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The Antecedents and Consequences of Market Orientation in Australia

by

Sue Pulendran †

Richard Speed †

Robert E. Widing II §

Abstract:

The subject of market orientation has been of interest to both researchers and practitioners for several years. The work of Jaworski and Kohli (1993) inspired a substantial body of literature that empirically examined the antecedents and consequences of a market orientation. This article contributes to that body of literature by investigating the antecedents and consequences of market orientation in Australia. The results successfully replicate the Jaworski and Kohli findings, within an Australian environment. Results illustrate that understanding the culture, activities and processes associated with market-oriented activity have significant implications for organisations in Australia.

Keywords:

MARKET ORIENTATION; BUSINESS PERFORMANCE; ANTECEDENTS.

† Melbourne Business School, 200 Leicester Street, Carlton, VIC 3053. Email: r.speed@mbs.unimelb.edu.au

§ Department of Marketing, University of Melbourne, Parkville, VIC 3052.

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1. Introduction

For more than three decades, scholars in marketing have emphasised that a market-oriented organisation will benefit from superior market performance (Kotler 1984; Kotler & Andreasen 1987; Levitt 1960; Narver & Slater 1990). In fact, the subject of market orientation (MO) has become so charismatic, that recently the Marketing Science Institute designated MO as a high priority area for research (Cravens, Greenley, Piercy & Slater 1998).

Although only a few companies are fully market-driven, managers are beginning to see MO as a pivotal factor in securing and maintaining market leadership. The spotlight is on MO as opposed to sales orientation, with the objective being to secure long-term profitability, as opposed to short-term gain. Cravens et al. (1998) attribute the success of organisations such as Virgin to the company's focus on being market-oriented. Virgin recognises the value of adapting its structures, roles and processes to the changing market requirements. Similarly, senior management in Dell Computers is dedicated to engendering an integrated culture and developing processes that facilitate MO. While examples of organisations that fail to identify and respond to their customers abound, Cravens et al. (1998) argue that being market-oriented creates an environment for listening, understanding and responding to the market and the competition. It is in this manner that customer satisfaction is managed and strong competitive barriers are built.

The academic study of MO has focussed primarily on the consequences of being market-oriented. What is noteworthy, however, is that relatively little systematic effort has been devoted to understanding the methods by which MO could be developed (Harris & Piercy 1998). In fact, Narver and Slater (1990) and Jaworski and Kohli (1993) emphasised the need to tap into the 'drivers' of MO. It was the Jaworski and Kohli (1993) study that initially examined the antecedents of MO. If MO plays a pivotal role in the achievement of superior business performance then what are the factors that drive or hinder market-oriented activity? Without a proper diagnosis of these specific forces, managers cannot choose the best methods with which to enhance their current position. The identification of these factors is of critical importance to top management seeking to initiate organisational change processes directed at building MO.

1.1 Motivation for the Study

The Jaworski and Kohli (1993) study was based on data gathered from US firms. In this paper we use data gathered from Australian firms in an attempt to replicate their findings. Although there is a general acknowledgment that replication studies are important in assessing the validity and generalisability of prior research (Campbell & Jackson 1979), the relative scarcity of replication studies in marketing reflects a tendency to assume that research findings will have validity in other settings (Hubbard & Armstrong 1994). However, in this case, we believe that there is evidence to suggest that the Jaworski and Kohli study may not be as applicable in Australia as in the USA.

We draw on evidence that suggests that there is a distinct Australian business culture, different from that found in the USA, particularly in the area of service delivery and interaction with customers. To illustrate these characteristics of Australian business culture, we first draw on the findings of a round table discussion

on customer management where the participants were business leaders and advisers conducted by Nolan Norton Institute (1999), the research arm of KPMG. We highlight the following comments recorded in the published record of that discussion to reveal a business culture that places a low priority on delivering customer satisfaction:

Let's face it: service is often poor. We expect high churn rates, so firms concentrate on new customers. It's really cowboy behaviour—a part of Australian business culture that's got to change... (Roger Naim, National Australia Bank).

Often Australian firms will focus less on retention than some international companies. We like the 'thrill of the chase' for revenue and market share. Consolidation and locking in customers requires individual and also corporate cultural change... (Peter Whigham, CSR Ltd).

US customer management processes are certainly more developed than in Australia... (Jeremy Duffield, Vanguard Investments).

It is not only in contemporary business that this phenomenon has been noted. Historian Geoffrey Blainey (1996) has argued that Australian business culture has some longstanding features that are problematic for marketing. 'Most Australians had been reared to suspect salesmanship, for it was alien to the pioneering tradition. I suspect this is one of the unfortunate legacies we inherit from earlier eras. Marketing as a skill is now vital for large sectors of Australia's economy but we have not been prepared for this swing in emphasis'.

This type of anecdotal evidence suggests that the interest in and ability to deliver customer service in Australian firms is not strong. Paradoxically however there is evidence that individual Australian service providers are seen as providing high quality service in a distinctively Australian way (Australian Customer Service Association 1996). Conde Nast Traveller magazine has inducted the people of Australia into its Hall of Fame (alongside managers from customer service icons such as Singapore Airways, Four Seasons Hotels and Ritz-Carlton Resorts), describing them as 'the most generous hosts on the planet'.

Kohli and Jaworski's work on market orientation, with its focus on the systems and processes used to gather, use and respond to market information, focuses on the organisational aspects of delivering value for customers, rather than on the individual aspects. Absence of a market orientation on the part of firms would explain this apparent paradox that a nation with a reputation for excellence in customer service as individuals is failing to provide customer service through its organisations.

If this perception is true, and Australian firms succeed despite not having as strong a market orientation as their international equivalents, then some explanation must be found. Rational firms should not deliberately reduce their profitability. Hence our working hypothesis to explain these perceptions is that the relationship between market orientation and performance is not as strong in Australian firms as in US ones.

Several reasons can be advanced for this. First, Australia is a much smaller economy, and in many sectors concentration is extremely high (e.g. retail, brewing, glass manufacture). Market orientation may be rendered less important by market power.

