

Developing and Testing a Model of Knowledge Utilisation through Marketing Research

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Abstract

Little research has examined the return on marketing research, be that financial or knowledge acquisition. Furthermore, there has been insufficient research into the factors affecting the conduct of marketing research. This paper investigates and reports on a conceptual model proposed by Yaman (2000), which explores knowledge acquisition, dissemination, and utilisation through marketing research. The study specifically explores and attempts to replicate the model's conceptual structure. The data were collected electronically via emails and an HTML web-form questionnaire, with a sample of 182 being obtained. Using structural equation modelling, the results obtained indicated an adequate fit for a modified Yaman model to the data from this particular sample.

Introduction

Marketing research is the “systematic and objective search for, and analysis of, information relevant to the identification and solution of any problem in the field of marketing” (Green, Tull, and Albaum, 1990, p. 2). Organisations need to conduct research to gather information on their competitors, customers and the broader environment in which they operate. Arguably, knowledge is a primary factor in the success of organisations, and organisations need to be market oriented and conduct research if they are going to remain viable participants in their industry (Hart and Diamantopoulos, 1993; Narver and Slater, 1990).

Research can be undertaken for many reasons and in many ways. The Internet has created a new means for researchers to conduct research. 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).

The number of Internet users has increased over the years, with 4.2 million Internet subscribers in Australia as of July 2001 (ABS, 2001, 1853.0). The Internet's geographical reach and ability to combine different forms of communications into one medium makes the Internet an attractive means of conducting research. Traditional research, for the purpose of this study, refers to those research techniques which involve the use of non-Internet related technology, such as face-to-face focus groups and interviews, telephone surveys, observations, and mail surveys. Online research refers to research techniques that are computer mediated and use the Internet as a means of communication with respondents. Even though the use of online research is growing quickly, there is still much to learn about the data it produces, 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 a range of antecedents and consequences.

Marketing Research

Researchers have investigated the relationship between organisational characteristics, such as structure and innovativeness, and environmental aspects, and marketing research usage and overall organisational performance. The research results have varied, with contradictions evident concerning the relationship between organisational performance and the utilisation of marketing research.

A leading “diffusion of innovation” researcher, Rogers (1995, p. 379) stated: “the size of the organisation has consistently been found to be positively related to its innovativeness”. Equally, Deshpandé (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, Deshpandé and Zaltman, 1982).

Research has suggested 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 research techniques, such as online research (see Jaworski and Kohli, 1993). Conversely, the level of uncertainty within the organisation’s environment may influence the amount of research undertaken by the organisation. Jaworski and Kohli (1993, p. 57) noted: “businesses operating in a turbulent market are likely to have a greater need to be market oriented compared to businesses in stable markets.”

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” (also refer to Raguragavan, Lewis and Kearns, 2000). Furthermore, the cost of research also influences management propensity to undertake future studies. Andreassen’s (1983) research indicated that most managers viewed marketing research as a costly and complicated process. If managers do not believe that the research is cost-effective for any reason (including their past experience), then their perception may affect both the acquisition of new research and the utilisation of results.

There is intuitive appeal in the notion that undertaking marketing research and the manner of utilisation of the results will influence the financial performance of the organisation. However, according to Hart and Diamantopoulos (1993), there is no “direct link” between marketing research and performance. They suggested that there was a relationship between marketing research and performance, but that it was not as straightforward as hoped. Conversely, 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.”

Based on the literature, Yaman (2000) developed a conceptual model that highlighted the relationships between organisational variables and the acquisition and utilisation of marketing research. The model development was based on research conducted on the tourism industry within Australia. Variables studied included research budgets, organisational demographics, the external environment, organisational structure, the innovativeness of the organisation, the marketing 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.

