:

- Strategy #1: Earth Friendly Insurance Company – “Paperless Processing”
- Strategy #2: Super Fast Insurance Company – “Quantum leap in time to market”
- Strategy #3: Insurance Without Borders Company – “Global internet sales where regulations allow”

- Strategy #4: Global Insurance Company – "Global data mining, marketing"
- Strategy #5: Your Way Insurance Company – "Prospects custom-design coverage online"
- Strategy #6: Strategic Partners Insurance Company – "For Operational Excellence"
- Strategy #7: Just What You Want Insurance Company – "Micro-policies"
- Strategy #8: Holistic Insurance Company – "Risk 'agents' help mitigate all risks"
- Strategy #9: Big Brother Insurance Company – "Monitor individuals' health, risk profile"
- Strategy #10: Virtually Real Insurance Company – "Virtual World Insurance"

Over the next two rounds, panelists were asked specific questions regarding the viability of each strategy.

Drawing upon a summary from one of our respondents, the 10 strategies can be grouped into three themes:

- Greater efficiency in marketing and underwriting traditional business. These should be pursued, but they are not Blue Ocean strategies.
- Micro approach to insuring [currently] undesirable risks. These are "Blue Ocean" because they create a viable approach to insuring a set of risks others run away from.
- Holistic approach to risk financing and mitigation. These are "Blue Ocean" because they open up a whole set of risks not previously insured and encompass an integrated approach that no one is implementing.

Of the ten strategies, the respondents thought the following three were the most promising:

Strategy #1: Earth Friendly Insurance Company – "Paperless Processing"

Earth Friendly Insurance Company plans to adopt a "Blue Ocean" strategy called: "Paperless processing: do it all on-line!" "Part 1" of this strategy is to use technologies and processes that do away with paper applications, which may include the pre-population of some information about the applicant from internal or external sources. Information will be obtained through the internet or all-in-one communication devices either directly from the applicant or a field agent. Policy approval and an option to print coverage verification will be directed back by similar routes.

Earth Friendly also foresees a "part 2" of this strategy: the use of a "Touch the Screen" system in which the applicant would touch the computer/lap top screen and the finger print would automatically pull all medical files and other life style data. One slight prick of blood, similar to that used by diabetics for blood sugar testing, would provide immediate analysis of all physical conditions, which would be fed through the computer at the same time as the one-touch activity.

Strategy #7: Just What You Want Insurance Company – "Micro-policies"

Just What You Want Insurance Company believes that there may be an emerging opportunity for a "Blue Ocean" strategy around offering "micro-policies." These products cover narrow risks, at targeted periods, for specific consumers, at highly specialized prices. Sophisticated – often diverse – technologies are frequently required to enable distribution, segment markets, price risk, and issue coverage. Although these policies have the potential to replace broader "blanket" coverages, the greater potential is to open markets for risks otherwise uninsurable. For example, life insurance for a bungee jumper could be sold to cover the specific event.

Strategy #8: Holistic Insurance Company – "Risk agents" help mitigate all risks

Its market research leads Holistic Insurance Company to believe that there is a need for customers to have their risks analyzed and mitigated "holistically". It recognizes that there may be interactions between life, health, property, and other risks that affect the underwriting, amount, and type of insurance needed to cover those risks. It has also identified certain risks that are not typically covered well, such as parents living longer or children needing to be supported longer than anticipated, and family dissolution.

The chief distribution officer has recommended that the company recruit and train special "risk agents" who would work closely with customers to analyze their entire risk profile and customize products accordingly.

Besides tailoring the insurance products to their overall situation, the "risk agent" could offer the additional service of direct risk mitigation and not just mitigation of the financial consequences of those risks.

Detailed commentary on all of the strategies, these three and the other seven, is contained in the subsequent sections of this report and Appendices. The Summary and Additional Considerations (Section X) provides some observations about the effectiveness of the study methodology.

II. Introduction to the Project

In China, the term for actuary is 精算师, or Master of Accurate Calculations. Actuaries are great at calculations. Like the character, ***The Count***, on the children's television show Sesame Street, we like to quantify everything – especially measures of risk. Our profession prides itself in measuring risk and creating products and solutions to mediate it ("Risk is Opportunity"). We develop and employ complex, mathematically sophisticated models that project our best estimates of mortality, morbidity, investment returns, expenses, and dozens of other assumptions, as well as how they are apt to interact with each other in future years. Then, not content with a single set of most likely assumptions, we vary them in many statistically probable ways and create stochastic models that consider CTEs (Conditional Tail Expectations) to any desired degree of precision.

Alas, in some respects it is mathematical self-delusion.

> "No sensible decision can be made any longer without taking into account not only the world as it is, but the world as it will be." – Isaac Asimov

History has shown repeatedly that the greater opportunity (or loss) comes not from a statistical trend analysis of the known experience; but from the ability (or failure) to recognize and quickly embrace the unexpected impact of an external influence. As a very simple example, think of the Pickett and Post companies. They were giants and rivals in the slide rule market. They could do all of the trend analysis models they wanted (to three significant digits); but they couldn't see the impact of the electronic hand held calculators. Likewise, the Swiss watch industry actually had the first opportunity to embrace the idea of electronic watches, yet declined to act on making them and lost a centuries-old domination of the watch market to Japanese and other watch companies.

There are many more examples of companies failing to foresee and adjust to new ideas and/or external influences. It is easy to reflect upon how blind the established industry was to the innovation that brought about their demise – or at least a major upheaval and realignment of competitive advantages.

The Futurism Section (which has applied to be renamed The Forecasting and Futurism Section) tries to augment actuarial quantitative expertise, as Masters of Accurate Calculations, with qualitative perspectives that look beyond numbers and sometimes lead to more significant insights into the future, and how it might impact our profitability models and, indeed, even our civilization.