Second, Australia has historically been a less open economy than the USA, and it may be that this has protected local firms from market turbulence or competitive pressure. In either case, the need for firms to stay close to their customers is reduced.

Replicating the Jaworski and Kohli study allows us to test not only the relationship between market orientation and performance, but also investigate whether the same relationships exist between the antecedents and the market orientation of the firm. In the remainder of this paper, we discuss the model of MO proposed by Jaworski and Kohli (1993). Based on this model, we discuss relevant hypotheses. We then describe the research methodology adopted. The results of the study will be examined, and comparison made to the results of the Jaworski and Kohli (1993) study. We conclude by identifying the implications of our results and suggesting areas for future research. We turn now, to the development and integration of the concepts in our model that yield the hypotheses explored in our study.

2. Conceptual Development

Until the 1990s, the call to adopt market-oriented practices was more an article of faith than empirically grounded theory. Early researchers argued that MO was either an organisational culture (Narver & Slater 1990), philosophy (Lichtenthal & Wilson 1992), or set of behaviours (Jaworski & Kohli 1990), that most effectively and efficiently created superior value for the customer and superior business performance for the organisation. The pioneering work of Kohli and Jaworski (1990; 1993) and Narver and Slater (1990; 1994a & b) served as an impetus for subsequent research examining the effect of MO on business profitability.

Throughout the 1990s the marketing literature was replete with studies that focused on the intersection between MO and business performance (Diamantopoulos & Hart 1993; Greenley 1995b; Jaworski & Kohli 1993; Narver & Slater 1990; Ruekert 1992; Caruana & Pitt 1999; Han & Kim 1998). Results of this work have provided empirical evidence that has lent some credibility to faith in MO as a key success factor. However, this was only the beginning of empirical knowledge that was to emerge. Subsequent research examined the strength of the relationship between MO and business performance in varied environmental conditions and found mixed results leading to tentative conclusions (Jaworski & Kohli 1993; Slater & Narver 1994a; Greenley 1995a).

The literature on MO has generated two parallel views of the MO construct. Firstly, Narver and Slater (1990) advocate that MO is comprised of three behavioural components—customer orientation, competitor orientation, inter-functional coordination—and two decision criteria—long-term focus and profitability. They contend that the three behavioural components are of equal importance. Recent work by Oczkowski and Farrell (1998a) suggests that there has been some criticism of the Narver and Slater (1990) scale. Whilst Sigauw and Diamantopolous (1994) question the veracity of the scale itself, Kohli, Jaworski & Kumar (1993) contend that the scale places great emphasis on the role of customers and competition, yet, fails to consider additional factors which drive customer needs and expectations.

The second view developed by Kohli and Jaworski (1990), sought to examine the interest in MO by providing an operational definition and clarifying its domain.

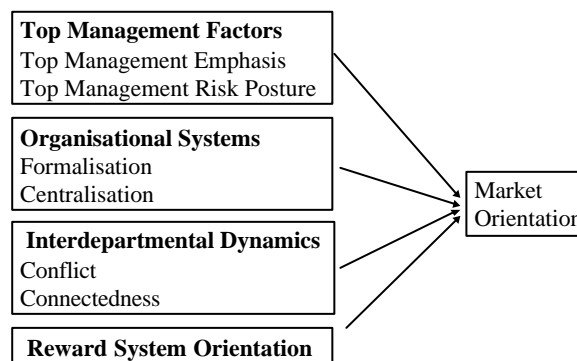
They defined MO as involving the generation, dissemination and responsiveness to information concerning customers and/or competitors. Pelham (1993) and Oczkowski and Farrell (1998b) question the theoretical underpinnings of this scale and comment on its reliability and validity as a true measure of MO. Results of a study by Farrell and Oczkowski (1997) show that the Narver and Slater (1990) measure of MO outperforms the MARKOR scale of Jaworski and Kohli (1993) in relation to criterion validity, reliability and uni-dimensionality.

The relative merits of these approaches and the degree of overlap between them are subject to debate. However, their value is that they define MO in terms of the specific activities that organisations should undertake.

Whilst much of the literature has focussed on the consequences of MO and the assessment of the scales for measuring it, some work has examined its antecedents. If MO contributes to superior business performance, then what internal factors cause some firms to go down that route while others do not? The identification of the principal management behaviours involved is vital to organisations that seek to become market-oriented (Narver & Slater 1990; Jaworski & Kohli 1993; Harris & Piercy 1998). The early work of Jaworski and Kohli (1993) identified distinct organisational capabilities that were characteristic of market-oriented businesses. Their work gave well-deserved attention to the various organisational change efforts directed at building market-oriented organisations (Day 1994). However, the drivers of this process remain understudied and there is still much work to be done in this area.

A conceptual model of MO is shown in figure 1. It identifies the key constructs necessary for the replication of the Jaworski and Kohli study. This paper will discuss four sets of factors—top management, interdepartmental dynamics, organisational systems and reward system orientation—that are hypothesised to affect market-oriented activity. We hypothesised that MO will affect business performance. Finally, the role of factors such as market turbulence, technological turbulence and competitive intensity in moderating the relationship between MO and business performance will also be addressed.

Figure 1
Antecedents of Market Orientation



3. Hypotheses

The hypotheses generated from the Jaworski and Kohli framework are presented below. Underlying our research is the suggestion that if the Australian business

culture is significantly different from that of the USA, the results that emerge from testing these hypotheses will be significantly different from the results found in the USA. As Jaworski and Kohli (1993) provide a detailed discussion of the rationale underlying these hypotheses, only a brief summary is provided here. The replication hypotheses and a list of authors who have conducted such research are presented in table 1. To foreshadow the measurement results, because factor analysis did not clearly distinguish between the acquisition, dissemination and responsiveness dimensions, we do not make hypotheses with regard to the dimensions of MO, but only MO overall. Moreover, the overall MO results are of greatest interest and the clearest to interpret.

3.1 Market Orientation and Performance

H1: The greater the market orientation of an organisation the higher its business performance.

Several empirical studies have found a strong positive relationship between MO and performance, whether one looks at consumer products, new products, innovation or services. There is however, a small body of evidence that does not support a strong positive relationship between MO and business performance, whilst other research examines alternative forms of market orientation and their impact on performance (Oczkowski & Farrell 1998a & b). For details on the literature examining this relationship please refer to table 1.

