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Colgate, Mark
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Marketing and Marketing Information System Sophistication In Retail Banking

MARK COLGATE

Deregulation, greater competition and information technology has led to the restructuring of the retail banking industries in virtually all developed economies. This has led to a greater emphasis on marketing activities and the use of information technology to support these activities. In light of this development this paper seeks to analyse the extent of the growth of marketing and the sophistication of marketing information systems (MkIS) in the context of Australasia and Europe. In particular empirical evidence is drawn from 67 postal questionnaires within the retail banking industries in Australia, New Zealand, UK and Ireland. The results indicate that although the use of marketing in these counties would seem to be growing, the application of information technology to support marketing is still at a low level of sophistication.

INTRODUCTION

Historically retail banks were seemingly disinclined to adopt the marketing concept and have been criticised for being largely 'product-led' [Lewis, 1984]. The debate, as to whether marketing is a valid science within the financial services industry, has existed for over a century [Rae, 1885: 23]:

> It is for the customers to come to a bank, and not for the bank to go to them...You ask how are you to push the business? But banking is a business to which the business of pushing must be applied, if at all, with the upmost circumspection.

A hundred years on, this view had moderated but McIver and Naylor [1980] argue that financial services are distinctive in three respects – fiduciary responsibility, involvement in national economic policy, and attraction of deposits in a situation where the raw material supplier is at the

Mark Colgate is in the Department of Marketing, School of Business and Economics, University of Auckland, Private Bag 92019, Auckland, New Zealand.

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same time a customer; and because of the impact of these differences, they argue, marketing can never be fully accepted.

The reality is that the retail banking industry did not embrace marketing as there was simply no need, not because of their refusal to accept marketing as a valid science. This is because bank markets were largely protected by regulation and operated in an oligopolistic environment. Deregulation (along with information technology), however, has increased competition with the financial services industry and financial services organisations have been forced, to some extent, to adopt the marketing science in response to this competition. The banking industries in Australia, New Zealand, UK and Ireland have all undergone widespread deregulation since the beginning of the 1980s. In New Zealand, for example, since 1987, there has been open entry into the banking market, no price controls, and few restrictions on product offerings.

One of the first empirical works undertaken on the sophistication of marketing in the retail banking industry was by Hooley and Mann [1987] in the UK in 1987. They concluded that 'financial institutions have moved substantially towards the adoption of a marketing orientation in the last five years; there is still, however, some way to go' [Hooley and Mann, 1987: 500]. Clarke, Gardener, Feeney and Molyneux [1988] similarly argue the same point. Ennew *et al.* [1993] also argue that despite the developments in marketing in financial services, there is still considerable progress to be made, both in terms of implementation and in academic research.

Although arguably there are few retail banks that could be cited as being exemplars of marketing excellence [Ennew *et al.* 1993], the past decade had seen a clear move towards marketing as a more integrated management function in financial services. There is considerable evidence for this trend in the UK [Ennew *et al.*, 1989; Thwaites and Lynch, 1992] and across other countries such as Hong Kong [Yee-Kwong, 1992], Australia [Adler, 1991], and Malaysia [Shanmugam, 1989].

The extent of this integration and sophistication is unclear, however. Moreover comparisons across and within countries are difficult because different questions, techniques and bases are used by researchers. Similarly, given that information technology (IT) is playing an increasing role in redefining the very nature of financial services, research that focuses on IT which supports marketing has been virtually non-existent. In light of these research deficiencies the aim of this paper is to:

- Examine the current level of sophistication and use of marketing, and the IT that supports it, within the retail banking industries in Australasia and Europe, highlighting any major differences that exist.

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- Use the empirical data to discover the antecedents for a sophisticated marketing information system and provide a model of what a sophisticated MkIS may look like.

RESEARCH METHODOLOGY

The empirical research was conducted using a structured questionnaire. This survey, taking the prevalent literature on questionnaire design into account [Easterby-Smith *et al.*, 1991; Youngman, 1984], contained a mix of dichotomous, open-ended and scaled questions, but as the questionnaire was quite long (eight pages and more than 100 questions), ease of completion was paramount. Wherever possible respondents were asked to tick response and attitudinal questions and numerical rating scales rather than seeking verbal answers. Similarly, numerical ratings always contained text to explain what the scale actually meant so the respondent was left in no doubt. Numerical scaled questions also facilitate statistically analysable data.