A useful tool in the arsenal of futurism techniques is the Delphi study. This is named after the famous Oracle of Delphi, who was said to have had the ability to predict the future. A Delphi study involves multiple rounds of questions to participants who respond directly to the study facilitators. After each round, the participants get to see the responses from other participants on an anonymous basis. The idea here is to encourage collaboration along with creative and candid responses. Rounds are continued until there is a stabilization of responses. The responses do not have to agree – no consensus opinion is necessary. However, the participants need to have reached a point where their own responses have stopped varying based on their inspection of other participant responses.

The Futurism Section, joined by the Technology Section and the Marketing and Distribution Section, initiated a Delphi study named "Blue Ocean Strategies in Technology for Business Acquisition by the Life Insurance Industry," to identify and debate possible new approaches to acquiring business by life insurers. The Blue Ocean Strategy concept comes from the book, ***Blue Ocean Strategy***, by W. Chan Kim and Renée Mauborgne.

A prime example of a Blue Ocean Strategy in action is the ***Cirque du Soleil***, which reinvented the century-old notion of the circus with a model that included eliminating animal acts and decreasing the expenses associated with named star performers, and turned a stagnant business model into a huge success. In one sense, it was the electronic calculator in competition with the slide rule.

In this study, a panel of life insurance and other financial professionals from across the country were asked to answer questions about "Blue Ocean Strategies", limited to the extent possible to those involving technology for business acquisition, and to the life insurance industry. Responses were summarized, strategies were synthesized and the results were returned to the panelists with follow-up questions. These strategies and questions were designed to stimulate further thought, and to lead towards a possible stabilization of the panelist opinions. Three rounds of panel surveys were performed over a period of about a year. The results are a creative compendium of insightful ideas – the qualitative side of actuarial forecasting.

This report is a summary of the project. A summary of merely the results would be difficult, incomplete, and tunnel-visioned in the very manner that the sponsors/authors were seeking to avoid. Section I provides an executive summary – more a taste of the results than anything approaching a complete listing of the results. Sections III and IV of the report provide additional backgrounds on the meaning of a Blue Ocean Strategy and the process of a Delphi Study, respectively. Section V acknowledges the contributors to the study and defines the use of certain terms. Section VI provides a description of the approach and timetable followed in this Delphi Study of Blue Ocean Strategies.

Brief recaps of the responses to each of the Rounds One, Two, and Three questions are provided in Sections VII, VIII, and IX, respectively, but to get a more complete appreciation for the wealth of information and ideas provided by the participating panel, the reader is advised to review the appendices.

Finally, Section X summarizes some thoughts regarding the study methodology, and highlights some areas of success and some areas where there might be room for improvement.

III. Background on the Blue Ocean Strategy

A "Blue Ocean Strategy" has come to mean a strategy that allows for a vast open blue area of undiscovered and, consequently, unexplored and unoccupied, territory. It means finding a completely new approach to an existing concept, approaching a market from an entirely new direction. The concept is explored in a book, ***Blue Ocean Strategy***, by W. Chan Kim and Renée Mauborgne, which was based on a decade-long study of 150 strategic moves spanning more than 30 industries over 100 years (1880 - 2000). This well-received book has led to a business that includes a research institute and a consulting network working with businesses and governments to create Blue Ocean Strategies. Further details are available at the official web site, www.blueoceanstrategy.com.

Wikipedia contains a summary, analysis, and critique of the Blue Ocean Strategy concept, including the following excerpt:

"Some examples of companies that may have created new market spaces in the opinion of Kim and Mauborgne include:

- Cirque du Soleil: Blending of opera and ballet with circus format while eliminating star performer and animals;
- Netjets: fractional jet ownership;
- Southwest Airlines: offering flexibility of bus travel at the speed of air travel using secondary airports;
- Curves: redefining market boundaries between health clubs and home exercise programs for women;
- Home Depot: offering the prices and range of lumberyard, while offering consumers classes to help them with DIY projects…"

In spite of the fact that the insurance industry has been insuring life, health, property, and commerce (including commerce on the blue oceans) for centuries, finding an example of a Blue Ocean Strategy successfully applied to the insurance industry is not a trivial task. It is not always clear that an innovation is indeed "Blue Ocean". An innovation may be a welcome improvement to a company and/or to a consumer group, it may provide a temporary competitive advantage to the innovator, and it may provide a major boost to a new (or existing) market, but the innovation may still not be truly "Blue Ocean". Examples of innovation from the insurance industry might include welcomed improvements such as targeted and/or broader marketing (*e g.*, worksite marketing, direct response), temporary advantages such as those enjoyed by early entrants to a market (*e g.*, the term life insurance market, the variable market), or new markets (*e g.*, critical illness insurance, pet insurance). However, with the advantage of hindsight, it is clear that these innovations have not remarkably changed the industry, or resulted in anything like the replacement of the technicians' columnar pads with laptop computers.

IV. Background on the Delphi Study

The study of an empty area, an area where little or no information or data is available to study, is an interesting concept. The sponsors of this project suggest that the list of Blue Ocean Strategies that have been successfully introduced into the life insurance industry qualified as one of these empty areas.

A number of approaches have been used to address how to study these areas. One of the most widely used is the Delphi method, described in *Wikipedia* as follows:

> "The **Delphi method** is a systematic, interactive forecasting method which relies on a panel of independent experts. The carefully selected experts answer questionnaires in two or more rounds. After each round, a facilitator provides an anonymous summary of the experts' forecasts from the previous round as well as the reasons they provided for their judgments. Thus, participants are encouraged to revise their earlier answers in light of the replies of other members of the group. It is believed that during this process the range of the answers will decrease and the group will converge towards the "correct" answer. Finally, the process is stopped after a pre-defined stop criterion (*e g*., number of rounds, achievement of consensus, stability of results) and the mean or median scores of the final rounds determine the results."

Note that, by its very definition, a Blue Ocean Strategy is not likely to generate anything even approaching a mean or median score, which makes this a somewhat unusual topic to be subjected to a Delphi Study. Paradoxically, a frequent side benefit of the method is the lack of complete consensus among the responding panelists – even after consultation. In this study panelists retained very different views about which scenarios will play out, and much can be learned from the reasons given for those differing views.