3.2 Antecedents to a Market Orientation

Jaworski and Kohli (1993) identified three categories of antecedents to MO that were labelled as senior management factors, interdepartmental dynamics and organisational systems. These antecedents act as drivers or obstacles of MO, resulting in some organisations being more market-oriented than others. For details on the literature examining these relationships refer to table 1. The antecedents to MO identified by Jaworski and Kohli (1993) are:

1. Top Management Emphasis

H2a: The greater the top management emphasis on market orientation, the greater the overall market orientation of the organisation.

Top management plays a critical role in moulding organisational values and fostering MO. The researchers who have examined the notion of top management emphasis are listed in table 1. The development of MO should start with leadership from the CEO. In addition to management's mere involvement, the necessity of communicating a commitment to being market-oriented has been dealt with extensively. Levitt (1969) suggests that continuous reinforcement by senior management is required if individuals within the organisation are to be encouraged to generate, disseminate and

Table 1
Replication Hypotheses

Supporting Literature	Replication Hypotheses
<i>Consequences of Market Orientation</i>	
Diamantopoulos and Hart (1993) Greenley (1995b) Narver and Slater (1990) Slater and Narver (1994a) Jaworski and Kohli (1993) Oczkowski and Farrell (1998a)	H1: The greater the market orientation of the firm, the higher its business performance.
<i>Moderators of the Market Orientation-Business Performance Relationship</i>	
Jaworski and Kohli (1993)	H2a: The greater the market turbulence, the stronger the relationship between a market orientation and business performance. H2b: The greater the competitive intensity, the stronger the relationship between a market orientation and business performance. H2c: The greater the technological turbulence, the stronger the relationship between a market orientation and business performance.
<i>Antecedents to Market Orientation</i>	
Top Management Emphasis Felton (1959) Levitt (1969) Slater and Narver (1994b) Webster (1988) Jaworski and Kohli (1993)	H3a: The greater the top management emphasis on market orientation, the greater the overall market orientation of the organisation.
Risk Aversion Allaire and Firsirotu (1984) Dandridge, Mitroff and Joyce (1980) Deshpande and Webster (1989) Johnston (1976) Jaworski and Kohli (1993)	H3b: The greater the risk aversion of top management, the lower the overall market orientation of the organisation.
Interdepartmental Conflict Pondy (1967) Raven and Kruglanski (1970) Dutton and Walton (1966) Kohli and Jaworski (1990) Jaworski and Kohli (1993) Ruekert and Walker (1987)	H3c: The greater the interdepartmental conflict, the lower the overall market orientation of the organisation.
Interdepartmental Connectedness Stern and Reve (1980) Blake and Mouton (1964) Lawrence and Lorsch (1967) Deshpande and Zaltman (1982) Jaworski and Kohli (1993)	H3d: The greater the interdepartmental connectedness, the greater the overall market orientation of the organisation.
Organisational Systems of Formalisation and Centralisation Jaworski and Kohli (1993)	H3e: The greater the formalisation, the lower the overall market orientation of the organisation. H3f: The greater the centralisation, the lower the overall market orientation of the organisation.
Reward System Orientation Webster (1988) Anderson and Chambers (1985) Jaworski (1988) Sigauw, Brown and Widing (1994) Jaworski and Kohli (1993)	H3g: The greater the reliance on market based factors for evaluating and rewarding managers, the greater the overall market orientation of the organisation.

respond to market intelligence. Slater and Narver (1994b) also identify general guidelines for managers seeking to initiate customer value strategies: top management must play a facilitative role through the communication of certain guidelines and encourage contributions from employees.

2. Top Management Risk Posture

H2b: The greater the risk aversion of top management, the lower the overall market orientation of the organisation.

Risk posture refers to top management's risk seeking or risk averse tendencies. Kohli and Jaworski (1990) and Jaworski and Kohli (1993), assert that the symbolism viewed in senior management's willingness to take risks will encourage and facilitate organisation wide commitment to innovation and responsiveness. On the other hand, a risk aversion policy adopted by senior management will tend to inhibit the process.

These propositions have their origins in marketing symbolism. Deshpande and Webster (1989) address the issue of marketing symbolism, a cultural paradigm that stems from symbolic organisation theory. They identify the culture of an organisation as a metaphor of shared symbols and meanings, in line with the literature in organisational theory (Allaire & Firsirotu 1984; Johnston 1976). Dandridge, Mitroff and Joyce (1980) refer to organisational symbols as subjective elements of organisational life and a frame of reference.

3. Interdepartmental Conflict

H2c: The greater the interdepartmental conflict, the lower the overall market orientation of the organisation.

Several writers (Levitt 1969, Lusch & Laczniak 1987) emphasise that interdepartmental conflict may be detrimental to the implementation of MO. Frustration results when individuals believe that the other party is not behaving in a fair manner (Ruekert & Walker 1987). Interdepartmental conflict also has the potential to contribute to breakdowns in communication, secrecy and in-bred competition. Research has also suggested that conflict may result in reduced inter-functional performance (Weinrauch & Anderson 1982; Dutton & Walton 1966). Levitt (1969) and Felton (1959) refer to interdepartmental conflict as being dysfunctional since it acts as an inhibitor of MO (Jaworski & Kohli 1993).

4. Interdepartmental Connectedness

H2d: The greater the interdepartmental connectedness, the greater the overall market orientation of the organisation.

Connectedness between departments facilitates interaction and the exchange of information (Ruekert & Walker 1987). Deshpande and Zaltman (1982) postulate that connectedness enables adequate amounts of intelligence to be generated and also allows for its appropriate utilisation. The perception of an organisation as being comprised of different but interdependent departments and functions, together with the availability of conflict resolution mechanisms, facilitates the open flow of resources, work and assistance across all organisational departments (Ruekert & Walker 1987; Blake & Mouton 1964;

Lawrence & Lorsch 1967). Based on this reasoning, Jaworski and Kohli (1993) postulate that interdepartmental connectedness fosters an interdependency within the organisation and encourages employees to act in a 'concerted' manner in the processes of knowledge generation and knowledge utilisation.

