The effect of marketing capability, financing resource and spatial configuration on market-focused flexibility

Li Ling-Yee

Department of Marketing and International Business,
Lingnan University of Hong Kong,
Tuen Mun, Hong Kong
Email: estherli@ln.edu.hk

Gabriel O. Ogunmokun*

Department of Management and Marketing,
United States University of the Virgin Islands,
US Virgin Islands, USA
Email: ogunmokun@academyofworldbusiness.com
*Corresponding author

Abstract: In spite of the normative appeal of flexibility, the concept has rarely been considered from strategic marketing perspective. Without being market focused, flexibility will not result in superior value creation and sustainable competitive advantage. In the light of the above shortcomings, *this study examined a firm's flexibility with reference to a specified export venture market*. Based upon the strategic marketing perspective, this study identified three sets of antecedents of market-focused flexibility: marketing capabilities, financing resources and spatial configurations. The empirical evidences showed reasonable support for the proposed model. In addition, this study brought clear evidences demonstrating the powerful effect of market-focused flexibility on competitive advantages and performance in the corresponding markets. As a whole, this study helps scholars and managers to better conceptualise and measure market-focused flexibility, understand how it develops in the firm and how it works together with other important resources and capabilities to affect outcomes.

Keywords: marketing capability; financing resources; spatial configuration; market-focused flexibility; economic performance; competitive advantage; differential advantage; low cost advantage.

Reference to this paper should be made as follows: Ling-Yee, L. and Ogunmokun, G.O. (2013) 'The Effect of marketing capability, financing resource and spatial configuration on market-focused flexibility', *Int. J. Trade and Global Markets*, Vol. 6, No. 2, pp.158–181.

Biographical notes: Li Ling-Yee (Esther) is an Associate Professor at the Department of Marketing and International Business, Lingnan University of Hong Kong.

Gabriel Ogunmokun is the Chair of Management and Marketing as well as the Chair of Scholarship (Research) at the United States University of the Virgin

Islands, School of Business in US Virgin Islands. He is also the editor of the *Journal of International Marketing and Exporting*, and the President of the Academy of World Business, Marketing and Management Development.

1 Introduction

As technology unfold and globalisation progresses, firms face increasingly complex environments and keen competition. Given that market demand fluctuates and competitive conditions change in different parts of the world, it has been asserted that the firm must develop flexibility to adapt to these conditions and re-deploy resources to take advantage of operating in a given location (Malnight, 1996). Flexibility in allocating resources and developing skills along product/market changes has been put forward as an essential firm capability for building up a global competitive position (Craig and Douglas, 2000), improving firm performance (Evans, 1991) and surviving out of economic crisis (Grewal and Tansuhaj, 2001). In spite of the normative appeal of flexibility, theoretical developments have been hampered by three major shortcomings in previous studies. First, an extensive review over the conceptualisations of flexibility (Johnson et al., 2003) suggested that a preponderance of treatments involve internal, operational or manufacturing perspectives on flexibility and the concept has rarely been considered from a strategic marketing perspective. Without being market focused, flexibility will not result in superior value creation and a sustainable competitive advantage (Johnson et al., 2003). As a result, the role of market-focused flexibility in search of a global competitive advantage and superior performance was far from ascertained. Second, the antecedent of flexibility was seldom explored. Although theorists (Craig and Douglas, 2000) proposed that establishment of linkages among activity systems in terms of multiple sourcing and flexible logistics, skill adaptability and transferability, etc., is crucial in generating flexibility, the current appreciation of how firm resources, capabilities, and organisational configurations foster market-focused flexibility is at a barren state. Third, effect of market-focused flexibility on a firm's competitive advantage and performance in overseas markets is little examined (Li and Ogunmokun, 2000). Besides, some researchers put forward a contingent view that whereas flexibility improves the firm's performance when it operates in an environment with intense competition (Grewal and Tansuhaj, 2001) or high turbulence (Johnson et al., 2003), it has little performance effect when operating in other environments with little competition or turbulence. The omnipresent influence of market-focused flexibility has never been testified.

