

USING FUTURES STUDIES TO DESIGN TOMORROW'S PRODUCTS: A CASE STUDY

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ABSTRACT

The challenge companies face in developing innovative and profitable products and services that will be in demand in the future can be facilitated by futures studies techniques. This article presents a case study where an organization in the general insurance industry used a combination of futures studies techniques (including scenario development, causal layered analysis and backcasting) to develop over 40 new product concepts for evaluation by their strategic product development team. Some of the product concepts were considered by the client organization to be potentially revolutionary in nature.

KEYWORDS:

Case study; futures studies; scenarios; causal layered analysis; insurance.

USING FUTURES STUDIES TO DESIGN TOMORROW'S PRODUCTS: A CASE STUDY

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This paper describes a futures studies project that was conducted during late September and early November 2001 for Insurance Manufacturers Australia (IMA) who manufacture general insurance products for brands such as NRMA Insurance and RACV (Royal Automobile Club of Victoria), anz.com and Ford. IMA is owned jointly by Insurance Australia Group Limited (owner of the brands NRMA Insurance, SGIO and SGIC) and the RACV.

The author and Dr Sohail Inayatullah (see the related JFS paper, Inayatullah 2001) were engaged as futurists to develop broad scenarios of the future lifestyles, values and needs of consumers of general insurance products in Australia (and, more generally, in modern developed societies) in the year 2011. These scenarios were to provide innovative contextual backgrounds for a variety of brainstorming and product concept evaluation activities by the strategic product development staff in IMA.

The desired project outputs were to be new product concepts that could generate new income and profit streams for the organization. The use of futures studies techniques was decided upon by IMA not only as a way of helping to identify innovative new products but as a way of identifying them much earlier in the relevant window of market opportunity than might be the case using other more traditional brainstorming and problem solving techniques alone. IMA also hoped that we might be able to identify at least one new product that had the potential "to revolutionise the insurance industry and last for over 50 years".

The project reported here was commissioned through the Sydney-based futurists network known as The Futures Foundation.

Outline of the Futures Studies Project

The project involved the discrete activities described in Table 1 as well as follow-up product development and implementation activities conducted by IMA.

INSERT TABLE 1 HERE

The activities shown in Table 1 comprise a mix of futures studies workshops and workshops facilitated by a consultant specialising in training and guiding organizations in applying Edward de Bono's creative thinking skills. The futures studies workshops were intended to give people a broad canvass on which to paint their new product ideas. The other workshops were designed to efficiently and effectively manage the task of generating and ranking specific product concepts that would "work" in each of several future worlds or scenarios.

In summary, the structure of the project was as follows:

1. Review of published material on the emerging trends in the general insurance industry. Inayatullah (2001) has summarised many of the emerging trends affecting the general insurance industry in which IMA was located. This analysis was used as background reading by IMA prior to the commencement of the series of Workshops described in Table 1.
2. Audit current level of creative thinking skills in the strategic product development team and provide training to enhance their creative thinking ability. This was done using an instrument based on Edward de Bono's "Six Thinking Hats" (1999)
3. Generate scenarios depicting possible future worlds in which IMA might be competing with its insurance products in 2011. Identify the basis for competitive success in each world and the strategic implications for the company of each world eventuating.
4. Brainstorm possible new product designs that could be successful in one or more of the possible future worlds. These ideas were captured and rated using computer based group-working software developed by the TCLF Design and Technology Centre in Sydney.
5. Assess the relative attractiveness of each new product in each of the future scenarios. Also, identify the likely sequence of events that will have to be adapted to or managed as IMA moves to successfully introduce the most attractive product designs.
6. Following completion of the above structured activities that were facilitated by external futurists and creative thinking facilitators, IMA's strategic product development team conducted detailed analyses of the profitability and organisational implications of introducing each of the highly rated new product concepts. They then submitted formal product development proposals to their senior management team for approval.

We will not discuss in detail the nature of the creative thinking and brainstorming activities involved in Workshops 1 and 3 in Table 1 because they were facilitated by another consulting organisation and did not involve technology that would typically be regarded as futures studies technology.

Moreover, we cannot discuss the specific product concepts generated by the project nor the organisational implications identified as flowing from each scenario. These are considered by IMA to be valuable intellectual property.

The Future Scenarios Developed During the Project

Workshop #2 in Table 1 explored a range of drivers of the future (e.g. globalization; the rise of environmental/ community/spiritual values; mass customization; the reinvention of intermediaries as a knowledge navigators or "info-tailors"; demographic shifts and ageing) and considered how these might interact to define plausible future worlds. We chose to focus on the nature and role of cars and homes in these scenarios as IMA was most interested in developing innovative car and home insurance products.

Eight possible car and home scenarios were identified by the workshop. Four of these were selected as being most relevant for more detailed elaboration. The four scenarios were defined in terms of:

- Likely pathway from the present to the future; i.e. the causal chain of events that led to the future being realized.
- Visible characteristics of the future world.
- Insurance value proposition; i.e. what would home and car owners be attracted to in the way of “insurance”?
- Source of distributor competitiveness; i.e. what kinds of companies will be most successful in selling the kinds of insurance that consumers will be looking for?
- Implications for the client organization; e.g. how must they change in order to prosper in each future world?