A number of steps were also taken to test and validate the instrument. First, drafts were sent out to two banks and two building societies within the UK. These banks and building societies were asked to comment on various aspects of the pilot questionnaire and recommend changes. The organisations who completed the pilot questionnaire were chosen at random from the population and were removed from the list of firms who were targeted to complete the final questionnaire. The recommendations from the pilot questionnaire and other validations were incorporated into the final version of the questionnaire. The data obtained was comprehensive and there was no evidence that respondents had difficulty with any of the questions.

The postal survey was administered in 1996 to 113 retail banks in Australia, New Zealand, UK and Ireland. Australia and New Zealand was taken as a proxy for Australasia and the UK and Ireland were taken as proxies for developments in Europe. The response rate was 56 per cent from the UK and Ireland (46 firms) and 77 per cent in Australia and New Zealand (26 firms). The overall response rate was 61 per cent (69 firms). This can be considered a very high response rate and exceeding those reported for other postal questionnaires within the financial services industry [Fletcher and Wright, 1994]. This success reflects the adoption of recommended guidelines for ensuring a high response rate [Churchill, 1991; Fosgren, 1989; Green *et al.*, 1988].

The respondents had various organisational titles within their banks. However, most respondents who filled out the questionnaire were marketing information managers, marketing managers, assistant marketing managers, market research managers or strategic planning managers.

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Corporate banks were omitted from the survey as were those banks with no formal marketing departments. As the population was so small, a census, rather than a sample approach, was used. The only firms that were omitted were those firms who had completed the pilot study. An analysis of the non-respondents revealed no significant reason for their non-completion. For example there seemed to be no difference in factors such as size of the institution and type of institution between respondents and non-respondents.

EMPIRICAL EVIDENCE ON CURRENT SOPHISTICATION OF MARKETING

Several questions in the survey dealt with the degree of sophistication of marketing. One section of questions analysed the strategic importance of marketing within the respondents organisation and the marketing philosophies of these firms. Table 1 lists these questions, and the responses by the Australasian and the European banks. All questions had a seven point Likert scale, with 1 representing 'strongly agree' and 7 representing 'strongly disagree' (unless otherwise stated).

TABLE 1
STRATEGIC IMPORTANCE OF MARKETING AND MARKETING PHILOSOPHIES

Question	Australasian Mean	European Mean	T-test for equality of means (two tailed test)
There is an emphasis on short-term profits, rather than customer satisfaction in the long-term	3.35	4.63	t=2.4 p=0.05
We believe the customer must get what they want, even if it is sometimes unprofitable for the company	4.7	3.98	
Our focus is on the marketplace: identifying customer needs and meeting those needs profitably	1.7	1.85	—
We believe selling comes first, profits generally follow	4.3	4.1	—
Involvement of marketing personnel in organisational strategic planning (1=very involved ... 7=not involved at all)	1.8	2.45	t=2.02 p=0.05
How serious would it be for your organisation if a marketing decision proved to be wrong (1=very serious....7= not serious at all)	2.1	3.1	t=3.58 p=0.01

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An analysis of Table 1 shows that, generally, the marketing of the banks that responded to the survey does have a certain degree of sophistication. Marketing personnel are quite heavily involved in the strategic planning of the organisation, marketing decisions are important to the organisation as a whole, and the overall marketing philosophy would seem to be customer orientated (identifying customer needs not selling orientated). A comparison of the means in Table 1indicates that although Australasian retail banks would appear more sophisticated as the marketing staff are more involved in strategic planning and the marketing decisions are regarded as more important to the organisation, there is some evidence it is the European banks that have the more appropriate marketing philosophies.

The survey also ascertained which activities marketing departments within the Australasian and European banks had responsibility for. This gives a clearer indication of the functional areas marketing departments had responsibility for – and which functional activities marketing departments are still not 'trusted' with. This also gives us a much greater understanding of the sophistication of the marketing departments within these banks. Table 2 shows a list of these activities and their associated means.