Finally, there is an important consideration for the user of this Report, as described in the Society of Actuaries publication (available at www.soa.org) entitled *"A Study of the Use of the Delphi Method, A Futures Research Technique for Forecasting Selected U.S. Economic Variables and Determining Rationales for Judgments."*

> "Because the number of participants is usually small, Delphi studies do not (and are not intended to) produce statistically significant results. In other words the results provided by any panel do not predict the response of a larger population or even a different Delphi panel. The estimates and the rationale, techniques and methods for estimating the variables represent the synthesis of opinion of the particular group involved, no more, no less."

V. Acknowledgments and Terminology

The management team for this study is referred to as the Project Oversight Group (the "POG"). It provided overall direction and selected the panel of Delphi participants. The POG also served on the Working Group that reviewed and processed the responses of the panel, as described in Section VI. Research support was provided by the staff of the Society of Actuaries, whose members were also part of the Working Group. No outside researcher was hired for the study.

Serving on the POG and Working Group were six members of the Society of Actuaries: Ben H Wolzenski (Chair), Raza A. Zaidi, David L. Snell, Carl J. Nauman, Jeffrey C. Harper, and Van Beach. Serving on the Working Group and providing research support were Ronora E. Stryker, ASA and Research Actuary; Jan Schuh, Research Administrator; and Claire Bilodeau, ASA and Visiting Research Actuary, all of the Society of Actuaries staff.

Those who were invited to respond to the Delphi study questions are referred to in this report as "panelists", "respondents", and "participants"; all three terms refer to the same group of individuals who agreed to participate and did in fact respond in at least one round of the study. These individuals included actuaries and non-actuaries, individuals employed in the life insurance industry, consultants engaged by the industry, and individuals employed by non-insurance firms involved in technology, marketing and sales. The substance of the study was derived from the thoughtful, diverse and prolific responses of these individuals, whose names are listed in Appendix G and to whom the Working Group offers our sincere thanks and appreciation.

The Delphi study consisted of three rounds, or sets of information and questions sent to panelists together with their responses. These are simply referred to as Round One (or Round 1), Round Two (or Round 2) and Round Three (or Round 3) of the study.

VI. Description of the Approach and Time Line

A Delphi Study can take a surprisingly long time to complete – from twelve months up to twenty-four or even thirty months is not extraordinary. A study generally entails a small number of rounds in which a panel of experts on the topic under study is surveyed – two to four is common. Also, continuity in the participating panel is preferred, if not always possible. This study covered 14 calendar months from the mailing of the Round One questions to the receipt of the Round Three responses, plus nearly 3 months more to compose and publish this report. The study consisted of three rounds of questions, all directed to a group of 46 panelists who expressed interest and 43 of whom did in fact participate in at least one round. The project enjoyed extremely high participation for Round One, high participation for Round Two, and dwindling participation and new material in Round Three.

An advantage to a Delphi Study is that this technique, if used effectively, can be highly efficient and generate new knowledge. On the other hand, this technique is not easy to execute or manage. A frequent complicating situation is the lack of complete consensus – even after consultation. Another situation arises when an area of study has been defined too narrowly, resulting in nothing particularly new; or an area has been defined too broadly, resulting in seemingly incoherent (or at least disjointed) responses, making it too difficult to coalesce them into a single numerical result or even a single theme, let alone a true strategy. Others include the continuation of the study participants from round to round, who are by definition in demand in their own professions and positions; the changing environment (technology, economics, politics, *etc*.); and the inherent lack of a concrete knowledge base.

With these concerns in mind, the POG was organized in the summer of 2007 and proceeded to recruit participants from a variety of professions and business affiliations, realizing that consensus among the panelists was unlikely.

The approach and time line can be briefly described as follows:

- May and June 2007. Interest in participation in a POG that would also become part of the Working Group was sought within the membership of the Society of Actuaries from three practice areas with expertise in the topic: Futurism, Marketing and Distribution, and Technology.

- July 2007. The initial conference among the POG and the Research Support Staff at the Society of Actuaries was convened, the Working Group was activated, and the project was initiated.

- August 2007. Development of initial survey questions and scoping of the project by the Working Group was begun, including addressing such issues as the following:
  - What is this research project about?

- Why is this research project being undertaken?
- What is the research methodology?
- What do participants need to do?
- How and to whom will the results be disseminated?
- What are the questions for the first round of the study?

- September 2007. A list of potential candidates for the Delphi panel was assembled by the POG (resulting in approximately 65 candidates).

- October 2007. Candidates were contacted and accept/decline of interest in participation was noted; a total of 46 individuals expressed willingness to participate, and 43 of the 46 actually did respond in at least one round. Round One survey questions were distributed to the panel.

- October and November 2007. Responses from the panel to Round One survey questions were received and consolidated by Research Support. (Note that one important aspect of a Delphi Study is anonymity – the only indication of the respondent ever relayed to the POG was a respondent number, and then only so that responses to the various questions by an anonymous panelist could be linked if desirable.)

- December 2007. Responses to Round One questions were reviewed by the Working Group (with an element of "divide and conquer", due to the voluminous response: over 70 pages of survey question response from 39 respondents), and various possible approaches to Round Two were discussed.

- January 2008. An approach to Round Two was developed that met the conflicting goals of (i) simplifying the large amount of information into something approachable by the panelists, but (ii) retaining as much as possible of the new ideas generated by the panelists in Round One. The synthesis of the responses into a few discrete strategies was begun by the Working Group, and a status report was sent to the participating panel.

- February 2008. Development of ten strategies for discussion in Round Two was undertaken by the Working Group.

- March 2008. Development of the Round Two survey questions was undertaken by the Working Group.

- April 2008. The Round Two survey questionnaire was distributed to the panel.

- May and June 2008. Responses from the Delphi panel to Round Two were received and consolidated by Research Support.

- July and August 2008. Responses to Round Two were reviewed by the Working Group (again with an element of “divide and conquer, due to the voluminous response: over 62 pages of survey question response from 28 respondents – 4 of whom had not responded in Round One).

