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Marketing Research and its Value: The Experience of Australian Organisations

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Abstract
There is a continuing need for organisations to identify the returns obtained from marketing research, such as direct knowledge acquisition or the indirect results of decisions made using this information (e.g., financial returns). This paper reports on a study based on a conceptual model proposed by earlier researchers that explored knowledge acquisition derived from marketing research, together with its dissemination and utilisation. An adequate fit for the model was found using primary data from a sample of decision-makers in Australian organisation. The findings of this empirical study show an association between marketing research, knowledge utilisation, and the performance of the organisations sampled.

Introduction
Examining formal definitions of marketing research leads to the view that such research studies are a systematic process of identifying problems or issues which require further information, and involve the design of data collection methods, managing and implementing the collection process, analysing and interpreting the results, and disseminating the information throughout the organisation (Zikmund, 1997). Arguably, organisations find that they need to conduct research to gather information on their competitors, consumers and the environment in which they operate. However, as Andreassen (1983) noted, many small businesses and non-profit organisations assiduously avoid more than a cursory flirtation with marketing research because they misunderstand what it is and what it can accomplish. It is contended that best practice requires organisations to be market oriented and to conduct marketing research if they are going to remain viable players in their industry (Hart and Diamantopoulos, 1992; Narver and Slater, 1990). However, the resources available to organisations, and the environment in which they operate, can affect the amount of research conducted by organisations (Yaman, 2000).

Marketing research is undertaken for many reasons, and many methods are employed. Despite the existence of the Internet (Net) for 26 years, business adopted the Net through its graphical face, the World Wide Web (Web), as recently as 1994. It was at this time that marketing researchers found a new tool to use (Adam and Clark, 2001). Marketing research organisations have been quick to see the advantages of using the Internet as a means of conducting research, with 80 per cent of marketing agencies within the United States indicating that some research was conducted online (Forrest, 1999). Furthermore, 93 per cent of organisations using online research predicted that their organisations would be using online research more extensively in the future (Miller, 2001).

More recently, the diffusion of the Web has accelerated in countries such as Australia. The number of Internet users has increased to the point where there were 4.2 million Internet subscribers in Australia as of July 2001 (ABS, 2001), with all large businesses having a Web presence, as do nearly all medium sized businesses and the majority of small businesses (NOIE, 2001). Since the Web provides increased market coverage, and productivity gains (Hanson, 2000),
marketing researchers have turned to TCP/IP technologies. Nevertheless, traditional research methods continue to be employed, which means that face-to-face focus groups and interviews, telephone surveys, observations, and mail surveys remain in place as data acquisition methods. The term "online research" is used to distinguish between the traditional tools mentioned and data acquisition techniques that are computer-mediated. The latter typically involve use of the Net (e.g., e-mail pre-notices) and the Web (e.g., HTML form questionnaires) as a means of interacting with respondents.

Even though the use of online research has grown quickly, there remains much to learn about the data which online respondents provide, and traditional forms of research should not be undervalued (Miller, 2001). The aim of this study was to investigate the applicability of a model of the usage of both traditional and online research methods, including investigation of the antecedents and consequences of such research.

Marketing Research
The antecedents to this investigation include studies concerning the nature and use of marketing research (Yaman and Shaw, 1998a, 1998b; Yaman, 2000). Yaman and Shaw investigated the acquisition and utilisation of knowledge through marketing research in the tourism industry. Their study aimed to "develop a model to depict the factors that are associated with the acquisition, and lead to utilisation, of knowledge, in this instance through marketing research, in tourism organisations and the effects of this utilisation on organisational performance" (Yaman, 2000, p. 201).

In investigating organisational use of marketing research and those variables that affect use, researchers such as Yaman and Shaw have investigated the effects of organisational characteristics, such as structure, innovativeness, performance and environmental aspects (e.g., Andreasen, 1983; Deshpande, 1982; Hart and Diamantopoulos, 1992; Jaworski and Kohli, 1993; Rogers 1995). The research outcomes have varied, with contradictions being evident concerning the relationship between organisational performance and the utilisation of marketing research. Some recent studies have shown how information is actually employed within the organisation (Menon and Wilcox 1994). The early research that was examined provided a perspective on the use of marketing research within organisations. The contributions of these authors are discussed further in the following section.