TABLE 2
RESPONSIBILITY OF MARKETING DEPARTMENTS IN FUNCTIONAL ACTIVITIES

Marketing Activity	Australasian Mean	European Mean	T-test for equality of means (two tailed test)
Direct mail	1.25	1.49	—
Media advertising	1.1	1.15	—
Point of sale advertising	1.4	1.29	—
Public relations	1.9	2.2	—
Interest fee setting	2.25	2.78	—
Fee levels	2.3	3.11	t=2.17 p=0.05
New product development	1.85	1.63	—
Existing product modification	1.85	1.95	—
Product mix decisions	2	1.97	—
Branch location decisions	3.75	3.3	—
ATM location decisions	3.75	4.05	—
Creation of new distribution channels	2.85	2.46	—
Distribution channel mix decisions	2.94	2.55	—
Market research	1.1	1.77	t=317 p=0.01

Table 2 shows that marketing departments have a wide range of responsibilities. However, it is still the 'traditional' marketing activities that were carried out the most by the marketing departments: media advertising, market research, point-of-sale advertising, new product development, direct

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mailings, and public relations are all the domain of the marketing department. 'Non-traditional' marketing activities such as setting interest levels and fees are further outside the responsibility of the marketing departments. Similarly, the responsibility for branch and ATM (Automated Teller Machines) location decisions would also seem to be located further outside the marketing department.

A comparison of the means in Table 2 reveals little difference, although it would seem that marketing departments of Australasian banks appear to have much more responsibility in setting fee levels. Undertaking market research would also seem to be more important in the marketing departments in Australasia. It is interesting, however, that most of the responsibilities of the marketing departments in European and Australasian banks are closely akin.

MARKETING INFORMATION SYSTEMS IN THE RETAIL BANKING INDUSTRY

Allied to the sophistication of marketing within the Australasian and European retail banking industries is the use of information technology (IT) to support marketing. IT is increasingly being used by banks in an attempt to a gain a sustainable competitive advantage [Dawes and Worthington, 1996; Wilkinson and Lomax, 1989]. The use of IT to support the marketing function has been no different. IT that supports the marketing function is becoming even more important because most other IT applications that emanate through the marketing function are quickly and easily replicated (for example ATMs, and Telephone Banking) [Colgate, 1996]. Given the importance of this type of IT this paper seeks to analyse its current use within the retail banking industry, and the antecedents for its successful use.

IT that is used to support marketing is often referred to as part of the marketing information system (MkIS). Although MkIS do not have to contain any IT application, in reality most MkIS within financial institutions contain some form of IT, although the sophistication and pervasiveness varies greatly.

A definition of a MkIS is a difficult task, particularly if you prescribe to the notion that there is no one MkIS that will serve all organisations because of the unique information requirements of different organisations as Uhl [1974] does. The first definition of an MkIS was presented by Cox and Good [1967]. MkIS was seen as a set of procedures and methods for the regular planned analysis and presentation of information for use in making marketing decisions. Brien and Stafford [1968], Smith *et al.* [1968] and Buzzell *et al.* [1969] further developed this definition by dividing marketing information into control, planning and research information. Since this time

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numerous academic articles have been written attempting to explain what MkIS are, using models to explain this definition [see for example Graf, 1979; Kotler, 1991; Li *et al.*, 1993].

Within the marketing of financial services literature only one piece of notable research has been undertaken on MkIS. Mitchell and Sparks [1986] looked at the sophistication of MkIS within six of the major banks in the UK [Mitchell and Sparks, 1986]. This paper, seeks to extend this research and analyse the current sophistication of MkIS within Australasia, and Europe.

EMPIRICAL EVIDENCE ON THE CURRENT SOPHISTICATION OF MkIS

Several questions within the survey dealt with the degree of sophistication of MkIS in the retail banking industries in Australasia and Europe. In particular one question attempted to ascertain the sophistication of the MkIS through a list of qualitative choices. These questions can be seen in Table 3.

TABLE 3
MARKETING INFORMATION SYSTEM CAPABILITY

Capability of MkIS	Australasian %	European %
It simply provides data on which decisions are made.	25	33
It has the capability to undertake simple analysis of the data and from this provides information on which decisions are made.	45	46
It provides sophisticated analysis of data, and therefore provides invaluable decision support information.	20	17
It provides sophisticated analysis of data and has the ability to make recommendations, if so required, as an aid to decision making.	10	4

Most MkIS within the retail banking industry, Table 3 shows, have limited sophistication, with over 70 per cent only being able to undertake a simple analysis of the data. Australasia, it is worth noting, have a greater percentage of banks with more sophisticated MkIS than their European counterparts.

Another list of questions attempted to delve further into the sophistication of the MkIS issue. These questions focused on the specific abilities of the MkIS. All questions had a seven point Likert scale, with 1 representing 'strongly agree' and 7 representing 'strongly disagree' (unless otherwise stated). Table 4 outlines the results from these questions.