5. Formalisation and Centralisation

H2e: The greater the formalisation, the lower the overall market orientation of the organisation.

H2f: The greater the centralisation, the lower the overall market orientation of the organisation.

Jaworski and Kohli (1993) suggest that organisational dimensions such as formalisation, centralisation and departmentalisation tend to hinder the generation and dissemination of information and the design of organisational response.

The formalisation of behaviour represents an organisation's way of prescribing discretion (Mintzberg, Raisinghani & Theoret 1976). Therefore, it is the design parameter by which the work processes of an organisation are standardised. Centralisation represents a situation in which all the power for decision-making rests at a single point within the organisation. Aiken and Hage (1966) refer to centralisation as being the inverse of the amount of delegation of decision-making authority throughout an organisation and the extent of participation by organisational members in decision-making. The bureaucracy that often results from the above dimensions contributes to heightened levels of uncertainty, interdepartmental conflicts and competition, a breakdown in communication flows and delays in decision-making.

6. Rewards System Orientation

H2g: The greater the reliance on market-based factors for evaluating and rewarding managers, the greater the overall market orientation of the organisation.

In recent literature, it has been shown that reward systems are instrumental in shaping the behaviour of employees (Anderson & Chambers 1985; Jaworski 1988; Sigauw, Brown & Widing 1994). The type of measurement and reward systems adopted by the organisation will determine the extent to which MO is adopted. Webster (1988) postulated that a basic requirement for the development of a market-oriented firm is the creation of market-based measures of performance; an assertion that was empirically proven by Sigauw, Brown and Widing (1994). Their research concluded that market-based reward systems were essential in achieving MO. Furthermore, the research showed that this type of reward system significantly reduces role conflict and job ambiguity. The evaluation of employee performance through sales volume, short term profitability and rate of return measures led them to focus solely on these aspects of performance to the exclusion of market factors such as customer satisfaction and service levels. By comparison, organisations that evaluate and administer rewards based on customer satisfaction and service levels are more likely to encourage the active generation and dissemination of market intelligence and responsiveness to market needs.

3.3 *The Moderating Role of the Environment*

H3a: The greater the market turbulence, the stronger the relationship between a market orientation and business performance.

H3b: The greater the competitive intensity, the stronger the relationship between a market orientation and business performance.

H3c: The greater the technological turbulence, the weaker the relationship between a market orientation and business performance.

Scholars have suggested that a competitive environment could play a moderating role in the relationship between MO and performance (Kohli & Jaworski 1993). The Jaworski and Kohli (1993) study did not lend support to the hypothesised moderating effects for any of the three moderator variables. The authors concluded that the relationship between MO and business performance appeared to be consistent across situations characterised by varying levels of market turbulence, competitive intensity and technological turbulence. Greenley (1995b) found that: (1) market turbulence weakens the relationship between MO and business performance; and (2) technological turbulence weakens the relationship between MO and performance, when performance is assessed using new product success. Slater and Narver (1994a) also examined how the competitive environment influences the form and effectiveness of an organisation's MO. The results provide limited support for competitive environment on this relationship. The benefits derived from MO are generally long term whilst the environment is a transient factor. Therefore, Slater and Narver (1994a) state that being market-oriented is cost effective in spite of possible short term moderating effects of the environment.

4. **Research Methodology**

Data were collected in a natural business setting by means of a self-administered mail questionnaire. Key respondent techniques were employed in the collection of data as the survey instrument was specialised. The identification of key respondents was based on a procedure undertaken by Robertson, Eliashberg and Rymon (1995). A strategic business unit (SBU) served as the unit of analysis in this study and the manager was requested to base the information on the SBU in which he or she worked.

The questionnaire was pretested by application to managers attending an executive development programme on marketing strategy, and on selected MBA students with relevant prior experience. Respondents were asked to identify items they found unclear or confusing, and student respondents were interviewed about their interpretation of items. As a result of the pretest, minor adjustments were made to the questionnaire.

Our sampling strategy differed from that of Jaworski and Kohli. In their study, companies were identified from Marketing Science Institute (MSI) and American Marketing Association (AMA) membership rosters, and the top 1000 US companies as listed in a Dunn and Bradstreet directory. Since Australian professional marketing organisations cannot be directly compared with the MSI and AMA, replicating this strategy was not possible. For example, a study using the Australian Marketing

Institute (AMI) database (Styles & Uncles 1998) lead to a data set that had much higher representation of small firms than in the Kohli and Jaworski studies (small firm bias reported in private communication with the authors).

Our sampling plan sought to ensure that companies operating in diverse industry settings were included. Industries were selected to cover both high and low technology environments, and companies identified using the Kompas Directory. The industries covered and their representation in the sample were: pharmaceuticals (29%); mining (14%); agriculture (17%); meat and game (3%); pottery and glassware (10%); milk and milk products (10%); and furniture (5%). The sample profile also showed that all Australian states were represented. Because Kohli and Jaworski had focused one of their data sets on larger firms, we sought to ensure that we were not gathering a substantially different firm demographic. Classified in terms of size, 40% of the respondents employed 400 employees or less, 26% employed between 400 and 1000 employees and the remaining 34% had over 1000 employees. Our sample therefore contained a significant proportion of larger firms. Hence, the sample showed good diversity in terms of geographic location, industry and firm size.

The total sampling frame consisted of 505 companies. The overall response was 31% (157 questionnaires), but the total useable number was 105 (21%). Early respondents were compared with late respondents on variables such as overall performance, MO level and commitment to MO, to determine non-response bias (Armstrong & Overton 1977). No significant differences were found. Analysis of the geographic distribution of responses to the initial and follow-up mail outs also showed no significant differences. Accordingly, non-response bias was not a problem.

4.1 Measures and Survey Instrument

In examining the relationship between the antecedents to MO, market orientation is the major dependent variable. The MO construct was measured using the seven point MARKOR scale of Kohli, Jaworski and Kumar (1993). An increase from five to seven or nine point scales results in less variation on re-tests and improves the reliability of the ratings (Crask & Fox 1987).

