THE RELATIONSHIP BETWEEN EMPLOYEE COMMITMENT AND MARKET ORIENTATION

Existing literature seems to disagree on exactly what role employee commitment plays in the market orientation-performance relationship. This paper hypothesises that employee commitment is an antecedent to market orientation; it moderates the strength of the relationship between top management emphasis on market orientation, and mediates the relationship between a market based reward system and market orientation. Hypotheses were tested with data from a national survey.

Introduction

Since Narver & Slater (1990) and Kohli & Jaworski (1990) identified antecedents and consequences of market orientation in their respective research, the concept of market orientation has received tremendous attention from marketing researchers and practitioners. Over the past decade, researchers have studied numerous additional variables. However, the market orientation – performance relationship model is far from comprehensive and complete. The purpose of this paper is to analyze the relationship between employees’ organizational commitment (hereinafter referred to as “employee commitment”) and market orientation. We propose that employee commitment is an antecedent to market orientation; it moderates the strength of the relationship between top management emphasis and market orientation, and mediates the relationship between market based reward system and market orientation (see Figure 1 for proposed model).

Figure 1: Proposed model

Our paper first reviews the existing literature on this subject, and provides an empirical model and tests of hypothesized relationships and causal directions.

Literature review

Market Orientation

Kohli and Jaworski (1990) define market orientation as the organization-wide information generation, dissemination, and appropriate response related to current and future
customer needs and preferences. Narver and Slater (1990) identified three components of market orientation: customer orientation, competitor orientation, and inter-functional coordination. They further developed multi-item scales to measure each of these components. Narver and Slater (1990) argued that market orientation is a one-dimensional construct and a firm’s aggregate score on market orientation was an equally weighted average of the firm’s scores on all sub-scales. Recent work on market orientation, however, has uncovered a multi-dimensional structure of the construct (Pelham, 1997). In examining the dimensional structure of market orientation, Pelham (1997) found no separate dimension for the inter-functional coordination component of Narver and Slater’s (1990) scale. Instead, Pelham (1997) found separate dimensions for only the customer orientation and competitor orientation components. This finding is consistent with the result of several prior studies (Deshpande, Farley, and Webster, 1993; Shapiro 1988). Accordingly, the measurement of the construct of market orientation in this research consists of only these two dimensions.

Antecedents of market orientation, as identified by Kohli and Jaworski (1990), include commitment from senior management factors, organizational systems, and interdepartmental dynamics. In their original model, top management factors include risk-taking propensity (or risk aversion behaviour) as well as their emphasis on market orientation. It was not clearly established, conceptually and empirically, how risk-taking propensities influence market orientation. We therefore operationalize top management factors by investigating only one facet: management’s emphasis on market orientation.

Similarly, in the Kohli and Jaworski (1990) model, organizational systems include formalization, centralization, and departmentalization. However, many argue that the reward system of an organization is perhaps one of the most important factors influencing the success of achieving a market orientation (Harris, 1999; Ruekert, 1992; Singh, 2000). Accordingly, organizational systems were operationalized to only include a market based reward system.

The consequence of market orientation, as proposed by Narver and Slater (1990), is a positive impact on a company’s performance. Kohli and Jaworski (1990) argue that the positive outcome of market orientation is also extended to customer loyalty and employee commitment. Some recent studies even suggest that the link between market orientation and the organization’s financial performance is actually mediated through the company’s customer satisfaction and customer loyalty (Delbaere, Sivaramakrishnan, and Bruning 2003).

Jaworski and Kohli (1993) propose that environmental factors, such as market turbulence, competition intensity, and technological turbulence, could have moderating effects on the linkage between market orientation and business performance, although they failed to find empirical evidence to support their propositions. Day and Wensley (1988) suggest that the competitive environment could affect management’s emphasis on market orientation. Slater and Narver (1994) used data from their empirical research to support the linkage between market orientation and business performance. They found support for the argument that the relationship between market orientation and performance is robust, regardless of environmental factors.