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TABLE 4
CAPABILITIES OF THE MARKETING INFORMATION SYSTEMS IN THE RETAIL BANKING INDUSTRY

Question	Australasian Mean	European Mean
Marketing personnel can obtain all the marketing data they need from our system	4.7	4.52
Our system has many interfaces with commercial databases	4.65	4.97
Our system is not user friendly for marketing purposes	3.87	3.89
Our system has the statistical capabilities to analyse all market data	4.81	4.89
Our system has all the statistical capabilities to analyse all customer data	3.99	4.15
Presently there is too much information for our marketing personnel to handle	4.39	4.81
Our system allows cross-holding of services by customers to be easily identified	3.61	4.08
Our customer information can be used to facilitate cross-selling activities	3.01	3.52
The performance of the marketing information system to date has been above expectations (1=well above expectations...7=well below expectations).	4.55	4.62

Table 4 clearly shows a low level of MkIS sophistication and validates the results presented in Table 3. In particular the performance of the MkIS to date (the final question in Table 4) is below expectations. Not one variable measured highly, with only the identification of cross-selling opportunities achieving any respectability. Clearly the use of MkIS within retail banks has some way to go before it reaches an acceptable level. In a comparison of the means (t-tests) in Table 4 it was found that there were was no significant difference between the New Zealand and Australian banks and those respondents from the UK and Ireland.

ANTECEDENTS FOR MkIS SOPHISTICATION

Given the low level of sophistication of MkIS within the retailing banking industry in the countries under analysis there would seem to be a necessity for research carried out as to why banks have these problems and how they can be overcome.

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There is very little research, however, that looks at the sophistication of Marketing Information System Technology (MIST) within the financial services industry. What there is is very piecemeal or unfocused (for example see Dawes and Worthington, 1996; Fletcher and Wright, 1994; Hughes, 1992; Katz, 1988; Whybrow, 1994). Given the lack of sophistication of MIST and the scarcity of research on how to create it, this paper now investigates the antecedents for sophistication. Correlation analysis and factor analysis were used to unearth these antecedents.

The variables in Tables 3 and 4 were then used to discover the factors that enable a sophisticated MkIS to be created. These ten variables can be considered measures of sophistication of a MkIS e.g. the capability of a MkIS presented in Table 3. These ten measures of sophistication were then correlated against a selection of questions within the survey that could potentially be antecedents for a sophisticated MkIS (for example competitiveness, marketing sophistication, amount spent on IT within marketing, and the number of people who work in the organisation). These potential antecedents for sophistication were mainly taken from the literature (see for example Fletcher and Wright 1994) but some were derived through expert interviews.

Fourteen variables emerged as being antecedents for sophistication. The criteria for selection was that these variables had to correlate significantly with at least three of the measures of sophistication. These 14 variables can be seen in Table 5.

TABLE 5
FOURTEEN ANTECEDENTS OF MKIS SOPHISTICATION

Variable	Variable Number
Responsibility not in media advertising	1
Responsibility not in new product development	2
Responsibility in branch location decisions	3
Emphasis on customer satisfaction – not short-term profits	4
Emphasis on identifying customer needs	5
Marketing personnel are involved in strategic organisation decisions	6
Marketing decisions are important to the organisation	7
IT decisions made with a 'leap of faith'	8
Responsibility for IT decisions	9
The threat of new entrants is thought to be high	10
Proactive use of IT within marketing	11
Greater amount of marketing budget spent on IT	12
Greater amount of IT budget spent on strategic applications	13
Don't think that competition will increase within the industry	14

The correlation analysis also revealed various 'patterns' in the relationships between the 14 antecedents for sophistication. Factor analysis

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was used, therefore, to discover these patterns [Afifi and Clark, 1984; Child, 1991; Kim and Muller, 1978] and to reduce these variables into a smaller set of underlying factors. This research employs the principal components factor analysis technique which uses an orthogonal (Varimax) rotation of the initial factor pattern and therefore produces factors which are linearly independent and orthogonal. Clarke [1990] indicates this rotated factor pattern provides a clearer resolution of the underlying factors. Five factors were extracted using *Kaiser's criterion* [Child, 1991]. Only those variables with loadings of more than 0.5 were considered to be significant in this research. Table 6 shows these five factors.