- September 2008. Approaches to Round Three were discussed, and a survey question format was developed.

- October 2008. Survey questions were developed for Round Three; the Round Three survey was distributed to the panel.

- November 2008. Responses from the Delphi panel to Round Three were received from 16 panelists and consolidated by Research Support. (Late responses in December and early January were also accepted.)

- December 2008. Responses to Round Three were reviewed by the Working Group, and drafting of this report was begun. (Note that the level and detail of response to the questions proposed in Round Three is much reduced. Most panelists were not sufficiently influenced by the Round Two results to change many of their opinions. This is one manner of closure for a Delphi Study.)

- February 2009. This Report was finalized and issued

The following three sections of this report address the approach and results from Rounds One through Three. Section VII addresses Round One of the Delphi Study in some detail, Section VIII addresses Round Two, and Section IX addresses Round Three. Other aspects of the project are addressed in two sections of this report. The Executive Summary (Section I) provides a stand-alone, brief summary, and Summary and Additional Considerations (Section X) provides commentary on the effectiveness of the methodology. The full text of the Surveys and Responses from all three Rounds are included as Appendices A through F. Finally, the names of the Delphi panelists are included as Appendix G.

VII. Recap of Round One – the Mixing Bowl for the Project

The approach developed by the Working Group for the Round One survey was a series of ten questions oriented to “possible current and future technologies and new strategies in business acquisition for the life insurance industry enabled by these technologies”. The questions posed were open-ended, inviting narrative responses. (For example, Question #2: What possible current or future technology could enable the life insurance industry to adopt a “Blue Ocean Strategy” in how it distributes its products and what is the resulting “Blue Ocean Strategy”?**)** Some suggestions and guidance were provided in the survey instructions, but the only constraint was to assume that the technologies and strategies could occur in the next ten years. A copy of the specific questions included in Round One is attached as Appendix A.

Reponses were received from 39 of the 46 selected panelists. The open-ended nature of the questions produced a substantial volume and great variety of responses; no two responses to any question were the same, and the replies covered over 70 pages after consolidation by Research Support. The Working Group constructed a Detailed Summary of Round One Responses, which is included as Appendix B-1. The complete text of all responses is attached as Appendix B-2. While much of the material in these responses is of general interest to the Working Group, and likely of interest as well to the anticipated user of this Report, condensing the material into a few key points is not possible. The reader is advised to peruse the summary in Appendix B-1 and/or the responses in Appendix B-2, perhaps emphasizing areas where the question is an indicator of likely responses of interest (the questions are repeated in Appendices B-1 and B-2 for ease of orientation).

Given the great diversity of responses, the Working Group felt that the best approach to Round Two would be to synthesize the results of the Round One survey into some finite number of “strategies”, and submit those strategies to the participating panelists. Ten was selected as a reasonable number of “strategies”, and the Working Group then constructed ten “Blue Ocean Strategies”, incorporating as much as possible from responses of all of the panelists. The Detailed Summary of Round One Responses and the Round Two Survey containing the ten strategies were presented to the participating panelists, along with a series of questions on each. It was felt that providing the entire responses to the Round One survey to each of the participating panelists would be too much detail, and could result in too great of a demand on the time of many panelists.

VIII. Recap of Round Two – the Ingredients into the Oven

The Round Two Survey strategies were presented to the participating panelists as follows:

> "This Round Two survey contains ten (10) strategies that represent a composite of many of the ideas contained in the Round One responses, and a series of questions about those strategies. Please complete any or all of the questions for which you have ideas; you do not need to respond to every question.
>
> The strategies below were constructed from participants' responses made with the Round One instruction to "assume the technologies and strategies **could occur in the next ten years**." The strategies range from those based on current technology to others that are much more speculative. The list of strategies below has been *approximately* ordered along this range."

As was the case for Round One, the rules were minimal, thereby encouraging imagination. A copy of the complete Round Two Survey is attached as Appendix C.

Results from Round Two were also substantial (63 pages after consolidation). The Working Group prepared a detailed summary (30 pages) of the responses to the questions about each of the 10 strategies; this document is attached as Appendix D-1. The complete consolidated responses to Round Two are attached as Appendix D-2.

Following are the ten strategies and related questions from Round Two, along with a short narrative summary (not the detailed summary in Appendix D-1) of the responses.

Strategy #1: Earth Friendly Insurance Company – "Paperless Processing"

Earth Friendly Insurance Company plans to adopt a "Blue Ocean" strategy called: "Paperless processing: do it all on-line!" "Part 1" of this strategy is to use technologies and processes that do away with paper applications, which may include the pre-population of some information about the applicant from internal or external sources. Information will be obtained through the internet or all-in-one communication devices either directly from the applicant or a field agent. Policy approval and an option to print coverage verification will be directed back by similar routes.

Earth Friendly also foresees a "part 2" of this strategy: the use of a "Touch the Screen" system in which the applicant would touch the computer/lap top screen and the finger print would automatically pull all medical files and other life style data. One slight prick of blood, similar to that used by diabetics for blood sugar testing, would provide immediate analysis of all physical conditions, which would be fed through the computer at the same time as the one-touch activity.

One company has already adopted a version of "part 1" of this strategy, issuing up to $250,000 of term life coverage to individuals age 18 to 60 "generally within minutes" based on "just a few health questions" answered online. An immediate decision is provided and, if approved, the applicant can print their in-force policy online.

Questions for Strategy #1:

1. Is this a "Blue Ocean" strategy or simply a window of opportunity for the early players?
2. What specific methods could be used to expand the concept to larger policies and older applicants in the near future?
3. Do you think "part 2" of the strategy will become feasible in the next 5 years? In the next 10 years?
4. Is there a patentable technological advance that would lead to a solution of legal issues regarding the use of underwriting information collected as described in "part 2" of the strategy?
5. What other observations do you have about this strategy?