The likely pathways were written by the author on the basis of the background research and the insights gained through the workshop conversations. The remaining elements of each scenario were proposed by the participants in Workshop #2 (see Table 1).

As the scenarios are considered commercially sensitive by IMA, only a brief sketch of each can be given here:

Scenario 1: Hi Tech World

This world is characterized by high tech homes and cars that people choose to spend considerable time in. Technology enables people to tailor their home and car environments to suit their individual tastes. Sophisticated technology is also widely used to help protect and maintain homes and cars.

Scenario 2: Global Village

There is a shift in values away from individualism and materialism to community and the environment. The 25% of Americans described as “cultural creatives” by sociologist Paul Ray (i.e. people with values of community, environmental sustainability and social equity) increasingly spoke up and began to shape the political agenda – see www.integralculture.org. They sparked sympathetic rallies among their counterparts in many other countries. The generation of ageing baby boomers also contributed as they sought to express their non-economic values and bring deeper meaning into their lives.

Scenario 3: City Based “Villages”

As stock markets recover around 2004, the major environmental and demographic issues re-emerge (e.g. ageing populations; gap between rich and poor). Australia sees high density urban development and cluster housing projects creating inner city “villages”. There is a consequent need to expand public transport in and around cities – including the development of new forms of public transport.

Scenario 4: Turning Inward

This scenario was added for the sake of completeness during Workshop 4, when Dr Inayatullah noted that we had not generated a clearly negative scenario. IMA agreed that it was important that we do so.

Economic growth stalls around the world. There is a widespread sense that “the system isn’t working any more”. Many countries raise tariff and other barriers and focus on addressing their many internal problems. Investment in new technology and in new productive capacity generally dries up as consumer spending dries up.

Learnings From the Project

This project demonstrated to all involved the power of combining a mix of different thinking tools; e.g. (a) futures thinking tools such as causal layered analysis, scenarios and backcasting which promote “paradigm busting” thinking about the world in which a business may have to operate; and (b) detailed idea-capturing and idea rating tools such as those involving the computer-assisted “group-working” technology facilitated by Allan Ryan of the TCLF Design and Technology Centre in Sydney.

The future scenarios enabled participants to consider possible new product and service offerings from a perspective that was systematically different from the present situation and the current suite of product offerings. People were able to broaden their thinking about what might be attractive to tomorrow’s consumers by “standing” (mentally at least) in a future world and considering products and services from that perspective.

In this case, the approach used did result in IMA being pleasantly surprised by several of the product concepts that were generated. They were considered to be definitely “outside the square”.

Possible Extensions to the Approach Taken in this Case Study

In other futures studies work undertaken for the Futures Foundation by the author and Dr Inayatullah, the new product concepts developed have been tested in market research with samples of consumers drawn from the segments of the client’s market that most closely matches the demographic profiles of the consumers identified as likely to populate each of the future worlds. The research has sought to confirm the perceived attractiveness (or fit) between the different types of consumers and each future scenario. This has helped to validate the description of the future world.

Another possible extension to the sequence of workshops described in this paper would be to hold a modified version of Workshop #2 to see whether the future scenarios developed by staff from the client organisation are the same as those developed by groups of customers (especially those young people who are likely to be the dominant customer groups in the future).

References:

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Inayatullah, Sohail (1998). "Causal Layered Analysis: Poststructuralism as Method". *Futures*, Vol.30, No. 8, October

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AGENDA OF WORKSHOP #2: Analysis of Trends, Emerging Issues and Underlying Worldviews Relevant to Insurance

The ten or so participants in this workshop comprised members of the Strategic Product Development team in IMA plus representatives of key external stakeholder organisations.

The workshop was facilitated by two futurists from The Futures Foundation and addressed the following topics:

1. What is the future and what are future studies methodologies?
 - (short presentation with case studies of success; eg, visioning companies over the last 80 years have 15 times the market value of those that are not visionary).
2. Mapping the "big picture" future:
 - what are the key global and Australian future-shaping trends, events, issues, probable scenarios, possible surprises (short presentations by futurists/facilitators)

Break

3. Small groups brainstorm impact of key trends and emerging issues on the insurance industry; and then...
4. Using causal layered analysis (Inayatullah 1998), take 2-3 key trends/issues and "unpack" them to identify possible ways that the whole notion of "insurance" may change in the future (e.g. from compensation when disasters strike to advocacy directed at minimising the risk of disasters).

Lunch

5. Develop probable scenarios (in outline only) based on the insurance futures analyses done in preceding small group sessions.

Break

6. Canvass initial ideas on possible new categories of insurance products/services or major re-thinking of existing product/service categories.
7. Discussion of the criteria the client should use for evaluating the attractiveness of new product/service ideas.