TABLE 6
FACTORS UNDERLYING MkIS SOPHISTICATION

Factor Name and Variables	Factor Number and Factor Loadings				
	1	2	3	4	5
Strategic Perspective					
Meeting customer needs	.81				
Threat of new entrants	.71				
Marketing personnel involved in strategic planning	.69				
Strategic use of IT budget	.62				
Marketing decisions important to organisation	.53				
Marketing Not Just in Name					
Responsibility not in media advertising		.88			
Responsibility not in new product development		.77			
IT decisions made with a 'leap of faith'		.57			
Proactive Use of IT					
Responsibility for IT decisions			.76		
Greater percentage of budget spent on IT			.75		
Strategic use of IT			.51		
Marketing Orientation					
Responsibility for branch location decisions				.81	
Emphasis on customer satisfaction				.59	
Monitoring Competition through IT and Marketing					
Proactive use of IT within marketing					–.82
Competition unlikely to increase					.58

Factor one, 'strategic perspective', suggests that those organisations who have sophisticated MkIS have a strategic outlook. Marketing has a strategic role in the organisation, a larger amount of the marketing IT budget is spent on strategic applications, and the threat of new entrants is considered high (which may be established through environmental analysis).

Factor two is labelled 'marketing not just by name' as the variables within this factor indicate that those banks who have sophisticated MkIS do

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not have much relative responsibility in media advertising and new product development. These marketing departments obviously concern themselves with other marketing activities other than the 'traditional' activities. This suggests that these marketing functions are more than marketing departments in name only – they have a strategic importance within the organisation. The final variable in this factor underlines this point as it suggests that marketing IT decisions are made even when the benefits of the technology are not entirely clear. This indicates that marketing can obtain resources for projects even when they are not fully cost justified.

Factor three, 'proactive use of IT', indicates that those organisations who have sophisticated MkIS have a very positive approach towards the use of technology. They spend more of their marketing budget on IT (and strategic IT applications), and they have a large amount of responsibility in making IT decisions.

Factor four, 'marketing orientation', indicates that those organisations which have sophisticated MkIS have much responsibility in branch location decisions (which are strategically important to financial services organisations) and there is a strong marketing philosophy.

The final factor, 'monitoring competition through IT and marketing', suggests that organisations who have sophisticated MkIS do not worry about the intensity of competition because they use IT and marketing effectively to monitor the environment. These organisations, the variable suggests, *don't* think the competition within the industry is likely to increase and are proactive in their use of IT.

CONCLUSION AND FUTURE RESEARCH AGENDA

The retail banking industries in Australasia and Europe was one of the last industry sectors to embrace the science of marketing. Regulation meant that little marketing of products and services was required by organisations within this industry sector. Deregulation has completely changed this scenario, however, and the retail banking industry is now one of the most competitive industries within these continents. In response to this competitiveness the marketing science has been embraced, to a certain extent, by banks. This research suggests that banks have reached an acceptable level of sophistication in terms of marketing. In particular in a comparison with other research [Morgan, 1988] these results suggest a large improvement in self-professed levels of marketing sophistication. Of particular interest is the fact that the levels of marketing sophistication found within this paper varied little in a comparison of those organisations from Australasia and from Europe.

In contrast, however, the use of IT to support marketing is still at

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relatively low levels of sophistication. This may be due to the fact that IT to support marketing within the retailing banking industry is very difficult to implement [Colgate, 1996]. As MkIS have the potential to deliver sustainable competitive advantage in retail banking [Dawes and Worthington, 1996], banks should address this problem in a strategic manner. In a attempt to further understand the antecedents for MkIS sophistication this paper presented a list of five factors that were correlated to MkIS sophistication. These factors suggest that only the most marketing orientated of organisations, that are proactive in the use of IT, will be able to create a sophisticated MkIS.

There are a few limitations within this paper. First the UK and Ireland are taken as proxies for Europe when clearly a much wider selection of countries would be more representative. However, these countries are taken as being indicative of the changes occurring in Europe rather than being generalisable to the continent as a whole. Another limitation is the fact that the questionnaires were filled out by the banks themselves. In this respect the levels of marketing and MkIS sophistication are self-professed. Other individuals (such as customers or banking experts) may have other ideas regarding current levels of sophistication.

Future research should further investigate the factors that influence MkIS sophistication. Similarly, future research should consider other dimensions of marketing sophistication and not just the internal marketing orientation issues addressed in this paper. Banks may think they are marketing orientated but do their actions in the marketplace conflict with the results in this study? Finally it is recommended that future research uses the same base of questions this research has employed, so that future research results can be compared to historical data.

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