The independent measures in this relationship are as follows: top management emphasis; interdepartmental conflict; interdepartmental connectedness; formalisation; centralisation; risk aversion; and reward system orientation which are those used by Jaworski and Kohli.

In examining the relationship between MO and business performance, performance is the dependent variable. Based on Jaworski and Kohli, performance was measured through self-assessment using a seven point Likert scale. The moderator of environmental context was based on those developed in the Jaworski and Kohli study. The scales used in the study are listed in the appendix.

4.2 Measure Validation

Measure validation was performed in two phases. All items were examined for internal validity. Items with low inter-item correlations were reviewed for their theoretical importance and deleted if they added no value to the scale. Second, scale reliability was measured using the Cronbach alpha coefficient. All refined scales have acceptable to high reliability coefficients that exceed the levels recommended by

Peter (1979). Each scale had between three and seven items and the resulting Cronbach's alpha ranged from 0.65 to 0.93.

Exploratory factor analysis (principal components extraction with oblique rotation to allow factors to correlate) was used to provide a broad indication of the performance of the MARKOR scale. The results were disappointing. Using an eigenvalue greater than 1 as the cut off, a six factor solution resulted, with little intelligible structure (see table 2). When a three-factor solution was requested, again, loading was not clean, and the resulting factors captured only 48% of the variance.

Table 2
The MARKOR Scale:
Factor Analysis—Pattern Matrix

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Generation B1	0.83	-0.02	0.05	0.00	0.07	-0.01
Generation B2	0.69	0.02	0.13	-0.01	0.02	-0.16
Generation B3	0.01	-0.01	0.01	-0.79	0.01	-0.16
Generation B4	0.14	0.03	0.09	-0.77	0.05	0.14
Generation B5	0.03	-0.10	-0.10	0.03	0.89	-0.07
Generation B6	0.24	-0.17	0.22	-0.20	0.09	-0.51
Dissemination A1	-0.11	0.19	0.57	-0.31	-0.07	-0.14
Dissemination A2	-0.22	0.59	0.16	0.05	0.18	-0.25
Dissemination A3	0.04	0.03	0.84	0.04	-0.05	-0.11
Dissemination A4	0.16	0.65	-0.08	0.29	0.03	-0.25
Dissemination A5	0.19	0.02	0.54	-0.02	0.57	0.19
Response Design C1	-0.26	0.09	0.00	-0.11	0.12	-0.64
Response Design C2	0.17	0.12	0.10	0.11	0.02	-0.77
Response Design C3	0.34	0.68	0.11	-0.01	-0.02	0.07
Response Design C4	0.62	0.25	-0.01	-0.28	0.11	0.09
Response Design C5	0.44	-0.09	-0.08	-0.36	-0.03	-0.22
Response Design C6	0.34	0.28	-0.07	-0.26	-0.02	-0.25
Response Implement C7	-0.17	0.34	-0.38	-0.22	0.40	-0.23
Response Implement C8	0.12	0.01	-0.02	0.00	-0.01	-0.78
Response Implement C9	-0.11	0.75	0.05	-0.21	-0.07	0.07

Further investigation was attempted using confirmatory factor analysis. Five alternative models were estimated. A three factor model, a single factor model, and three models where the covariance between two of the factors was set to unity in a pairwise manner (e.g. the three factor model was reduced to two factors by combining each pair of factors in turn). The results did not give great confidence in the scale's validity. All variables had positive and significant coefficients in all models ($t > 1.8$) and all models had mediocre goodness of fit indices ($CFI < 0.86$). Setting the covariance between two factors to unity, rather than leading to declining fit and to a significant increase in chi squared in all cases, actually led to a fall in chi

square when intelligence generation and responsiveness were combined, indicating no discriminant validity.

In short, we found no evidence supporting any definite underlying factor representation of the MARKOR scale as reported by Kohli, Jaworski & Kumar (1993). A tight connection between the scale items and a lack of distinction between activities of information generation, dissemination and responsiveness did not establish discriminant validity, even though the internal consistency of the overall scale was high ($\alpha = 0.87$), indicating a high level of homogeneity among items comprising the scale. In reporting this finding, we note that other authors (Pelham 1993; Oczkowski & Farrell 1998b) have also reported problems with this scale. Taken together, these findings suggest that future research must clarify several substantive and application issues associated with the MARKOR scale.

Having noted these problems, we computed a MO score that was the unweighted sum of the three components of generation, dissemination and responsiveness, as in the Jaworski and Kohli study. While the factor structure of the MARKOR model is poor, the items do measure the range of activities associated with market orientation as identified in the literature. Hence, it provides a reasonable measure of market orientation, with high reliability, despite its constituent components not separating as hypothesised. Therefore, while we use only the composite measure, and do not analyse the relationships at the factor level, the overall measure still provides a useful indication of market orientation.

5. Results

5.1 Consequences of Market Orientation

We tested H1 by regressing business performance on MO (see table 3). Our results show that MO is significantly related to business performance ($\beta = 0.57$, $p = 0.000$). This finding lends substantial support to the Jaworski and Kohli results, confirming that MO has a significantly positive effect on performance. Therefore, H1 is supported.

Chow tests were undertaken to examine the proposed moderator effects on the MO-performance relationship. We found that market turbulence was a moderating factor. A significant Chow test indicated that the regression coefficient for the relationship between MO and business performance was significantly larger for the half of the sample reporting higher levels of market turbulence than for the half reporting lower levels of market turbulence (low = 0.26, high = 0.72). The corresponding tests for competitive intensity (low = 0.54, high = 0.60) and technological turbulence (low = 0.57, high = 0.60) were not significant. Hypothesis 3a is therefore accepted, and hypotheses 3b and 3c rejected. Jaworski and Kohli found no significant effects of the hypothesised moderators on the relationship between MO and business performance. Results are reported in table 3.