Harris (1999) argues that attitudes and actions of employees is the stronger influencer for higher levels of market orientation. According to him, the concept of “internal marketing” best describes the inter-personal and inter-departmental dynamics within the organization. From the same “people driven” perspective, Ruekert (1992) carefully studied how a company’s recruiting, training, and rewarding systems correlate positively with market orientation and long-term performance. More recently, Matsuno and Mentzer (2000) found that the relationships between market orientation and performance are not monotonic; rather, the type of strategies employed moderates these relationships.
Employee Commitment

Like most constructs in social science, employee commitment has been defined and measured in many different fashions. These definitions share a common theme in that commitment is considered to be a bond or linking of the individual to the organization; they differ, however, on how the bond is developed (Mathieu and Zajac, 1990). The most widely used definition of commitment is attitudinal based, developed by Mowday et al. (1982):

[Commitment is] the relative strength of an individual’s identification with, and involvement in, a particular organization. Conceptually, it can be characterized by at least three factors: a) a strong belief in and acceptance of the organization’s goals and values; b) a willingness to exert considerable effort on behalf of the organization; and c) a strong desire to maintain membership in the organization.

One of the popular beliefs in the formation of commitment is calculation theory - the reason for employees to form such identification and involvement is their investments over time in the organization, and that the employees have “side-bets” or “sunk costs”, such as pensions and advancement opportunities, tied to the company. Therefore, they cannot afford to separate themselves from the company (Hrebiniak and Alutto, 1972). Thus, their expected utility of present job would be higher. Aryee, Chay, and Chew (1994) found that there is a strong positive correlation between expected utility of present job and organizational commitment. Following this logic, one would expect that a company’s reward system would be correlated with its employee commitment level.

Research Hypotheses

Commitment as an Antecedent to Market Orientation

Harris (1999) argues that the attitudes and action of employees is a strong influencer of higher levels of market orientation, and that the development of market orientation is related to the understanding, belief, and commitment of all employees. His view is a people-driven theory of sustaining and developing market orientation. His theory is compatible with that of Slater and Narver (1995), which examines the relationship between corporate culture and market orientation, with an emphasis on procedural protocol and interpersonal relationships.

Mathieu and Zajac (1990) reviewed the existing literature and conducted a meta-analysis on the antecedents and consequences of employee commitment, and associated relationships. They conclude that employee commitment correlates with motivation and job satisfaction, and produces better job performance and lower turnover. Singh (2000) also argues that employees’ organizational commitment correlates with performance, especially productivity. His theory is that high levels of performance engender the belief that the company is a source for future success opportunities, which results in increased commitment to the organization.

Following Narver and Slater’s (1990) definition of market orientation as an organizational culture, committed employees are likely to be more willing and able to implement and/or adopt a market orientation culture than less committed employees. As previously mentioned, Harris (1999) stresses the importance of an organization’s employees in the success of any market orientation pursuits.

Bruning, Argo, and Main (2001) also argue that employee commitment, coupled with employee training, is a critical antecedent to market orientation. They found empirical support for this argument in their study of Canadian exporters. This finding complements Martin et al.’s (1998) research on Eastern European companies, where they found that firms in Eastern Europe with no employee involvement had little market orientation.
We therefore propose the following hypothesis:

H1 Employee commitment is an antecedent to market orientation, and directly influences an organization’s market orientation.

**Commitment as a Mediator**

Further to the antecedent nature of employee commitment to market orientation, we propose that employee commitment mediates the relationship between a market based reward system and an organization’s market orientation. Jaworski and Kohli (1993) found support for their hypothesis that a market based reward system is an antecedent of a market orientation. According to Jaworski and Kohli (1993), organizations that emphasize market-oriented behaviours for distributing rewards will have higher levels of market orientation than companies that do not. Harris and Ogbonna (2001) investigated the relationships between strategic human resource management (SHRM), market orientation, and organizational performance. They argue that SHRM is an antecedent to market orientation, and that the relationship between SHRM and performance is mediated through market orientation.

Meyer and Allen (1997) summarized three dimensions of organizational commitment, indicating that human resource management practices, such as a market based reward system, induce organizational commitment among employees. It is quite possible that commitment is caused or at least affected by variables such as organizational reward systems.

From our previous hypothesis that commitment is an antecedent of market orientation, in addition to Jaworski and Kohli’s (1993) finding of a direct link between a market based reward system and market orientation and findings from the organizational behaviour literature that HR policies (including reward systems) are antecedent to employee commitment, we hypothesize that employee commitment mediates the relationship between a market based reward system and an organization’s market orientation, while still allowing for a direct impact of the reward system on levels of market orientation. More formally stated, our second hypothesis is:

H2: A market based reward system’s influence on an organization’s level of market orientation is both direct and mediated through the organization’s level of employee commitment.