A Model of Knowledge Acquisition, Dissemination, and Utilisation Through Marketing Research
Based on earlier research (e.g., Andreasen, 1983; Deshpande, 1982; Hart and Diamantopoulos, 1992; Jaworski and Kohli, 1993; Menon and Wilcox, 1994; Rogers, 1995), Yaman and Shaw (2001) developed a conceptual model that highlights the relationships between organisational variables and/or effects on the acquisition and utilisation of marketing research. In their later study, Yaman and Shaw (Yaman, 2000) included such aspects as budgets, organisational demographics, external environment, structure, innovativeness of the organisation, the evaluation processes, the type of marketing research activities and techniques used, the utilisation of the information, the organisation's historic appreciation of marketing research, and performance outcomes.

The later-developed model by Yaman and Shaw (2001) is a combination of the earlier variables. This model aimed to explain the influences on the acquisition and utilisation of marketing research. An extension of this conceptual model was employed in the current study, and is presented in Figure 1. In effect, the Yaman and Shaw model was used as
the underlying model in the current investigation. Next, the variables presented in Figure 1 are discussed.

Organisational Demographics - Organisational demographics cover the characteristics of the organisation such as age and size (e.g., number of employees and annual revenue). Their importance is illustrated by such comments as those by Rogers (1995, p. 379) who stated, "the size of the organisation has consistently been found to be positively related to its innovativeness". Marketing research is intrinsically innovative, being essentially new knowledge, so there should be relationships here.

Organisational Structure - organisational structure relates to the formalisation of roles and the degree of centralisation within the organisation. By this is meant the rules and procedures put in place to guide the organisation's operations and the location of decision-making power within the organisation. Deshpande (1982) found that organisations which fostered a working environment that is relatively decentralised, with few formalised procedures, were likely to undertake greater amounts of marketing research (also see, Deshpande and Zaltman, 1982).

Innovation Culture - The degree to which organisations tolerate risk-taking, affects the innovativeness of the organisation. Jaworski and Kohli (1993, p. 63) believed that organisations need to be willing to take risks, and accept the threat of occasional failure, stating that "responding to market development entails some degree of risk and that if top management are unwilling to assume these risks, the organisation is less likely to be responsive to the changing preferences of customers".

Their research indicated that the greater the organisation's tolerance of risk-taking (and innovation), the greater the likelihood that the organisation will use a greater variety of techniques, such as online data collection methods. Arguably, organisations operating in a dynamic environment need to be particularly aware of their surroundings and be tolerant of risk-taking and innovation if they wish to succeed.

Environmental Aspects - The degree of uncertainty within the organisation's environment ultimately influences the amount of research undertaken by the organisation. The external environment needs to be monitored in order to evaluate the opportunities and threats that are likely to have an impact on the organisation. In monitoring the external environment, three such areas are usually involved: market turbulence, competitive intensity, and technological turbulence. Jaworski and Kohli (1993, p. 57) noted that, "businesses operating in a turbulent market are likely to have a greater need to be market oriented compared to businesses in stable markets".

Historic Appreciation - The utilisation of marketing research within the organisation may be a result of the experiences that managers have had with previous research projects. Yaman (2000, p. 69) stated, "this concept relates to the management's perception of the usefulness of marketing research based on its experience with past research projects. It also encompasses managers' perception of the quality of past research projects, including the attributes of marketing research reports".

Shaw (2001, p. 15) suggested that management's experience is related to the organisation's use of marketing research activities, when he stated that the "utilisation of marketing research is partly dependent on the prior disposition of executives who are commissioning or conducting research". Shaw found that managers who had a positive view of their past research experience were more likely to conduct more and varied research and utilise the results. Previous
marketing research that has resulted in wasted funds or inaccurate results may affect the future acquisition of marketing research.

Also, the organisation's experience with external research agencies may also influence the acquisition and utilisation of marketing research. External agencies are more likely to have the necessary skills to undertake specific types of marketing research (both traditional and online methods) and generate superior results, thereby increasing satisfaction and the likelihood of future use (Forrest, 1999).