Table 3
Overall Market Orientation and Performance

Sample type	Adjusted R^2	Parameter Estimate Market Orientation		Chow Test
		Unstandardised	Standardised	
Full Sample ($N = 103$)	32.3	0.79	0.57 ($p = 0.00$)	
Low Technical Turbulence ($N = 52$, mean = 3.52)	31.1	0.72	0.54 ($p = 0.00$)	$F = 2.93$ ($p = 0.06$)
High Technical Turbulence ($N = 50$, mean = 4.04)	35.0	0.94	0.60 ($p = 0.00$)	
Low Competitive Intensity ($N = 51$, mean = 3.50)	27.8	0.69	0.57 ($p = 0.00$)	$F = 1.44$ ($p = 0.24$)
High Competitive Intensity ($N = 51$, mean = 5.33)	34.2	0.91	0.60 ($p = 0.00$)	
Low Market Turbulence ($N = 52$, mean = 2.88)	5.1	0.33	0.26 ($p = 0.00$)	$F = 5.45$ ($p = 0.01$)
High Market Turbulence ($N = 52$, mean = 4.64)	51.3	1.07	0.72 ($p = 0.00$)	

5.2 *Antecedents of Market Orientation*

In reporting their analysis, Jaworski and Kohli do not clearly state the nature of the regression analysis they carried out on the antecedents. On one hand, their narrative description of the process (pp. 60–1) suggests that they used a direct entry method, but the tables of results (their tables 1 & 2) suggest that they used a stepwise process. We report both methods (direct entry table 4, stepwise table 5). There is one difference between our findings between these two methods, and we discuss this below.

Overall, the results (see tables 4 & 5) suggest that several factors affect market-oriented activity. Top management emphasis is significantly related to overall MO ($\beta = 0.20$, $p = 0.02$). This provides support for the propositions of Jaworski and Kohli and is in agreement with their findings. Top management emphasis plays a crucial role in the development of MO. The development of MO should commence with sound resolve, communication and commitment from the CEO. Hypothesis 2a is therefore supported.

Interdepartmental conflict inhibits overall MO ($\beta = -0.36$, $p = 0.000$), as was expected. Again, these results substantially corroborate the results of the Jaworski and Kohli study. High levels of conflict can create barriers between departments, affecting the flow of communication and the exchange of information. There is support for Hypotheses 2c.

Table 4
Antecedents of a Market Orientation:
Direct Entry Regression Dependent Variable;
Overall Market Orientation

	Current Study	
	<i>b</i>	<i>p</i>
Top Management Emphasis	0.21	0.02
Risk Aversion	0.07	0.34
Interdepartmental Conflict	-0.37	0.00
Interdepartmental Connectedness	0.17	0.09
Formalisation	-0.05	0.56
Centralisation	0.04	0.71
Reward System	0.19	0.02
R^2	0.49	
N	101	

Table 5
Antecedents of a Market Orientation:
Stepwise Regression Dependent Variable;
Overall Market Orientation

	Current Study		JK Study USA 1	JK Study USA 2
	<i>b</i>	<i>p</i>		
Top Management Emphasis	0.21	0.01	0.24***	0.24***
Risk Aversion	ns	–	ns	ns
Interdepartmental Conflict	-0.37	0.00	-0.17*	-0.28***
Interdepartmental Connectedness	0.19	0.03	0.20**	0.22**
Formalisation	ns	–	ns	ns
Centralisation	ns	–	-0.22**	ns
Reward System	0.20	0.02	0.30***	0.31***
R^2	0.50		0.63	0.58
N	101		134	123

Note: *** $p < 0.001$

** $p < 0.01$

* $p < 0.05$

Interdepartmental connectedness is not found to be significant in the direct entry regression analysis (table 4), but in a stepwise analysis (table 5), it is found to contribute to significantly higher levels of MO ($\beta = 0.19$, $p = 0.03$). The increase in significance appears to be the result of removing from the regression two

antecedents which are significantly correlated with connectedness, formality ($r = -0.43$, $p = 0.00$) and centralisation ($r = -0.56$, $p = 0.00$). Interdepartmental connectedness increases the ability of firms to act in a consistent and concerted manner towards their customers. This result is consistent with the Jaworski and Kohli results. Therefore, there is partial support for Hypothesis 2d.

A reward system orientation based on customer satisfaction contributes to significantly higher levels of MO ($\beta = 0.15$, $p = 0.02$). The Jaworski and Kohli results found that reward system orientation also significantly affects the level of intelligence generation and dissemination. Reward systems that are focused on customer satisfaction encourage employees to be responsive to market needs. Therefore, there is support for Hypothesis 2g.

Regression coefficients for risk aversion, formalisation, and centralisation were not significant in either analysis, so Hypotheses 2b, 2e and 2f are rejected.

Comparing these results with those from the USA, we are struck by the convergence in the results from the two countries, as shown in table 5. Firstly, the pattern of significance for Australia is the same as their second sample and, due to the difference between their two sets of results, differs in the significance of one coefficient for the pattern for their first sample. We take this pattern of results as strongly indicative of the consistency of the market orientation-antecedent relationship across the two settings.

6. Discussion

6.1 Implications for Managers

Superior profitability can be achieved by undertaking market-oriented activity. As in the US, the management of Australian organisations can secure fundamental changes in performance by providing high quality products, supported by market-oriented features such as regular tracking, information exchange and a strong market sensing capability. Organisations are gradually recognising the value of MO to business performance.

It is imperative that organisations be highly market-oriented in conditions of market turbulence. In such conditions, management must undertake market-oriented activity whilst maintaining the flexibility to shift resources and adapt to potentially viable market trends. A focus must be placed on listening and responding to customer needs. A failure to adapt can render an organisation competitively unstable. Qantas Airways recognises the importance of listening and responding in a highly competitive industry. The company focuses on listening and responding to information gleaned about the market and competitors. Using market research studies the company embarked on a series of changes for the year 2000. The progressive refit of the entire Qantas fleet by 2000 for added comfort and the new e-ticketing system are symbols of Qantas' commitment to its customers. 'It also represents a new airline and, within 12 months of that, the 'new Australia', republic or no republic. Getting that association with the Centenary of Federation and the excitement of the Sydney Games and the millennium just right has been an obsession inside Qantas since the 'flying toward and beyond 2000' marketing program began two years ago' (Sandilands 1998). It is in ways such as this, that Qantas is trying to achieve customer satisfaction and show its commitment to its customer base.