In the light of the above shortcomings, *this study examined a firm's flexibility with reference to a specified export venture market*. The current study would identify its different dimensions, i.e. operational, tactical and strategic flexibility, under the refined concept of market-focused flexibility. Moreover, drawing upon capabilities theory, resource-based views of the firm, and options literature, this study develops a model of antecedent factors of market-focused flexibility pertaining to the firm's marketing capabilities, financing resources and spatial activity configurations. Empirically, this study investigates into the influence of these antecedents on market-focused flexibility and the latter's influence on the firm's competitive advantage and performance in the corresponding export markets. As a whole, this study helps scholars and managers to

better conceptualise and measure market-focused flexibility, understand how it develops in the firm and how it works together with other important resources and capabilities to affect outcomes.

1.1 The influence of market-focused flexibility over competitive advantage and performance

A review of the literature on flexibility reveals a distinction between operational flexibility (Galbraith, 1990; Upton, 1995; Buckley and Casson, 1998), tactical flexibility (Matusik and Hill, 1998; Young-Ybarra and Wiersema, 1999) and strategic flexibility (Ansoff, 1965; Eppink, 1978; Aaker and Mascarenhas, 1984; Harrigan, 1985; Evans, 1991; Hayes and Pisano, 1994; Das and Elango, 1995; Sanchez, 1995; Lau, 1996; Lei et al., 1996; Sanchez, 1997; Hitt et al., 1998). First, with regard to *operational flexibility*, it refers to a short-term, day-to-day ability dealing with raw material shortage and equipment failure (Carlsson, 1989), handling increasing range of work, achieving uniform performance across a specified range (Upton, 1995), and reallocating resources in quick responses to changes (Buckley and Casson, 1998). By offering product options that better serve wants and needs for new or changing customer segments, market-focused flexibility would create a superior value proposition for its customers and therefore craft a sustainable competitive advantage (Johnson et al., 2003). Furthermore, operational flexibility enables a firm to cut time and cost in its responses to environmental changes (Sethi and Sethi, 1990) and improves a firm's performance in overseas markets. It is thus hypothesised:

H1a: Market-focused flexibility over operational processes enhances competitive advantage and performance in its corresponding markets.

Second, with regard to tactical flexibility, it pertains to changes in product design and in the product mix, the rate of production or plant/equipment use (Carlsson, 1989) in response to fluctuation in demand or market imperfection (Stigler, 1939; Hart, 1940). One major route to tactical flexibility is the use of contract manufacturing (Craig and Douglas, 2000). Contract manufacturing, as a primary modular organisational form (Schilling and Steensma, 2001), allows firms to substitute loose coupling for activities that were once tightly integrated within their organisations. Contract manufacturing allows firms to meet the scale of the current market demand, without committing to long-term capital investments or an increase in their labour forces, thus giving the firm greater scale flexibility, other cost advantages and efficient performance (Schilling and Steensma, 2001). It is hypothesised here that:

H1b: Market-focused flexibility over subcontracting volume production arrangements enhances competitive advantage and performance in its corresponding markets.

Third, with regard to strategic flexibility, it involves a response to increases in environmental variability (Ansoff, 1965; Eppink, 1978; Harrigan, 1985; Evans, 1991). On the defensive side, it can be achieved by participating in multiple technologies, products and markets so that if one collapses or is attacked the firm can turn to others (Aaker and Mascarenhas, 1984). On the aggressive side, strategic flexibility can be developed out of participation in different technologies and development of R&D strengths so that the firm is in a position to exploit new development and pioneer it (Ansoff, 1965). By understanding how market boundaries evolve with various

technological futures (Achrol and Kotler, 1999), and predicting new consumer needs (Johnson et al., 2003), market-focused flexibility would help the firm to preempt its competitors (Evans, 1991), develop competitive advantages and gains proactively (Hitt et al., 1998). Although firms seek to gain access to new technologies by forming technology-sourcing partnerships, firms have limited capital and management resources. The important issue is to obtain the specific, needed technology in an efficient manner. However, no one type of partnership is likely to be ideal in all cases. Contingent theorists (Steensma and Corley, 2000) made it clear that the performance of technology-sourcing partnerships depends on its partnership arrangements. For a desired technology that is difficult to imitate, sourcing performance is enhanced when acquisition is used. Whereas for a desired technology that is dynamic with unclear value of the technology's output to the market, sourcing performance is enhanced when licensing is used. This implied that in order to gain access to new technologies, flexibility over partnership arrangements might benefit its performance outcomes. It is thus hypothesised:

H1c: Market-focused flexibility over strategic technology-sourcing partnership arrangements enhances competitive advantage and performance in its corresponding markets.