Cost of Marketing Research - The cost of research also influences management's propensity to undertake future studies. Andreasen's (1983) study indicated that most managers viewed marketing research as a costly and complicated process. If management does not believe that the research is cost-effective for any reason, including their experience, then their perception may affect both the acquisition of new research and the utilisation of results.

Marketing Research Techniques - The organisation's resources and skills influence the types of research techniques used and ultimately affect the acquisition and utilisation of marketing research projects. "The more sophisticated techniques recognised and/or adopted by decision-makers may be indicative of the innovativeness of the organisation" (Yaman, 2000, p. 68). Yaman's (2000) investigation of the marketing research techniques used by tourism organisations also explored the five research process phases (research design, sampling procedure, data gathering, measurement, and analysis) individually. For example, research design can be descriptive, cross-sectional, longitudinal or causal.

Marketing Research Activity - Another of the facets included in the marketing research process section of the Yaman and Shaw (2001) model concerns marketing research activities. The term research activity covers the specific purpose or area of interest that the research project is investigating. Research activities generally involve exploratory or confirmatory research. Deshpande and Zaltman (1982, p. 18) stated that exploratory research "is intended to identify new or previously unconsidered courses of action", while confirmatory research "is intended to affirm a pre-determined course of action".

Knowledge Utilisation - Knowledge utilisation concerns the way information collected from marketing research is utilised within the organisation. Caplan, Farley, and Hoenig (1975), and Rich (1977) (as cited in Yaman, 2000, p. 65), classified use (utilisation) into two separate categories: instrumental use (knowledge for action) and conceptual use (knowledge for enlightenment). The work of Menon and Varadarajan (1992) resulted in the inclusion of a third category, affective use. Affective use relates to the use of knowledge for political purposes. The other two components of action-oriented use and knowledge enhancing use are in line with earlier work. This work resulted in the creation of the USER model (use of research) which combines instrumental use and conceptual use with a third category referred to as symbolic use. The USER model "conceptualises knowledge utilisation according to the underlying forms and type of use and the extent of use in decision making" (Menon and Wilcox, 1994, p. 3).

Organisational performance - There is intuitive appeal in the notion that undertaking marketing research and utilising the results will influence the financial performance of the organisation. Research by Jaworski and Kohli (1993, p. 64) indicated that "the market orientation of a business is an important determinant of its performance, regardless of the market turbulence, competitive intensity, or the
technological turbulence of the environment in which it operates. Jaworski and Kohli also noted that market share is not a good indicator of performance due to issues such as time lag. According to Hart and Diamantopoulos (1992), there is no direct link between marketing research and organisational performance. They contended that there is a relationship between marketing research and performance, but it is not as straightforward as might be hoped. Variables such as the quality of the research and the effectiveness of utilisation may affect the relationship.

Qualitative measures may be used to analyse the influence of marketing research on organisational performance. Techniques such as analysing employee morale and commitment may be used in situations when financial measures are
inappropriate (for example, in the case of non-profit organisations).

Methodology

In the current study, a Web-based self-administered questionnaire was used to collect the data. As others have identified, there are various reasons for using an online data collection method, not least of which are lower costs and increased speed (Adam and McDonald, 2003). The technique provides respondent convenience, and the absence of an interviewer may increase the respondents’ willingness to reveal personal information. The Internet allows the researcher to create a vivid presentation of the questionnaire, increasing the likelihood of responses.

In traditional postal surveys, undelivered or incorrectly mailed questionnaires are thrown away or slowly returned to the researcher. However, by using e-mail invitations, the researcher can immediately identify the number of undelivered questionnaires and decide whether further sampling is required to ensure reliability (McDonald and Adam 2003; Weible and Wallace 1998). These benefits justify the use of an online method as appropriate for the study at hand.

Twenty-four of the items used in the questionnaire were drawn from Yaman (2000). Of these, six were developed further to remove their industry-specific nature and to include online marketing research aspects. The items employed related to the current use of marketing research and opinions of the organisational level in relation to corporate environmental issues and certain aspects of knowledge utilisation, the age of the organisation, and the industry in which it operated. The remaining items covered issues relating to revenue, the likelihood of increased use of online marketing research, the amount of online marketing research undertaken by the organisation, the uses of external agencies to conduct marketing research, and the organisational use of a website. Also included were open text questions concerning employee numbers and expenditure, and a six-point Likert scale item relating to the respondents’ opinions about marketing research and other facets of the Yaman and Shaw (2001) model.