Market-oriented activity can be enhanced by the manipulation of certain factors. Top management's actions can foster market-oriented activity through the provision of necessary training and resources, employee motivation and support, informal meetings with a focus on market-oriented activity and suggestion boxes to encourage the sharing of market based ideas. Being market-oriented begins with top management's commitment and focus to MO. The importance of being market-oriented needs to be communicated throughout an organisation. For example, Dennis Eck, CEO of Coles Myer says: 'I am always telling our people to think complete thoughts about product categories, to think about everything: suppliers, staff, store environment, products, services, and so on' (Shoebidge 1998a). This attitude has created a new level of enthusiasm among Coles Myer management. One veteran executive says: 'Dennis encourages us to be innovative and take acceptable risks. A few years ago, you would have been fired for suggesting some of the ideas he has come up with' (Shoebidge 1998a). The role of top management is crucial in inspiring and garnering support for the implementation of MO.

Reward systems that are based on customer satisfaction assessments enhance market-oriented activity. Hence, the onus is on the firm to provide the resources, motivation and appropriate rewards that encourage rather than discourage market-oriented activity. Organisations in service industries are beginning to realise the value of rewarding their employees based on levels of customer satisfaction.

Whilst top management and appropriate rewards are important, it appears that connectedness between departments also plays a significant role in determining the level of market-oriented activity. Jaworski and Kohli (1993) recommend the physical closeness of departments in addition to technological links such as voice mail and computer hookups. Also, informal meetings can be held to facilitate communication and the exchange of information, an open door policy can be encouraged to open all channels of communication and interdepartmental work teams can be formed. For example, Bankers Trust is revamping its organisation to reduce competition between divisions and develop unilateral lines of communication with clients. Pacific Dunlop has recently introduced a new international video conferencing system that has greatly improved the speed of decision-making within the firm (Wood 1998). Roger Eustace (Group Executive—Corporate, Pacific Dunlop) says: 'it helps us get the right people in a meeting at the right time. Decisions are made quickly so we can move ahead with the speed of a small organisation. Where interpreting reactions and personal interaction are crucial, the video conference system is needed' (Banaghan 1998). Information exchange between functions and departments is crucial to implementing MO.

Managers also need to be vigilant of several factors that hinder market-oriented activity. A factor that affects market-oriented activity is interdepartmental conflict. Although some conflict is inevitable, it is important for management to control its exacerbation through methods such as cross functional activities and training, a focus on overall objectives, alignment of departmental objectives and a sense of synergy and commitment within the organisation.

6.2 *Limitations and Future Research Directions*

The limitations of our research should also be considered when interpreting the findings because they point to directions for future research.

As with most research, limitations associated with sampling can temper the generalisability of results. Specifically, improved measures and a larger sample would have allowed for greater faith in the propositions and results. The MARKOR scale in the Jaworski and Kohli study needs additional work to improve reliability and validity in varied contexts. According to our validation analysis, the scale currently does not allow for the discrimination of the three components of MO. The results of our hypothesis might be different, if more precise and valid measures were used.

Although we conducted a cross sectional study, the dynamism of the constructs might have been captured more precisely using a longitudinal approach. Cross sectional studies do not reflect the uninterrupted transformations that may affect the interplay between constructs. For example, a lack of market-oriented activity may lead top management to emphasise the need for market-oriented activity which in turn, contributes to a higher level of MO.

Much additional study of performance effects is needed. Despite a vast body of research on performance, the impact of market-oriented activity on a broader spectrum of performance measures is yet to be explored. In that process, research is needed to determine how MO relates to aspects of performance such as self assessment performance measures, quantitative performance measures, job satisfaction, organisational commitment, role clarity, self esteem and the many other components measuring an organisation's overall performance.

Future research might examine the notion of a commitment to MO. Does a commitment to MO trigger market-oriented activity? Just as important is the reverse situation, does the programmatic implementation of market-oriented activity create a positive attitude towards being market-oriented? The causal nature of relationships between all constructs should be investigated, so that the directionality of the relationships can be better understood. Also, additional studies might examine more fully a complete set of antecedents that influence the MO of the firm. The relative importance and appropriate mix of factors engendering market-oriented activity could be determined to allow for prescriptive models of MO.

The evaluation an organisation's MO should come from its customers rather than the company alone. A possibility for future research is to compare self-reports with customer reports on MO to test whether either is significantly related to business performance. Deshpande, Farley and Webster (1993) recommend the institutionalisation of customer evaluations as part of a regular tracking mechanism. This allows for a more accurate determination of the actual level of MO and prevents biases associated with self-assessment. Examining these and other issues would contribute significantly to the current body of evidence.

Finally, MO has been discussed by researchers as a solitary dimension; a guaranteed formula for enhanced performance. However, adopting such a long term and narrow view of it can place limits on the enhancement of academic knowledge. Future research could attempt to break the norm of current research by identifying alternative market based practices that might be viable sources of competitive advantage in the future.

7. Conclusions

The object of this article is to replicate a conceptual model within the Australian business environment, which could serve as a point of reference for researchers studying MO and for managers seeking to initiate market-oriented activity. The Jaworski and Kohli (1993) results on the outcomes and antecedents to a market orientation have been successfully replicated in Australia. Specifically, all antecedents that were found to be significant by Jaworski and Kohli including leadership, inter-departmental conflict, inter-departmental connectedness, reward systems based on customer satisfaction, were all either significantly or marginally significantly related to MO. In addition, a strong positive relationship was found between MO and business performance. Interestingly, Jaworski and Kohli found no moderating effect due to environmental factors; but we did find a significant effect of market turbulence on the relationship between MO and performance. That is, higher levels of market turbulence lead to a stronger relationship between market orientation and business performance, as hypothesised. Overall, our conclusions are clear; for researchers and commentators, we conclude that the business environment and consumer behaviour that allows firms to claim superior rewards from customers through market orientation in the USA is also in place in Australia. For Australian managers, we offer a strong message; that given the evidence in this research and previous articles, developing a market orientation is likely to enhance business performance.