1.2 Theoretical model of antecedents of market-focused flexibilities

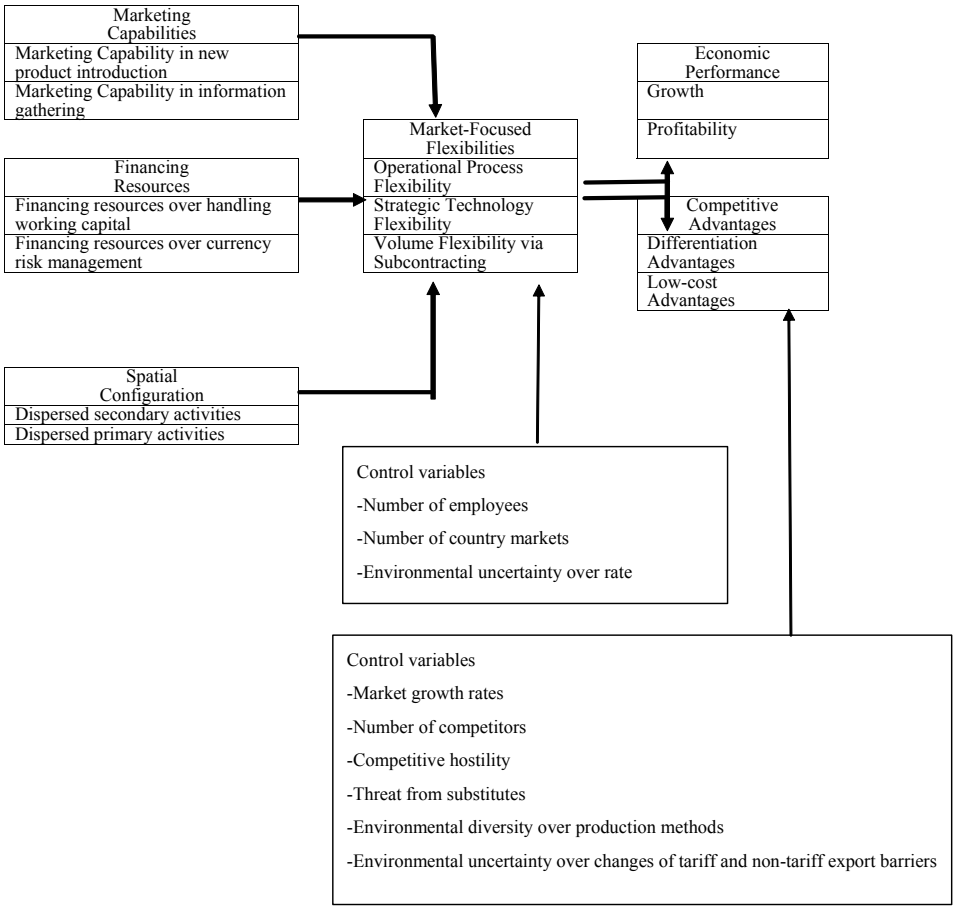
The concept of market-focused flexibility is conceptually rooted in capabilities theory, resource-based views of the firm, and options (Johnson et al., 2003). In line with the strategic marketing perspective, market-focused flexibility can be conceptualised as a firm's strategic responses to market uncertainties by adjusting its resources, capabilities, and organisational structures. A theoretical model of key antecedents of market-focused flexibility is presented in Figure 1. It posits that market-focused flexibility is determined by three groups of forces: marketing capabilities, financing resources and spatial activity configurations.

1.3 Marketing capabilities and market-focused flexibility

To achieve market-focused flexibility, the firm's resources must be amenable to change. Flexibility depends not only on the availability of firm resources, but as much on the availability of firm capabilities in resource application (Johnson et al., 2003). In line with capabilities theory, market-focused flexibility depends on the existence of appropriate accompanying capabilities (Kogut and Kulatilaka, 2001). Specifically, this study identified two types of marketing capabilities namely: market information collection capability and new product introduction capability and examined their effect on market-focused flexibility.