**Commitment as a Moderator**

As argued by Jaworski and Kohli (1993), emphasis by an organization’s top management on the importance of being market oriented is likely to have a strong influence on employees’ behaviour in terms of monitoring the market and being more responsive to the market. Top managers play a significant role in shaping an organization’s culture and values (Jaworski and Kohli, 1993). Employees who are more committed to an organization are more likely to support its values and culture and make more of an effort towards achieving the organization’s objectives (Hartline et al., 2000). Clearly, corporate policies such as an emphasis on market orientation need to be implemented. Since the employees are the organization’s action agents, the effectiveness of such implementation would be affected by employees’ level of commitment. In fact, Martin et al. (1998) have shown that employee involvement is critical to the successful implementation of market orientation.

At the same time, a policy focusing singularly on market orientation is not likely to have a direct influence on employee commitment. Hence, we hypothesize that employee commitment moderates the strength of the relationship between top management emphasis and market orientation.
H3: Top management’s influence on an organization’s level of market orientation is moderated by levels of employee commitment.

Methodology

Sample

Data to test our competing models were collected from 227 managers across Canada for a previous study (Delbaere et al., 2003). Respondents were top- or middle-level managers from various functional areas of at least 71 companies spanning several industries (5 respondents did not provide company identification). Respondents were assured confidentiality and had the option to keep their responses anonymous. In addition, respondents were given the opportunity to indicate “Don’t know” to every item in the questionnaire. This was designed to reduce the likelihood of respondents feeling obligated to “guess” an answer when they did not really have one.

Many questions in the survey pertained to the respondent’s specific department or unit within their respective company. There have been instances where multiple of informants are from different functional areas within the same company. This is not redundant, however. Gray et al. (1998) recommended that it may be preferable to use multiple informants in order to achieve a more accurate view of an organization’s overall level of market orientation. They argue that samples consisting of only marketing or sales managers might yield too optimistic a picture about the levels of market orientation in the organization. In refining the MARKOR scale, Kohli, Jaworski and Kumar (1993) also employed a multi-informant sample.

Measurement

The survey questionnaire consisted of 123 questions, covering many variables. We will focus on the constructs related to the hypotheses only. Responses from individuals within the same company were averaged to give one response per company, as our unit of analysis was the company and not the individual. Subsequent analyses were run with the aggregated data that represented 71 companies. The respondents that did not provide company identification were excluded from the analyses. Table 1 contains the descriptive statistics for all variables. The correlation matrix is included in Appendix I.

Antecedents

Top Management Emphasis on Market Orientation was measured with a four-item, 7 point Likert scale as developed by Jaworski and Kohli (1993). The rationality for these factors being antecedents to market orientation is discussed by Kohli and Jaworski (1990). Factor analysis with varimax rotation revealed one clear factor; the scores on each scale were therefore averaged to form an index score. The scale demonstrated adequate internal reliability with a coefficient alpha of 0.79.

Market Based Reward System was measured with a three item, 7-point Likert scale, a modified version of measurement scale developed by Jaworski and Kohli (1993). Scores on the three items were averaged to form an index score. The scale demonstrated adequate internal reliability with a coefficient alpha of 0.75.

Market Orientation

Market orientation was measured using items from Narver and Slater’s (1990) scale. Customer orientation was measured using a five-item, 7-point Likert scale. Competitor orientation was measured using a three-item, 7-point Likert scale. A factor analysis with varimax rotation revealed the two expected dimensions. One item had a low factor loading. A reliability
analysis showed that one item to have a low item-to-total correlation, and was hence dropped from further analysis. The coefficient alpha of the remaining seven items was 0.87 and these were then averaged into one market orientation index.

**Employee Commitment**

Employee commitment was measured with a four-item, 7-point Likert scale, a modified version of measurement scale developed by Jaworski and Kohli (1993). Factor analysis with a varimax rotation revealed one clear factor. The scores were therefore averaged into one employee commitment index score. The employee commitment scale demonstrated high internal reliability with a coefficient alpha of 0.93.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Orientation</td>
<td>4.90</td>
<td>0.99</td>
<td>-0.31</td>
<td>-0.24</td>
</tr>
<tr>
<td>Employee Commitment</td>
<td>4.61</td>
<td>1.34</td>
<td>-0.47</td>
<td>-0.18</td>
</tr>
<tr>
<td>Reward System</td>
<td>4.46</td>
<td>1.21</td>
<td>-0.23</td>
<td>-0.08</td>
</tr>
<tr>
<td>Top Management Emphasis</td>
<td>5.50</td>
<td>1.11</td>
<td>-1.15</td>
<td>1.47</td>
</tr>
</tbody>
</table>

**Analysis and Results**

**Commitment as an Antecedent to Market Orientation**

To test whether employee commitment is best conceptualized as an antecedent to market orientation, we regressed market orientation on the level of employee commitment, using ordinary least squares regression. Employee commitment was found to be a significant predictor of market orientation, with an estimated beta weight coefficient of 0.587 (p < .000), and an adjusted R-square of 0.334. Hypothesis 1 that employee commitment is an antecedent to market orientation is therefore supported.