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Appendix

Scale Items

Dimension	Item Description
Market Orientation (Intelligence Generation) ($\alpha = 0.65$)	<ol style="list-style-type: none"> 1. In this business unit, we meet with customers at least once a year to find out what products or services they will need in future. 2. In this business unit, we do a lot of in-house market research. 3. We are slow to detect changes in our customers' product preferences. 4. We poll end users at least once a year to assess the quality of our products and services. 5. We periodically review the likely effect of changes in our business environment (e.g. regulation) on our customers.
Market Orientation (Intelligence Dissemination) ($\alpha = 0.74$)	<ol style="list-style-type: none"> 1. We have interdepartmental meetings at least once a quarter to discuss market trends and developments. 2. Marketing personnel in our business unit spend time discussing customers' future needs with other functional departments. 3. When something important happens to a major customer or market, the business unit knows about it within a short period. 4. Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis.
Market Orientation (Response Design) ($\alpha = 0.72$)	<ol style="list-style-type: none"> 1. For one reason or another, we tend to ignore changes in our customers product or service needs. 2. We periodically review our product development efforts to ensure that they are in line with what customers want. 3. Several departments get together periodically to plan a response to changes taking place in our business environment. 4. If a major competitor launched an intensive campaign targeted at our customers, we would implement a response immediately.
Market Orientation (Response Implementation) ($\alpha = 0.66$)	<ol style="list-style-type: none"> 1. The activities of the different departments in this business unit are well coordinated. 2. Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion. 3. When we find that customers would like us to modify a product or service, the departments involved make a concerted effort to do so.
Market Turbulence ($\alpha = 0.59$)	<ol style="list-style-type: none"> 1. In our kind of business, customers' product preferences change quite a bit over time. 2. Our customers tend to look for new products all the time. 3. Sometimes our customers are very price sensitive, but on other occasions, price is relatively unimportant.
Technological Turbulence ($\alpha = 0.80$)	<ol style="list-style-type: none"> 1. The technology in our industry is changing rapidly. 2. Technological changes provide big opportunities in our industry. 3. It is very difficult to forecast where the technology in our industry will be in the next 2 to 3 years. 4. A large number of new product ideas have been made possible through technological breakthroughs in our industry. 5. Technological developments in our industry are rather minor.

Dimension	Item Description
Competitive Intensity ($\alpha = 0.69$)	<ol style="list-style-type: none"> 1. Competition in our industry is cutthroat. 2. There are many promotion wars in our industry. 3. Anything that one competitor can offer, others can match readily. 4. Price is a hallmark of our industry. 5. One hears of a new competitive move almost every day.
Conflict ($\alpha = 0.78$)	<ol style="list-style-type: none"> 1. When members of several departments get together, tensions frequently run high. 2. People in one department generally dislike interacting with those from another department. 3. Employees from different departments feel that the goals of their respective departments are in harmony with each other. 4. Protecting one's departmental turf is considered to be a way of life in this business unit. 5. The objectives pursued by the marketing department are incompatible with those of the manufacturing department. 6. There is little or no interdepartmental conflict in this business unit.
Connectedness ($\alpha = 0.75$)	<ol style="list-style-type: none"> 1. In this business unit, it is easy to talk with virtually anyone you need to, regardless of rank or position. 2. There is ample opportunity for hall talk among individuals from different departments in this business unit. 3. In this business unit, employees from different departments feel comfortable calling each other when the need arises. 4. Managers here discourage employees from discussing work related matters with those who are not their immediate superiors or subordinates. 5. People around here are quite accessible to those in other departments. 6. Junior managers in my department can easily schedule meetings with junior managers in other departments.
Formalisation ($\alpha = 0.71$)	<ol style="list-style-type: none"> 1. I feel that I am my own boss in most matters. 2. A person can make his own decisions without checking with anybody else. 3. How things are done here is left up to the person doing the work. 4. People here feel as though they are constantly being watched to see that they obey all the rules.
Centralisation ($\alpha = 0.80$)	<ol style="list-style-type: none"> 1. There can be little action taken until a supervisor approves. 2. A person who wants to make his own decision would be quickly discouraged here. 3. Even small matters have to be referred to someone higher up for a final answer. 4. I have to ask my boss before I do almost anything. 5. Any decision I make has to have my boss' approval.
Reward System Orientation ($\alpha = 0.76$)	<ol style="list-style-type: none"> 1. No matter which department they are in, people in this business unit get recognised for being sensitive to competitive moves. 2. Customer satisfaction assessments influence senior managers' pay in this business unit. 3. Formal rewards (i.e. pay raise, promotion) are forthcoming to anyone who consistently provides good market intelligence. 4. Salespeoples' performance in this business unit is measured by the strength of the relationship they build with customers. 5. We use customer polls for evaluating our salespeople.

Dimension	Item Description
Top Management Emphasis ($\alpha = 0.80$)	<ol style="list-style-type: none"> 1. Top managers repeatedly tell employees that this business unit's survival depends on its adapting to market trends. 2. Top managers often tells employees to be sensitive to the activities of our competitors. 3. Top managers keep telling people around here that they must gear up now to meet customers' future needs. 4. According to top managers here, serving customers is the most important thing our business unit does.
Risk Aversion ($\alpha = 0.72$)	<ol style="list-style-type: none"> 1. Top managers in this business unit believe that higher financial risks are worth taking for higher rewards. 2. Top managers in this business unit like to take big financial risks. 3. Top managers here encourage the development of innovative marketing strategies, knowing well that some will fail. 4. Top managers in this business unit like to play it safe. 5. Top managers around here like to implement plans only if they are very certain that they will work.
Business Performance ($\alpha = 0.93$)	<ol style="list-style-type: none"> 1. Overall performance of the business unit last year. 2. Overall performance of the business unit relative to major competitors last year. 3. The return on investment of the business unit relative to all competitors last year. 4. The sales of the business unit relative to all competitors last year. 5. The overall performance of the business unit last year, in comparison with what was expected.
Key Respondent Knowledge and Ability ($\alpha = 0.88$)	<ol style="list-style-type: none"> 1. Within your business unit, to what extent are you responsible for the achievement of a market orientation? 2. Within your business unit, to what extent are you responsible for making and implementing marketing strategy?