Summary of Round Two Responses for Strategy #1:

By about 2:1 respondents said this was a window of opportunity rather than a "Blue Ocean" strategy, although some said "both" or said only Part 2 was "Blue Ocean." Twenty different ideas (or obstacles) were identified for expanding the concept to larger policies and older ages. Additional information from electronic data bases, such as pharmacy records, was mentioned by 9 respondents; no other idea was mentioned by more than two. "Part 2" of the strategy was deemed achievable in 5 years by about 1/3, partially or possibly achievable by 1/3, and not achievable by 1/3. Over 10 years the vote was 60% yes, 20% no, 20% possibly to likely. The possibility of a patentable solution to legal obstacles drew a mixed response, about evenly divided among "yes," "no," and "possibly/probably" with identification of issues. A variety of other observations were made, with privacy concerns mentioned by 5 respondents.

<u>Strategy #2: Super Fast Insurance Company – "Quantum leap in time to market"</u>

As part of its strategic planning, Super Fast Insurance Company has concluded that a significant but affordable investment in increased computing power and speed and other emerging technologies can drastically reduce its time to market compared to its competitors and more than pay for itself in market share. It has dubbed this strategy "Quantum leap in time to market."

Super Fast believes that it can achieve "real time" pricing of policyholder options, even with in-force products, that will enable it to market far greater flexibility and consumer choice. Even with the increased degree of rigor required in analyzing product profitability, including stochastic testing, more powerful processors and faster networks would enable it complete turnaround in minutes that formerly took overnight.

Furthermore, Super Fast believes that Business Process Management (BPM) software will support rapid installation of product variations. This would allow products to be rapidly configured (without special coding) to different markets and a wide range of policyholder options. Recognizing that state regulation will sometimes remain a speed bump in the process, Super Fast believes that the strategy will nonetheless pay off handsomely in many cases.

Questions for Strategy #2:

1. What are the greatest obstacles to adoption of such a strategy over the next 5 years? In the next 10 years?
2. How viable is this strategy, and what other obstacles should Super Fast anticipate?
3. Is this a "Blue Ocean" strategy or simply a window of opportunity for the early players?
4. What other observations do you have about this strategy?

Summary of Round Two Responses for Strategy #2:

By a ratio of 4:1, respondents did not think this strategy was viable. The majority did not believe that reducing "Time to market" was strictly a technological problem but that other factors were equally (or more) important. Factors mentioned included state regulation, bureaucracy (IT, legal, administrative), distribution and/or back end systems. Also, even if the "Time to market" could be vastly reduced, many questioned whether that was of any real value to the customer. And finally, not many thought it was a true "Blue Ocean" strategy.

Strategy #3: Insurance W/O Borders Co. – "Global internet sales where regulations allow"

The Insurance Without Borders Company observes that, across the globe, a wide variation exists in the regulatory environment and the associations that provide risk-related data. It is contemplating a proposed "Blue Ocean" business plan to take advantage of the current situations that are favorable – while other companies wait for world regulatory standardization.

The proposed business plan asserts that internet sales of life insurance could be made from many host countries - not just the United States and Canada. The plan is to choose a set of host countries with laws or regulations that permit (or at least do not prevent) internet sales of life insurance, and that allow the use of technologies currently available from a technical standpoint but not universally allowed from a regulatory standpoint.

The target is the ocean of people to insure in Africa, India, China and other countries relatively untapped by life insurance companies. The population growth of higher income individuals in these regions represents a marketing opportunity beyond the relatively mature domestic markets.

Questions for Strategy #3:

1. Is this a "Blue Ocean" strategy or simply a window of opportunity for the early players?
2. Is this a strategy to bring the benefits of insurance to more people; or to exploit people not yet protected by regulation up to the standards of more mature markets?
3. Considering the claims perspective, how can Insurance Without Borders verify claims in markets that lack open access to information; or where local certification authorities may lack sufficient checks and balances?
4. What other observations do you have about this strategy?

Summary of Round Two Responses for Strategy #3:

Although most respondents saw this as at least a window of opportunity, if not a Blue Ocean Strategy, there was a majority feeling that this involved elements of exploitation. One representative respondent said "It may start out with altruistic goals and ultimately result in being exploitative".

On the other hand, the majority also felt that the claims handling obstacles posed, as one respondent stated, "a big hurdle". Suggestions for this strategy generally stressed the need for local connections to banks, insurance companies and claims investigators.

One respondent summarized the popular feeling that "the market opportunity should not blind company management to the need for proper financial and underwriting controls".

Strategy #4: Global Insurance Company – "Global data mining, marketing"

Global Insurance Company operates in many countries and is planning the use of internet/cellular/data-mining technology to access and promote its products to the non-insured population across the globe. The technology will need to work in a concerted fashion to result in creating the "Blue Ocean" segments. Internet and cellular technology would be used for educating (and simultaneously advertising), getting feedback (to gauge effectiveness) and collecting premium payments. The data-mining technology would assist in designing advertising and products and locating target markets across the globe.

Global feels it is well positioned to use the Internet as a marketing tool to target "Blue Ocean" segments, especially the younger population, an international client base and non-working, retired adults. It plans to use "smart" vehicles to take data from customer behavior, buying patterns, demographics, and other relevant information to piece together messages that are tailored to a specific person.

Questions for Strategy #4:

1. Is this a "Blue Ocean" strategy or simply a window of opportunity for the early players?
2. Have the Artificial Intelligence advantages already been tapped out, or is there still opportunity for an inventive AI solution that leapfrogs all the current systems?
3. Is there anything such as intellectual property rights that might be enforced to prevent everyone else from copying the process and lowering the profits for all?
4. What other observations do you have about this strategy?

Summary of Round Two Responses for Strategy #4:

More than half (15 of 28) respondents feel opportunities exist for significant advances through Artificial Intelligence (AI) improvements. However, a significant portion (one third to one half) did not answer, or said they did not understand, the questions associated with the strategy. Respondents suggesting a Blue Ocean Strategy used "approaching", "possibly", and "More Blue Ocean than early adopter"; while the Window of Opportunity votes were more emphatic. Few felt that intellectual property could be protected internationally for an extend period of time.