Methodology

The questionnaire used for this study was based on previous research by Yaman (2000) concerning relationships between organisational variables and the acquisition and utilisation of marketing research in tourism organisations. (Please note: none of the current authors is Yaman.) Twenty-four of the questions used within the questionnaire were drawn from the Yaman investigation. Of these questions, six were altered and developed further to remove the industry specific nature of the questions and to include online marketing research aspects. The questions related to the current use of marketing research and opinions of the organisation in relation to environmental issues and certain aspects of knowledge utilisation, the age of the organisation, and the industry in which it operates. The remaining questions 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. Several open textbox questions relating to employee numbers and expenditure, and a several six-point Likert scale questions relating to the respondent's opinions about marketing research and other facets of the Yaman model under investigation, were included.

Yaman indicated the reliability of his questionnaire, by demonstrating that all 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 criteria were set in defining the sample population for the present study: firstly, the organisations within the population must have had a website (an indication of the organisation's ability to use Internet technology as a research tool), and secondly, the organisation's website was registered in Australia (a *.com.au* URL – Uniform Resource Locator). A publicly available list of domain names from 1999 (originally obtained from AUNIC) was used as the sample frame. The list contained 64,913 *.com.au* domain names. A systematic random approach was taken to draw a sample from the frame.

Two research tools were used in this study, *viz.*, emails and an HTML web-form questionnaire. The questionnaire was placed online, and the website secured by a username and password feature to reduce the likelihood of unwanted individuals accessing the questionnaire. The email took the form of an invitation that began by introducing the research area and the researcher. The email also contained an active link to the online questionnaire, together with the relevant username and password details.

Initially, 1079 emails were sent on 10 September 2001. Unfortunately, during the sampling period, there was a terrorist attack on the World Trade Centre in New York, the collapse of Ansett Airlines, and the spreading of the NIMDA worm computer virus (refer to Lemos, 2001). Due to the lack of responses even after two reminder emails, it was decided to draw a second sample in an attempt to increase response levels. The second sample contained 1,432 email addresses, bringing the total sample size to 2,511. Overall, the data collection period ran from 17 September to 3 October 2001. At the completion of the data collection period, 182 responses were obtained, resulting in a 7.9 per cent response level, after the removal of the 202 emails which bounced.

Data Analysis and Research Findings

The structural equation modelling (SEM) capabilities of AMOS 4.0 were used to examine a set of relationships between one or more independent (exogenous) variables and one or more dependent (endogenous) variables and assess the model's fit. "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 model was tested. The results in Figure 1 display a modified structural model with standardised results.

The results in Figure 1 indicate a positive relationship between "Marketing Research Process", "Knowledge Utilisation" and "Performance Outcomes". Furthermore, the goodness of fit figures indicate that the model is of an adequate fit. However, a number of covariance results are weak, whilst a number of factor loadings fall below ± 0.30 , demonstrating that they are practically insignificant (Hair *et al.*, 1995), indicating that the results should be looked at cautiously. Nevertheless, they imply that organisational demographics are 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.