Yaman (2000) demonstrated the reliability of his questionnaire, by indicating that all groups of variables achieved alpha coefficients of 0.60, or above. Yaman investigated the validity of the questionnaire by conducting three tests (content validity, inter-item index validity, and concurrent validity), with the three validity measurements being acceptable.

Two qualifiers were set when defining the sample population for the present study. Firstly, the organisations within the population needed to have a website (an indication of the organisation’s ability to use Internet technology as a research tool), and secondly, the organisation’s domain name needed to be registered in Australia (i.e., have a .com.au domain suffix). A publicly available list of domain names from 1999 (originally obtained from AUNIC) was used as the sample frame. The list contained 64,913 Australian business domain names. A systematic random sample was drawn from this sample frame.

Data collection involved sending an e-mail inviting individuals to view an HTML form questionnaire. The online questionnaire was secured by login and password access on a Linux Web server. The e-mail took the form of an invitation that began by introducing the research area and the researcher.

Initially, 1079 e-mails were sent on 10 September 2001. During the sampling period, a series of events unfolded which served to reduce the response level, viz., a terrorist attack on the World Trade Centre in New York, the collapse of Ansett Airlines, and the infiltration of the Nimda worm computer virus (Lemos, 2001). Despite two reminder e-mails, the
low response level dictated the need to draw a second sample.

A second sample of 1,432 e-mail addresses was systematically drawn, thereby bringing the total sample size to 2,511. Data collection took place during the period 17 September to 3 October 2001. From both samples, 182 responses were received (7.9 per cent), after the removal of the 202 e-mails which “bounced”. Incorrect or obsolete e-mail addresses are not a new experience for researchers, and even where subscribers are involved, individuals have been found to use multiple e-mail addresses and allow their e-mail addresses to lapse (Adam and Deans 2000; Weible and Wallace 1998).

Table 1 identifies the main industries that are represented in the responses obtained, whilst Table 2 presents the types of structural marketing research arrangement the respondent had adopted. Further evaluation of the responses indicated that almost 65 per cent of respondent organisations employed

<table>
<thead>
<tr>
<th>Industry</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication services</td>
<td>31</td>
<td>17.9</td>
</tr>
<tr>
<td>Retail trade</td>
<td>19</td>
<td>11.0</td>
</tr>
<tr>
<td>Property and business services</td>
<td>19</td>
<td>11.0</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>13</td>
<td>7.5</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>11</td>
<td>6.4</td>
</tr>
<tr>
<td>Manufacturing in Business to Business</td>
<td>26</td>
<td>15.0</td>
</tr>
<tr>
<td>goods and Business to Consumer goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (a)</td>
<td>57</td>
<td>31.2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>176</td>
<td>100.0</td>
</tr>
</tbody>
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(a) Includes: Agriculture; forestry and fishing; Mining; Electricity, gas and water supply; Construction; Accommodation, cafes and restaurants; Transport and storage; Government administration and defence; Education; Health and community services; Cultural and recreational services; and Personal and other services.

Table 2 – Marketing Research Arrangement

<table>
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<tr>
<th>Marketing Research Arrangement</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central marketing research department, doing work for</td>
<td>24</td>
<td>14.2</td>
</tr>
<tr>
<td>the entire organisation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central department, but with regional or divisional</td>
<td>5</td>
<td>3.0</td>
</tr>
<tr>
<td>research unit elsewhere</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional or divisional unit, with headquarters elsewhere</td>
<td>4</td>
<td>2.4</td>
</tr>
<tr>
<td>No formal marketing research department, but</td>
<td>67</td>
<td>39.6</td>
</tr>
<tr>
<td>have at least part of one person's time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>definitely assigned to the research function</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No employees formally engaged in marketing research</td>
<td>69</td>
<td>40.8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>169</td>
<td>100.0</td>
</tr>
</tbody>
</table>
fewer than 20 individuals.
In the case of total annual gross revenues, 40.9 per cent (63 out of the 176) of the respondents reported revenue under $1 million, whilst only 1.1 per cent (two out of the 176) reported revenue above $500 million.