Strategy #5: Your Way Insurance Company – "Prospects custom-design coverage online"

A think tank at Your Way Insurance Company has recommended a "Blue Ocean" strategy in which individuals would custom-design their insurance coverage online.

The entry point would be an online process driven model that enables consumers to design their insurance coverage by answering a series of questions. The model would have "click to call" expert advice available on how to use the model as well as for each insurance category, which could be a broad spectrum (life, health, annuities, long term care, auto, and home) or some subset. Only products with relatively simple and transparent pricing would be offered. Consumers would mix and match discrete, simple products to address comparatively complex needs.

Due to state insurance department restrictions, Your Way expects to issue multiple policies through different operating units to provide the overall coverage designed by the consumer. Online underwriting mechanisms and data bases would be used to narrow the price range, define the price subject to certain conditions, or determine the price precisely.

Response activity would be used to systematically refine the process model and coverage building blocks available to consumers.

Questions for Strategy #5:

1. What are the greatest obstacles that Your Way will find if it attempts to adopt this strategy?
2. Is this a "Blue Ocean" strategy or simply a window of opportunity for the early players?
3. What other observations do you have about this strategy?

Summary of Round Two Responses for Strategy #5:

Consumer education, knowledge, and motivation were most frequently identified as the greatest obstacles to this strategy. Regulatory issues, getting to the right people, simple products versus complex needs, and various insurance company internal issues were also identified by multiple respondents. Responses were about equally divided between those who viewed this as a Blue Ocean Strategy or a window of opportunity, with a few simply stating that it was not Blue Ocean, or neither. One participant provided an expanded description that he or she believed would make the strategy truly Blue Ocean, and that description was included in Round Three for study participants to provide further comments regarding the strategy. Finally, participants gave a great variety of additional comments about the strategy, and these are included in Appendix D-1

Strategy #6: Strategic Partners Insurance Company – "For Operational Excellence"

Like many companies, Strategic Partners Insurance Company is investigating increased use of technology for incremental improvements in operational excellence. It is considering a substantially increased investment in this area to pursue a "Blue Ocean" strategy to find innovative technological breakthroughs that may result in intellectual property rights. It is also considering strategic partnerships with non-insurance entities that could provide leveraging of applicant underwriting or claims information.

Examples might include access to online prescription or medical records, motor vehicle records, court records, shopping records, insurance policy and application records, biological or genetic sources, etc. as well as claims adjudication facilities that would complement internet policy administration.

Among candidates for a strategic partnership are a major pharmacy chain, a forensic laboratory, a supermarket chain, a credit card giant, a GPS (Global Positioning Satellite) device manufacturer, a biofeedback technology firm and even a big name jeweller – to make a medallion that is both a status symbol and a monitor (and transmitter) of basic life parameters – the 'bling' factor.

Questions for Strategy #6:

1. Is there anything such as intellectual property rights that Strategic Partners might enforce to prevent everyone else from copying the process and lowering the profits for all?
2. Is this an ethical strategy? Is more affordable life insurance availability a rationale for invasion of privacy or for discrimination for reasons perceived by many to be unfair?
3. Is this a "Blue Ocean" opportunity for players outside of the life insurance industry more than for insurers? For example, is it a "Blue Ocean" opportunity for a major pharmacy chain, for a credit card company, for a grocery chain, for an exercise club or for a manufacturer of smart toilets?
4. If Artificial Intelligence systems can encapsulate the knowledge necessary for medical underwriting, then does medical underwriting necessarily have to remain the province of traditional insurance companies?
5. What other observations do you have about this strategy?

Summary of Round Two Responses for Strategy #6:

There were no responses to about 1/3 of the questions. About one third of the responses were skeptical or critical of either the practicality or ethics (or both) of the strategy. Another quarter of the responses evidenced some support for the strategy, but often only under certain conditions. Finally, two respondents felt the description of the strategy was insufficient or the questions unclear. If so, this contributed to the level of non-responses.

<u>Strategy #7: Just What You Want Insurance Company – "Micro-policies"</u>

Just What You Want Insurance Company believes that there may be an emerging opportunity for a "Blue Ocean" strategy around offering "micro-policies." These products cover narrow risks, at targeted periods, for specific consumers, at highly specialized prices. Sophisticated – often diverse – technologies are often required to enable distribution, segment markets, price risk, and issue coverage. Although these policies have the potential to replace broader "blanket" coverages, the greater potential is to open markets for risks otherwise uninsurable. For example, life insurance for a bungee jumper could be sold to cover the specific event.

Questions for Strategy #7:

1. What are examples of previously uninsurable risks that could be insured through a micro-policy?
2. What methods of distribution, either existing or potential, could be used to target these risks?
3. Are there other definitions that could lead to micro-policies – geography, ethnicity, *etc*.?
4. What other observations do you have about this strategy?

Summary of Round Two Responses for Strategy #7:

Niche opportunities were identified to cover hazardous non-work activities (insured is knowingly taking a risk), specific diseases or medical conditions (insured is subject to genetic or non-cosmetic surgical risk), or environmental events that could cause financial loss (but perhaps not death). The spectrum of risks was broad and ranged from commonly described risks such as private plane piloting to highly creative risks associated with an extra-marital affair, or with a political campaign.

The distribution suggestions ranged from traditional (agents and brokers) and electronic (kiosks, internet, cell phones) to third party (event promoters, retail stores) where quick, small, low premium (but high profit margin) niche sales could be an ancillary part of some primarily non-insurance purpose. Examples include an event registration, an immunization for travel, or a retail goods purchase. The respondents felt that the sale had to be fast (minutes or seconds) and cheap to tap into a distribution system for another purpose.

Many respondents stressed the difficulty of pricing without statistically significant data and also the importance of getting the pricing correct, to strike the right balance between profitability and affordability.

Strategy #8: Holistic Insurance Company – "Risk 'agents' help mitigate all risks"

Its market research leads Holistic Insurance Company to believe that there is a need for customers to have their risks analyzed and mitigated "holistically". It recognizes that there may be interactions between life, health, property, and other risks that affect the underwriting, amount, and type of insurance needed to cover those risks. It has also identified certain risks that are not typically covered well, such as parents living longer or children needing to be supported longer than anticipated, and family dissolution.