AGENDA OF WORKSHOP #4: "Testing" New Product/Service Ideas in Each Scenario

The ten or so participants in this workshop comprised members of the Strategic Product Development team and other key IMA influencers.

The workshop was co-facilitated by a creative thinking specialist and two futurists from The Futures Foundation. The workshop addressed the following topics:

1. Location of the new products/services put forward in Workshop #3 in one or more of the future scenarios developed in Workshop #2; i.e. "in which scenario are they likely to be most in demand; by what sort of customer; from what sort of supplier"?

Break

2. Exploration of the likely responses over time by customers and competitors in each of the previously developed insurance scenarios to the proposed new products/services. Development of likely future product lifecycles - mapped as timelines of key events and outcomes over the next 20-30 years. The Futures Foundation's futurists will ensure that groups take account of likely "big picture" events at appropriate points in time along their timelines.

Lunch

3. Identification of the product/scenario combination(s) that is/are most attractive for the organization (using the product evaluation criteria determined by the client).
4. Brainstorming of organisational decisions and actions that the organization and its key stakeholders will need to take to maximise the likelihood and attractiveness of desired outcomes for the shortlisted new products/services. Discussion of the readiness of the various parties to take these decisions and actions. Targeting of optimal business partners to assist in distributing the new products.

Break

5. Design of action learning activities that will enable the organization to monitor the degree to which different scenarios are unfolding and the continuing attractiveness of the product/service packages that have been proposed in these workshops.

TABLE 1

Activity	Parties Involved	Outputs
<p>LITERATURE REVIEW AND ANALYSIS Conduct a comprehensive review of the literature on emerging developments and product trends in the general insurance industry in Australia and overseas (particularly in the United States).</p> <p>Prepare a critical analysis and summary report.</p>	<p>The client provided a considerable amount of published material they had obtained from an industry association to which they belonged.</p> <p>Dr Sohail Inayatullah reviewed the literature including the client material and prepared a critical analysis.</p>	<p>A report containing a causal layered analysis and summary of the emerging product and market trends in general insurance.</p> <p>A slightly edited version of this report appears in this journal as Inayatullah (2001).</p>
<p>WORKSHOP #1: Creative Thinking Skills</p> <p>Format: Half day workshop.</p> <p>Agenda: The workshop introduced participants to tools and techniques for enhancing their creative thinking. The tools and techniques were based on Edward de Bono’s “6 hats” of creative thinking.</p>	<p>A facilitator (Allan Ryan) from the TCFL Design and Technology Centre in Sydney.</p> <p>Around 20 marketing, claims, customer service and IT staff from the client organization, including members of the strategic product development team.</p>	<p>An audit of the current thinking styles of the people who will be involved in subsequent workshops .</p> <p>Increased ability among workshop participants to shift their thinking to different styles as appropriate to the tasks involved in developing new product concepts.</p>
<p>WORKSHOP #2: Analysis of Trends, Emerging Issues and Underlying Worldviews Relevant to Insurance</p> <p>Format: 1 day workshop.</p> <p>Agenda: See Appendix 1.</p>	<p>Members of the strategic product development team and other key IMA influencers.</p> <p>Two futurists - who acted as the workshop facilitators.</p> <p>The creative thinking trainer (Workshop #1) and product concept brainstorming facilitator (Workshop #3) who participated in order to provide a link between the creative thinking activities and the futures activities.</p>	<p>Three scenarios of the possible futures in which insurance consumers might live.</p> <p>The needs of consumers in each world were brainstormed.</p> <p>The strategic implications for the client of each scenario were identified.</p> <p>The three scenarios developed in this workshop are described in this paper as Scenarios 1-3.</p>

<p>WORKSHOP #3: Generating New Product/Service Ideas</p> <p>Format: 1 day workshop</p> <p>Agenda: A computer assisted brainstorming technique was used to generate new product ideas that could be relevant to one or more of the futures outlined in the scenarios developed in Workshop #2.</p>	<p>A facilitator (Allan Ryan) from the TCFL Design and Technology Centre in Sydney.</p> <p>Around 30 marketing, claims, customer service and IT staff from IMA, including members of the strategic product development team and key influencers within the major partners.</p>	<p>Over 40 potential new product concepts.</p>
<p>WORKSHOP #4: "Testing" New Product/Service Ideas in Each Scenario</p> <p>Format: 1 day workshop</p> <p>Agenda: The computer based “group-working” technology was used to facilitate evaluation of the relevance of each of the new product concepts to consumers in each of the three future scenarios developed in Workshop #2 as well as in terms of the additional Scenario 4 that was identified during this Workshop. Backcasting was used to anticipate the events the client organization would have to manage in implementing each of the potential new products.</p>	<p>The TCLF consultant and two futurists who co-facilitated this workshop.</p> <p>The members of IMA strategic product development team.</p>	<p>Identification of the most highly attractive product concepts for each scenario rated against specific criteria of new product attractiveness that had been developed by the client.</p>