**Data Analysis and Research Findings**

The structural equation modelling (SEM) capabilities of AMOS 4.0 were used to examine a set of relationships between independent (exogenous) variables and dependent (endogenous) variables, and to assess the model's goodness of fit. It is important to note that structural equation modelling has no single statistical test that best describes the "strength" of the model's predictions (Hair et al., 1995, p. 489) (also refer Bollen, 1989, p. 275). Following a "trimming" process (see Grimm and Yarnold, 1998, p. 81), a variable-reduced "modified" Yaman and Shaw model was tested.

Figure 2 displays the results of a modified structural model. The analysis identified a positive relationship between "Marketing Research Process", "Knowledge Utilisation" and "Performance Outcomes". However, several of the relationships were found to be insignificant, with 13 observed variables and four latent constructs (individual characteristics, culture, historic appreciation of marketing research and cost of marketing research) not adequately contributing to the model.

The goodness of fit statistics indicated that the model was of an adequate fit. However, some covariance results were weak, whilst a number of factor loadings fell below ±0.30, demonstrating that they were practically insignificant (Hair et al., 1995). While caution should be observed in interpreting these findings, they nevertheless implied that organisational demographics were a stronger positive influencing factor for organisations that conduct both traditional and online marketing research, when compared to factors such as organisational structure and environmental factors.

On the basis of the following structure equation results for Figure 2 ($\chi^2 = 249.91$, $df = 134$, $\chi^2/df = 1.86$, $p < 0.000$, TLI = .97, CFI = .98 and NFI = .95) there was an adequate fit (see Hair et al., 1995, or Schumacker and Lomax, 1996) for the modified Yaman and Shaw model presented in Figure 2.

**Conclusion and Recommendations**

There has been a plethora of studies involving the influence of market orientation on organisational performance (e.g. Harris, 2001; Jaworski and Kohli, 1993; Narver and Slater, 1990; Pulendran et al., 2000). However, until quite recently, there has been a lack of systematic research into the influence of marketing research programs, and other aspects of strategic marketing, on organisational performance (Pont and Shaw, 2003). The present study sought to contribute to academic and practitioner knowledge in this regard.

The results of this study partially support the conceptual structure of the model put forward by Yaman and Shaw (2001) concerning the relationship between organisational and environmental variables and the organisation's utilisation of traditional and online marketing research. There are implications for marketing practitioners seeking to engage in marketing research. Perhaps the most important of these is that the utilisation of marketing research is positively related to an organisation's performance. This means that there is a positive association between funds devoted to marketing research and the financial returns on this investment.

As already indicated, the findings in this study also show a positive association between marketing research and knowl-
edge utilisation. This means that marketing research is not perceived as ineffective, as organisations and management do consider marketing research results when making current and future decisions. Furthermore, the fact that environmental factors are positively associated with marketing research, and the fact that the environment undoubtedly will keep changing, indicates that organisations and management will look to marketing research to keep them current regarding the changing wants and needs of their customers, and the competitive environment.

While this study provided managerial and academic contributions, the low response level obtained in this study is acknowledged, and this may have had some influence on the findings. Continuing research projects into this matter, as yet unpublished, are using larger samples, and offering a variety of response options, such as completing a Web-based questionnaire or mailing back the questionnaire, with a range of analytic opportunities resulting. Consequently, these findings should be seen as indicative only, with greater detail and clarity to be provided in the near future. This will enable trends and opportunities to be identified in this dynamic area.

Figure 2: Testing a Model of Knowledge Utilisation through Marketing Research

[Diagram showing a model of knowledge utilisation through marketing research with various nodes and edges, illustrating the relationships between factors such as type of industry, revenue via online marketing, gross revenue via traditional marketing, marketing research arrangement, percentage of traditional and online MR undertaken internally, competition in the industry, tech in the industry, knowledge utilisation, organisational structure, marketing research process, organisational demographics, organisational frequency use of tradition MR, organisational frequency use of online MR, organisational use of online MR will increase, organisational has systems to measure impact of MR, due to MR our unit sales increased, due to MR our ROI increased, satisfied with contribution MR made to sales, marketing research is beneficial & educational, MR findings have impacted on marketing decisions.]

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References