The chief distribution officer has recommended that the company recruit and train special "risk agents" who would work closely with customers to analyze their entire risk profile and customize products accordingly.

Besides tailoring the insurance products to their overall situation, the "risk agent" could offer the additional service of direct risk mitigation and not just mitigation of the financial consequences of those risks.

Questions for Strategy #8:

1. How viable is this strategy? Could such a service be offered at a price that would be attractive to potential clients?
2. What technological barriers or other obstacles are there to such a strategy?
3. What other observations do you have about this as a "Blue Ocean" strategy?

Summary of Round Two Responses for Strategy #8:

By about 2:1, respondents said this strategy was "viable" but it was not nearly so clear that the respondents thought this was an actual "Blue Ocean" strategy. The responses seemed very polarized in that respondents were either very enthusiastic or very pessimistic towards the idea. The latter group were primarily concerned about overcoming regulatory and pricing obstacles. One respondent provided an example where something similar is already being done.

> "Although not exactly the same as the model, I do have a practical example. ABC Inc. has a long-term care service company that among other things provides underwriting and claims administration for LTC policies. One of the other programs they have is "safe at home", where they do an in person assessment of the insured's home to look for opportunities to make modifications that would reduce falls and identify other ways to improve safety (e.g., remove throw rugs, add banisters or replace steps with incline, add railings in level areas, improve lighting, etc.). Although this is a fee-for-service program, it should also help reduce LTC claims from falls and help preserve the insured's quality of life."

Strategy #9: Big Brother Insurance Company – "Monitor individuals' health, risk profile"

Big Brother Insurance Company seeks to build a "Blue Ocean" strategy around emerging technologies that will allow it to monitor and measure, on an ongoing basis, the risk profile of insured individuals. For example, a device could be installed in an insured's car that measures the distance driven, speed, whether seatbelts were used and even breathalyzer results.

Other technologies possible are:

- Home health monitoring devices that could periodically send information over the web such as heart rate, breath rate, blood pressure and weight.
- Personal/private information, such as some doctors' reports, may be accessed in electronic format.
- A personal electronic database could help with the treatment of an insured in the case of an emergency.

Since these technologies are invasive, clients would need to be provided with significant incentive in order to agree to this level of monitoring.

Questions for Strategy #9:

1. How viable is this approach? That is, could enough cost savings be generated to pass some back to the customer and still make an enhanced profit for Big Brother?
2. How much of a premium discount would be needed to make this strategy viable?

3. Is there any other incentive that could be offered to a potential client for this type of product?
4. What other observations do you have about this strategy?

Summary of Round Two Responses for Strategy #9:

By about 3:1 respondents said this strategy was not viable. Many thought it was not possible to arrive at a feasible premium discount that would make this style of product attractive to a consumer.

Strategy #10: Virtually Real Insurance Company – "Virtual World Insurance"

Virtually Real Insurance Company is exploring the concept of virtual world insurance. Virtual worlds, like SecondLife, are online experiences where people enter the "world" as an avatar – or electronic representation of themselves. These "worlds" are becoming more and more "real" as they draw more participants – including corporations - and the experience becomes more sophisticated. As this virtual reality expands, opportunities may be created for insurance – possibly distribution, marketing… or even products.

Questions for Strategy #10:

1. What advice would you give Virtually Real regarding the potential for marketing insurance in virtual worlds? For providing insurance products in virtual worlds?
2. How might virtual worlds blend with the real world to create opportunities for insurance companies?
3. What obstacles might a company face in pursuing a strategy that involves an online, virtual world?
4. What other observations do you have about this strategy?

Summary of Round Two Responses for Strategy #10:

Most respondents struggled to find any value in the virtual world idea, or simply made no comment. Most of those who did see an opportunity described it in terms of educating participants or using the virtual world to motivate real world insurance purchases.

IX. Recap of Round Three – the Icing on the Cake

The approach to Round Three was to provide each of the participating panelists with a summary of the aggregated opinion, and determine if any had any additional input. A copy of the specific questions included in Round Three is attached as Appendix E.

Results from Round Three were less robust. This is not surprising, since the participating panelists were asked merely to re-react, and is one of the indicators that a Delphi Study is complete: the panelists are not changing their stances. A complete consolidated response is attached as Appendix F. Following is a very brief summary of those responses.

Strategy #1: Earth Friendly Insurance Company – "Paperless Processing"

Additional technologies toward paperless processing were identified by two panelists, and the expected availability of electronic patient records were noted by two others.

Strategy #2: Super Fast Insurance Company – "Quantum leap in time to market"

Several panelists who were in the minority in Round Two in believing the strategy feasible (most did not) reiterated or expanded their reasons why the strategy could succeed.

Strategy #3: Insurance W/O Borders Co. – "Global internet sales where regulations allow"

Panelists noted additional concerns and opportunities for less developed countries.

Strategy #4: Global Insurance Company – "Global data mining, marketing"

There were few comments here in Round Three; panelists mentioned additional concerns, and the need for and difficulty of implementation were noted.

Strategy #5: Your Way Insurance Company – "Prospects custom-design coverage online"

Several panelists revisited the practical difficulties in making this work, while also sometimes noting that it would be quite worthwhile if it could be accomplished. Some expressed support for the expanded strategy provided by a panelist in Round Two, and one panelist suggested a new variation of the strategy.

Strategy #6: Strategic Partners Insurance Company – "For Operational Excellence"

Two panelists opined that there were two strategies here, one around strategic partnership and another around intellectual property. Another panelist noted that elements of the strategy were already in use in the industry.

Strategy #7: Just What You Want Insurance Company – "Micro-policies"

Additional "micro-policy" opportunities were mentioned, and one panelist partially changed to a more positive answer based on other Round Two responses.

Strategy #8: Holistic Insurance Company – "Risk 'agents' help mitigate all risks"

Two reiterated that this was the role of current multi-line insurance agents; others reiterated their support and added details to consider in implementation.