**Commitment as a Mediator**

According to Baron and Kenny (1986), the central idea of a mediating variable is that it somehow intervenes in the transformation process between stimuli and response. It “represents the generative mechanism through which the focal independent variable is able to influence the dependent variable of interest” (Baron & Kenny, 1986). Some defining characteristics of mediating variables include that the independent variable must affect the mediator (path a); the mediator must affect the dependent variable (path b); the independent variable must affect the dependent variable (path c); and that when paths a and b are controlled, path c becomes insignificant, or small (Baron & Kenny, 1986).

Both path analysis and structural equation modelling (SEM) techniques were used to test hypotheses 2 and 3. Ideally, we would rely solely on SEM; however, the relatively small sample
size for the number of measured variables in the model would result in unstable path estimates. We therefore chose to use a dual approach to test the hypotheses in order to have more confidence in our results.

The following three regression equations were estimated according to Baron and Kenny’s (1986) recommendations: employee commitment (EC) was regressed on reward system (RS); market orientation (MO) was regressed on reward system; and market orientation was regressed on reward system and employee commitment. The results are summarized in Table 2.

<table>
<thead>
<tr>
<th>DV</th>
<th>IV</th>
<th>Adj. $R^2$</th>
<th>Beta Weight</th>
<th>t-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC</td>
<td>RS</td>
<td>.510</td>
<td>.719</td>
<td>8.415</td>
<td>.000</td>
</tr>
<tr>
<td>MO</td>
<td>RS</td>
<td>.159</td>
<td>.414</td>
<td>3.693</td>
<td>.000</td>
</tr>
<tr>
<td>MO</td>
<td>RS, EC</td>
<td>.324</td>
<td>-.017</td>
<td>-0.116</td>
<td>.908</td>
</tr>
</tbody>
</table>

Reward system was a significant predictor of market orientation when it was the only independent variable. When employee commitment was added, reward system became non-significant. Moreover, the beta coefficient of reward system decreased significantly from .414 to -.017. All conditions specified by Baron and Kenny (1986) for perfect mediation are satisfied, indicating that reward system has a significant impact on market orientation, but this impact is completely mediated by employee commitment. Residual analysis shows no major deviation from normality. Hypothesis 2 is thus partially supported; we find support for full mediation rather than partial mediation.

**Figure 3: Mediation Model – Standardized Estimates**

The mediating role of employee commitment was substantiated through structural equation modeling using AMOS 4.0 (Arbuckle, 1999). As shown in Figure 3, the standardized estimated path coefficient from RS to EC was significant (0.81, p<.00), as was the path coefficient from EC to MO (.79, p<.00). The direct path from RS to MO was not significant (-.06, p>.8). The model fit the data reasonably well with a discrepancy/degrees of freedom ratio of 2.0.
(150/74) and a comparative fit index (CFI) of 0.977. While results from the structural equation modeling replicate the findings from the least-squares regression analysis, some degree of caution must be exercised when interpreting the path estimates due to the relatively small sample size.
Commitment as a Moderator

According to Baron & Kenny (1986), moderator variables have certain distinctive characters, such as that they are independent, exogenous to criterion variables, and often uncorrelated to neither the predictor or the criterion variables. Moderating variable affects the direction and/or strength of the relationship between an independent variable and a dependent variable. It “partitions a focal independent variable into subgroups that establish its domains of maximal effectiveness in regard to a given dependent variable”.

The following regression equations were estimated to test the hypothesis that employee commitment moderates the relationship between top management emphasis and market orientation: market orientation (MO) was regressed on top management’s emphasis (TME) on market orientation; market orientation was regressed on top management emphasis and employee commitment (EC); and finally market orientation was regressed on top management emphasis, employee commitment and an interaction term (TME*EC). As recommended by Aiken and West (1991) and Kline and Dunn (2000), the effects of collinearity in the interaction term were controlled for by first centering the variables (employee commitment and top management emphasis) by subtracting the scale mean from each score and then cross-multiplying to obtain the cross-product interaction term. The results are summarized in Table 3.