An ability to collect market information or market sensing (Day, 1994) is a kind of dynamic capability that uses marketplace information to guide strategy formulation (Craig and Douglas, 2000). In addition, the market information inputs serve to guide efforts in adapting to a competitive position and the related activity systems across multiple markets. As a result, the portfolio of marketing resources can be deployed and redeployed, configured and reconfigured over time (Teece et al., 1997; Eisenhardt and Martin, 2000) in response to changes. In short, marketing capability over information collection forms a foundation for generating market-focused flexibility.

Figure 1 Conceptual model of effect of marketing capability, financing resources and spatial configuration on market-focused flexibilities



An ability to introduce new products is a kind of high-order, border-spanning capability (Craig and Douglas, 2000) that involves integration of R&D, production and marketing efforts in different locations to develop, produce and market new products for different markets (Souder et al., 1998; Li, 1999). In keeping with the new product development literature (Calantone et al., 1996; Mishra et al., 1996), it is revealed that the development of successful new products is not only supported by technical resources and proficiencies, but also empowered as much by marketing resources and proficiencies. And, new product success is more likely when the firm is proficient in product commercialisation (Song and Perry, 1997) or market launch (Cooper, 1979) and commits a significant amount of its resources to selling and promoting the new product (Maidique and Zirger, 1984). In other words, marketing capability over new product introduction generates real options in the forms of new product/market entries (Johnson et al., 2003) and fosters market-focused flexibility. It is thus hypothesised that:

H2a: Marketing capability over market information collection generates market-focused flexibilities.

H2b: Marketing capability over new product introduction generates market-focused flexibilities.

1.4 Financing resources and market-focused flexibility

Consistent with the resource-based views of the firm (Wernerfelt, 1984; Rumelt, 1995), market-focused flexibility depends significantly on the firm's resource portfolio. In building up market-focused flexibility, it is important not only to consider tangible but also intangible resources that may tie semi-permanently to the firm and may contribute to its competitive advantage (Johnson et al., 2003). Specifically, two kinds of financing resources, namely resources over maintenance of liquid assets and resources over management of currency risks, are identified and their effects on market-focused flexibility are examined in this study.

Maintaining liquidity of asset means ensuring financing resources are always available (Aaker and Mascarenhas, 1984) that serve to absorb and respond to unfavourable developments and to be in a position to exploit favourable trends when they occur (Ansoff, 1965). In general, liquid assets are underutilised assets (Aaker and Mascarenhas, 1984) that take various forms including excess manufacturing capacities, duplicated distribution facilities or inventory buffers. In particular, having liquid working capital can enhance a firm's operational flexibility by employing temporary workers; enhancing its volume flexibility by subcontracting work to multiple suppliers and enhancing its strategic technology-sourcing flexibility via licensing, joint ventures or acquisitions when needed.

Management of currency risks involves minimising exchange risks via hedging activities, controlling currency fluctuations via long-term contracts, as well as transferring funds across SBUs to take advantage of tax or interest rate differences (Aaker and Mascarenhas, 1984). The choices to switch investment streams serve to make financing resources available. By keeping options open (Bowman and Hurry, 1993), the firm has an ability to exercise 'flexible options' over operational processes, tactical subcontracting decisions and strategic technology-sourcing arrangements. It is therefore hypothesised here that:

H3a: Financial resources over maintenance of liquid assets generate market-focused flexibilities.

H3b: Financial resources over management of currency risks generate market-focused flexibilities.

1.5 Spatial configuration and market-focused flexibility

Diversification has been put forward as a distinctive approach to increasing flexibility (Aaker and Mascarenhas, 1984). Geographical dispersion of activities provides greater contact with customers that enable quick responses and tailoring of products and services to meet specific customer needs (Bartmess and Cerny, 1993) and builds up customisation-based advantage. Geographic proximity to competitors also facilitates greater awareness of competitor innovations and changes in strategy (Porter, 1990) and builds up an innovation-based advantage. Further, dispersion provides greater flexibility to changes in macroeconomic conditions in different locations that enable the firm to shift production or adjust sourcing policies more rapidly to swings in foreign exchanges, work strikes or economic or political conditions and thus diversifies macroeconomic

risks (Craig and Douglas, 2000). Generally speaking, a firm's competitive position in world markets depends in part on the geographic scope of its operation, i.e. the broadness of its spatial configuration (Hamel and Prahalad, 1994). Specifically, a dispersed pattern of *primary production activities* reduces dependency on a single-supply location, and enables multiple sourcing meaning shifting production to the most cost-effective locations to counter fluctuations in currency movements, labour unrest or political changes (Kogut and Kulatilaka, 1994). In addition, a dispersed pattern of *secondary support activities* enables adaptation of firm-specific skills to specific markets, and transfers location-specific capabilities across borders that build up competitive advantage over local competitors (Craig and Douglas, 2000). It is thus hypothesised in this study that:

H4a: Dispersed primary activities generate market-focused flexibilities.