Strategy #9: Big Brother Insurance Company – "Monitor individuals' health, risk profile"

Other than one supportive comment, there were only reiterations of the Round Two prevailing negative view.

Strategy #10: Virtually Real Insurance Company – "Virtual World Insurance"

Limitations of this strategy were generally reiterated; one participant revised his view to support the marketing potential (as opposed to the insuring potential) of this strategy.

X. Summary and Additional Considerations

As described in the Introduction (Section II), our goal was to collect new ideas as opposed to projections of existing ones. In that light, our questions were open-ended to encourage qualitative, rather than quantitative, responses. It worked so well that we got more than we were expecting. In November of 2007, we received over 70 pages of ”summarized” Round One responses from the SOA research staff (who had to transcribe all of the individual responses and protect the anonymity of each respondent). This was not a study where we could easily categorize the responses and apply meaningful statistical metrics to summarize them. It took us until April of 2008 to distill the responses into 10 discrete strategies and send out the second round of questions. A few of the participants commented that 10 strategies were still too many for thorough consideration and response.

Round Two resulted in another extensive set of responses (although not as large as Round One); but they were mostly elaborations of, and extensions to, the ideas from Round One. Round Three saw fewer responses and a tendency towards coalescence into a smaller set of strategic ideas. This was consistent with the goals of a Delphi study. Our objective was not to have complete agreement among the respondents. We wanted to surface new ideas; to vet them among a group of insurance, technology, and marketing and distribution professionals across the country; to distill them to a set of strategies deemed by some to have potential; and to elicit perceived obstacles and shortcomings of the strategies. In all these respects, the project was successful.

A further positive indicator of success for this glimpse of the future is that it was not, for the most part, superseded by developments by the time we published the results. Current information, unlike a fine wine, does not age well. The longer the elapsed time of the study, the greater the danger that a study of the future could become a restatement of the past. During the course of the study, a few facets of some strategies, such as electronic signatures for instant approval applications (an integral part of Strategy #1 – “Paperless Processing”), have overcome many regulatory hurdles and become more commonplace, suggesting a window of opportunity or a head start on an inevitable industry trend, rather than a Blue Ocean opportunity. Others, such as the insurance of avatars in a virtual world, may be crossing from the implausible to the plausible as non-insurance cottage industries have since begun large scale sales of accessories and scenarios for these virtual beings. Perhaps even the most *outré* scenario (Strategy #10 – “Virtual World Insurance”) is a Blue Ocean opportunity despite our initial intuitive negative reactions to it. Quoting one of our respondents, “consumers are generally more receptive to and are ready for – looking for – paradigm shifts long before industries recognize the need for, envision and embrace them.”

Overall though, the year and a half from the mailing of the first set of questions (Round One) and the study conclusion (this document) seems to have been a sufficiently short enough time period to have preserved currency of information.

We have some suggestions for future studies of a similar nature. (Note that "we" here includes not only the POG, but some panelists as well.) Some of the most germane of these suggestions follow:

One suggestion for future qualitative type Delphi studies is to prepare in advance for the incoming responses, and thus shorten the turnaround time to the respondents. Shorter turnaround time tends to keep interest levels higher and also to promote quicker responses from the panel members. We were caught by surprise by the enthusiastic and prolific responses to our first set of questions. This is an excellent reflection on the quality of participation of the panel members; but it resulted in a time delay (almost 6 months) between Round One responses and Round Two feedback and questions. In hindsight, we might have saved turnaround time by pre-allocating the summary assignments (by Strategy number) among the POG and Working Group members. This would have precluded the need to schedule a meeting for volunteers and the subsequent assignments.

Another suggestion, given that the POG and the SOA Research Staff have other ongoing commitments, would be to form a project plan early in the project. A longer term project plan ahead of time might have enabled the POG and Working Group members to better schedule their time. Naturally, the creation of a project plan does not guarantee success. The best of plans can be negatively impacted when unexpected external needs take priority over the volunteer work, as they sometimes did over the course of this project. But often a plan can alert us to potential bottlenecks in time for effective remediation.

In some cases, an outside (paid) facilitator might be appropriate if speed is of the essence, or if the POG members are uncertain of how to proceed or unable to make a very substantial time commitment. However, in this project we chose the learning experience of conducting the study ourselves over the benefits of an outside expert to guide us. Such an expert may have helped us develop our questions and strategies better; even though the ten strategies were constructed from ideas suggested by the panelists, in some cases the majority of panelists did not believe that a strategy was viable or well conceived.

Having said that, the POG was aptly aided by the SOA Research Staff and the mix of talents and personalities seemed appropriate for the project. Additionally, this was a relatively low budget project and the cost of a paid project leader seemed unnecessarily prohibitive. Our volunteer project leader kept the project rolling along without the need for an outside facilitator.

When reflecting back on a newly completed, long term project, we sometimes tend to focus on the obstacles, the wrinkles and the things we wish we had done differently. However, it is equally important to note the things that went well. The mix of POG, Working Group, and SOA Research Staff members turned out to be one where innovation and enthusiasm abounded. All of us contributed more time than we originally planned because we found the interactions stimulating and thought provoking. We also saw that our efforts were generating higher than expected, ambitious, and enlightening contributions from our panel of respondents.

Likewise, we must credit the panel members for a notable collaborative effort. They responded with enthusiasm to the questions as written – and to rewritings they occasionally added themselves. The anonymity condition seemed to remove inhibitions and open the tap for an outpouring – no, a deluge – of creative ideas.

The final procedure which we followed and would recommend for any future Delphi study was to get as much diversity of backgrounds, positions, and locations as practicable. This should be a goal when choosing panelists, POG members, Working Group members, and Research Staff. Another suggestion, which we followed without any official mandate, was to ignore any hierarchical differences between POG, Working Group, or Research Staff members. Everyone was part of the Working Group … and everyone worked. This too, seemed to help create a more collaborative environment, and we feel it contributed to the quality of the study results.