<table>
<thead>
<tr>
<th>IV</th>
<th>Adj. $R^2$</th>
<th>Beta Weight</th>
<th>t-Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TME</td>
<td>.399</td>
<td>.639</td>
<td>6.842</td>
<td>.000</td>
</tr>
<tr>
<td>TME*EC</td>
<td>.493</td>
<td>.437</td>
<td>4.014</td>
<td>.000</td>
</tr>
</tbody>
</table>

The results do not suggest that employee commitment moderates the influence of top management’s emphasis on market orientation. Residual analysis shows no major deviation from normality. H3 is therefore not supported.

Structural equation modeling was also used to test the moderation hypothesis. Figure 5 depicts the model built to test the interaction effect according to the method outlined by Kline and Dunn (2000). Kline and Dunn (2000) recommend following the deviation-score approach (Aiken and West, 1991), which involves centring each item that constitutes an indicator variable for each exogenous variable in the model. The items are centred by subtracting the mean of each item rather than the mean from each scale. The interaction term is created by forming all possible combinations of cross products of the centred indicator items. As there were four indicator variables for each exogenous variable in this case a total of sixteen indicator variables were computed for the interaction term.
The structural equation analysis supports the results obtained through ordinary least-squares regression (see Figure 5 for the model). The standardized path estimate from EC to MO was significant (.52, p<.00), as was the path estimate from TME to MO (.68, p<.00), while the path from the interaction term (EC*TME) to MO was not significant (.02, p>.8). Although the estimated coefficients were quite similar to the beta coefficients obtained through the regression analysis, the structural equation model does not fit the data very well. The discrepancy over degrees of freedom ratio is 4.89 (2106/96) and the comparative fit index (CFI) is 0.719. This is likely due to the relatively small sample size coupled with the high number of indicator variables required when modeling interaction effects. Although our previous results were supported, the poor fit of the model suggests that the estimates may not be accurate.

![Figure 5: Moderation Model – Standardized Estimates](image)

**Discussion**

The managerial implications of our findings are that employee commitment is an important antecedent to market orientation, especially in the successful implementation of market orientation. Market based reward systems work because they increase levels of employee commitment and thereby enhancing the successful implementation of market orientation, which ultimately enhance the company’s performance.

Support was not found for the hypothesis that employee commitment moderates the relationship between top management’s emphasis on market orientation and the organization’s actual market orientation. A possible explanation for this lack of support is that these two constructs operate at the same level with respect to the influence on market orientation. Data
confirms Jaworski and Kohli’s original proposition that top management’s emphasis has a strong and direct impact on market orientation. In hindsight, the lack of interaction between top management emphasis and commitment actually reinforces our first two findings.

Limitations of this study include the relatively small sample size, and relatively narrow operationalization of certain constructs. For example, this study only examined one facet of organizational systems, i.e., market based reward system. This did not deal with the complicated interaction and possibilities of the effect of top management’s risk taking propensity or risk aversion behaviour on the organization’s market orientation.

Furthermore, the data suggests that there is a strong correlation that exists between employee commitment and the organization’s inter-departmental dynamics. Intuitively, this correlation makes sense. However, it is not clear what mechanism governs the interaction between these two constructs. Perhaps that would be a topic for future research.
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### Appendix I

#### Correlations

<table>
<thead>
<tr>
<th></th>
<th>employee commitment - mean</th>
<th>market orientation</th>
<th>top management emphasis</th>
<th>market reward system</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>employee commitment - mean</strong></td>
<td>Pearson Correlation</td>
<td>.601**</td>
<td>.498**</td>
<td>.719**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>70</td>
<td>70</td>
<td>70</td>
<td>68</td>
</tr>
<tr>
<td><strong>market orientation</strong></td>
<td>Pearson Correlation</td>
<td>1</td>
<td>.639**</td>
<td>.414**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
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<td>.000</td>
<td>.000</td>
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<tr>
<td>N</td>
<td>70</td>
<td>70</td>
<td>70</td>
<td>68</td>
</tr>
<tr>
<td><strong>top management emphasis</strong></td>
<td>Pearson Correlation</td>
<td>.498**</td>
<td>.639**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
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<td>70</td>
<td>70</td>
<td>68</td>
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<tr>
<td><strong>market reward system</strong></td>
<td>Pearson Correlation</td>
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<td>.414**</td>
<td>.338**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.005</td>
<td>.005</td>
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<tr>
<td>N</td>
<td>68</td>
<td>68</td>
<td>68</td>
<td>68</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.01 level (2-tailed).*