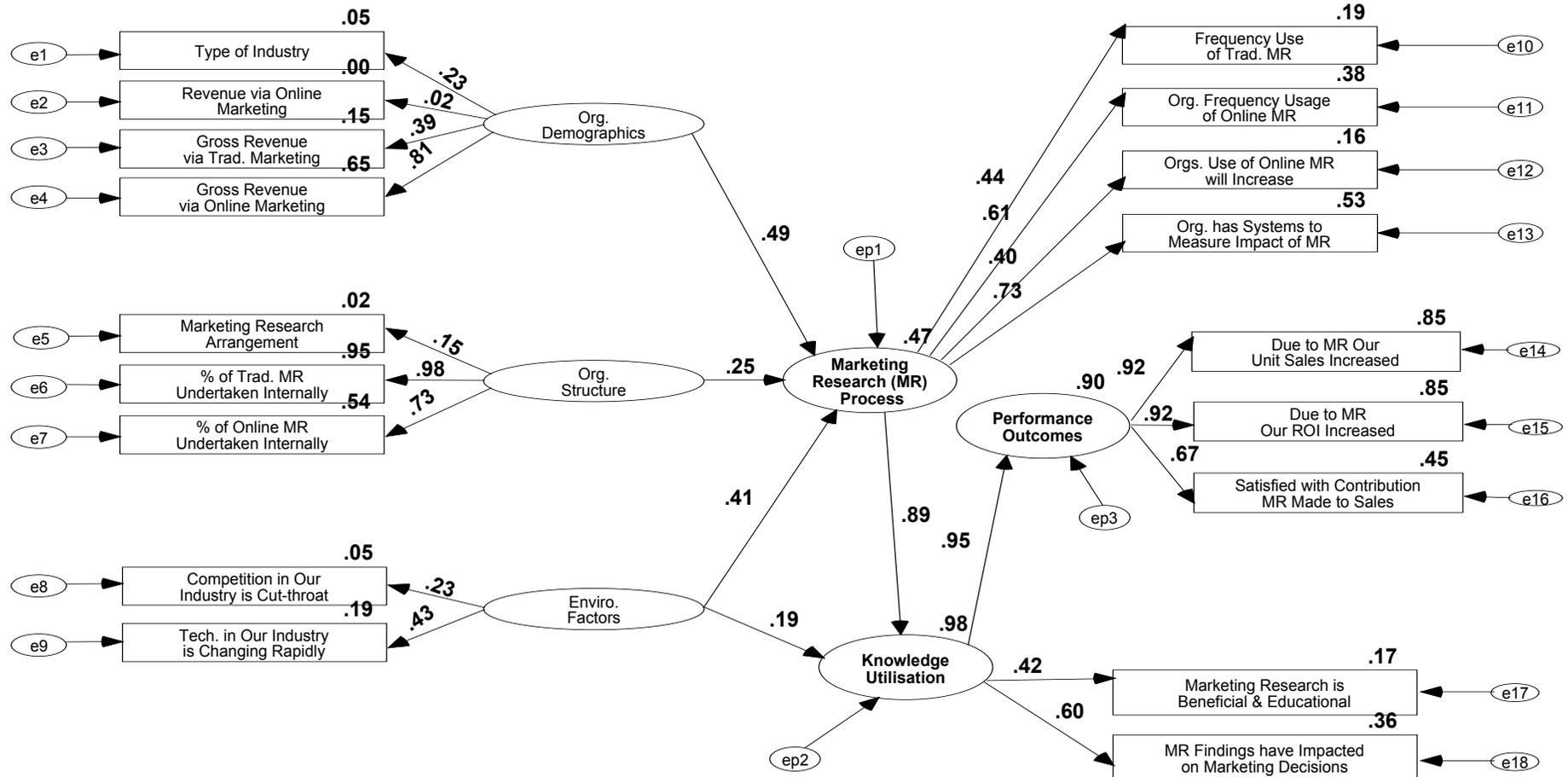
Conclusion

The results partially support the conceptual structure of the model put forward by Yaman, concerning the relationship between organisational and environmental variables and the organisation's utilisation of traditional and online marketing research. 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. Nevertheless, the remaining relationships show support in Yaman's model.

The findings provide implications for marketing practitioners seeking to engage in marketing research. Probably the most important one is that the utilisation of marketing research is positively related to the organisation's performance. Unfortunately, due to a lack of systematic research that has actually attempted to measure the influence of a marketing research program on the financial performance of an organisation, these results should be looked upon with prudence. Interestingly, the Marketing Science Institute (2000) has established a set of "Research Priorities" that have identified the topic of Metrics/Measuring Marketing Performance as being sufficiently important and timely as deserving intensive current and future research attention.

While providing managerial and academic contributions, the low response level obtained in this present study should be recognised, and possibly attributed to the factors outlined earlier. Continuing research projects in this program are using much larger sample sizes, 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.

Figure 1: Developing and Testing a Model of Knowledge Utilisation through Marketing Research



On the basis of the following structural equation results for Figure 1 ($\chi^2 = 249.91$, $df = 134$, $\chi^2/df = 1.86$, $p < 0.000$, $TLI = .97$, $CFI = .98$ and $NFI = .95$) there is an adequate fit (see Hair *et al.*, 1995, or Schumacker and Lomax, 1996) for the modified Yaman model.

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