H4b: Dispersed secondary activities generate market-focused flexibilities.

2 Research methodology

2.1 The sample

The present study defined its population as manufacturing firms that have production facilities set up in China, and that sell its outputs to overseas countries. This study used the membership directories of manufacturers as its sampling frame. From these directories, a systematic random sample of 300 firms was drawn. Each firm was contacted by mail to solicit their cooperation in participating in this study. Out of the 300 randomly selected exporters, 280 firms indicated their willingness to participate in this study. A copy of the survey instrument was provided via personal delivery to each of the 280 exporting firms that indicated their willingness to participate in the study. Each respondent firm was asked to provide information on one specific export venture they had in the last three years. This method, which asked respondents to choose one case within a specific period of time, was used by Madsen (1989), and this approach helped to exclude ad hoc export activities from the study. This approach is also a popular method used in the new product development research studies (see e.g. Brown and Eisenhardt, 1995 for an overview). Out of the 280 exporting firms that agreed to complete the questionnaire, a final total of 111 exporting firms fully completed the questionnaires resulting in a response rate of 39.6%. The response rate is comparable to the rates reported in other studies involving exporting firms (e.g. Cavusgil and Nevin, 1981; Axinn, 1988; Kaynak and Kuan, 1993; Moini, 1995).

In order to determine whether the characteristics of the respondents differ from those of 'non-respondents', a sample of 50 non-respondents was contacted by phone to obtain the structural characteristics of their firms and reasons for their refusal to complete this survey. Eighteen firms explained that they could not participate in this survey because either (a) they had stopped exporting, or (b) they had not started exporting activities. None of the respondents reported difficulty in understanding or completing the instrument as a factor. This procedure generated 32 responses. Furthermore, the analysis of data (at the 5% significance level) showed that the characteristics of non-respondents concerning firm size, total company sales turnover, international experience, number and type of export markets did not differ significantly from those of respondents. Table 1 presents the general profile of respondents relevant to the current study.

Table 1 General profile of the respondent exporters

Number of full-time employees	*N*	*%*
Less than 100	15	13.5
100–400	25	22.5
401–999	29	26.2
1000–3000	42	37.8
Total	111	100.0
Annual sales turnover		
Under US$ 1 million	7	6.4
US$ 1–5 million	26	23.4
US$ 5–10 million	26	23.4
US$ 10–15 million	13	11.7
Over US$ 15 million	39	35.1
Total	111	100.0
Number of foreign markets		
Only 1 country	11	9.9
2–3 countries	36	32.4
4–6 countries	31	27.9
7–10 countries	18	16.2
Over 10 countries	15	13.5
Total	111	100.0
Years of international experience		
Up to 5 years	27	33.3
6–10 years	32	28.8
11–15 years	22	19.8
16–20 years	10	9.0
Over 20 years	10	9.0
Total	111	100.0
Kind of ownership structure		
Private enterprises under domestic funding	30	27
Private enterprises with foreign funding	22	20
State-owned enterprises	59	53
Total	111	100

In China, small- and medium-sized businesses are defined differently and have up to 450 and 3000 employees compared to 99 and 499 (OECD, 1994). The present sample comprised mainly of small- and medium-sized firms in which 64% of the respondent firms employed over 400 but less than 3000 full-time employees. The majority (70.2%) of firms had an annual sales turn over record of over US$ 4.99 million. All the firms had at least five years of international experience. Approximately two-thirds (66.7%) of the firms had over five years of international experience. Besides, slightly over half (53%) of firms used in this study were state-owned enterprises, while the non-state-owned business firms accounted for nearly a half (47%) of the firms used in this study.

2.2 Instrument development

This is a survey study. The survey instrument was developed out of a comprehensive review of the flexibility and export performance literatures. It takes the form of a structured questionnaire that was translated from its original English version into its Chinese version. To avoid the problem of an overly literal word-for-word type of translation, the Chinese questionnaire was forwarded for comment to several academic researchers who are familiar with not only the international marketing literature but also the business environment in mainland China. The feedback obtained from these researchers was used to improve the questionnaire before pre-testing. Further, the questionnaire was pre-tested. Twenty exporting firms in China were used for pre-testing the questionnaire through personal interviews. During the pre-test, respondents were asked to complete the questionnaire and indicate any difficulties they experienced and to offer suggestions for improvement. This second step ensured that ambiguity and confusion of wording was minimised.

3 Statistical analyses

The statistical analysis was divided into two stages. First, separate exploratory factor analyses were performed to identify the underlying dimensions of market-focused flexibilities, marketing capabilities, financing resources, spatial configurations, export performance and competitive advantages. Next, two multiple regression analyses were performed to explore variations over the influence of the predictor variables on market-focused flexibility on the one hand, and the influence of market-focused flexibility on export performance and competitive advantage on the other hand.

3.1 Factor analysis results

In order to reduce the data pertaining to the independent and dependent variables, five factor analyses were carried out (see Tables 2–4 for factor analyses results). With respect to the key construct of interest in this study, i.e. market-focused flexibility, a three-factor solution that explained 58.71% of the cumulated variances was adopted.

Table 2 Factor analysis and reliability test of the key construct: market-focused flexibility

Factor-based measurement scales for dependent variables: market-focused flexibility	*Loadings*
Factor 1: Operational Process flexibility	
The firm has an extremely strong flexibility to provide quick responses in service levels.	.73
The firm has an extremely strong flexibility to provide quick responses in container movement.	.65
The firm's skilled labour has an extremely strong flexibility to handle an increased work range.	.63
The firm has an extremely strong flexibility to produce small batches of a wide variety of products.	.61
The firm has an extremely strong flexibility to share data with suppliers/distributors.	.60
Eigenvalue: 2.89, Percentage of variance explained: 28.85%, Alpha: .67	

Table 2 Factor analysis and reliability test of the key construct: market-focused flexibility (continued)

Factor-based measurement scales for dependent variables: market-focused flexibility	*Loadings*
Factor 2: Strategic technology sourcing flexibility	
The firm has an extremely strong flexibility to acquire other companies to gain access to new technology.	.82
The firm has an extremely strong flexibility to contract out a large portion of its R&D.	.75
The firm has an extremely strong flexibility to use licensing agreements to gain access to new technology.	.74
Eigenvalue: 1.59, Percentage of variance explained: 15.90%, Alpha: .72	
Factor 3: Volume flexibility via subcontracting	
The firm has an extremely strong flexibility to subcontract the production of its component parts.	.92
The firm has an extremely strong flexibility to subcontract the production of its overflow work.	.85
Eigenvalue: 1.40, Percentage of variance explained: 13.96%, Alpha: .81	

Notes: Operational, strategic and tactical flexibilities are measured on a 5-item Likert scale with 1 = very inflexible and 5 = very flexible.

Table 3 Factor analysis and reliability test of independent variables

Factor-based measurement scales for Independent variables: marketing capabilities	*Loadings*
Factor 1: Marketing capability in new product introduction	
The organisation's marketing managers can introduce new products extremely easily.	.93
The organisation's marketing managers can introduce new upgrades to existing products extremely easily.	.91
Eigenvalue: 2.87, Percentage of variance explained: 57.38%, Alpha: .88	
Factor 2: Marketing Capability in information gathering	
The organisation's marketing managers can do market research studies extremely easily.	.84
The organisation's marketing managers can collect foreign distributors' feedback extremely easily.	.82
The organisation's marketing managers can assess systematically market growth extremely easily.	.64
Eigenvalue: 1.01, Percentage of variance explained: 19.87%, Alpha: .73	
Factor-based measurement scales for independent variables: financing resources	
Factor 1: Financing resources over handling working capital	
The organisation's financial managers can adjust timing of payments extremely easily.	.88
The organisation's financial managers can adjust timing of receipts extremely easily.	.85
The organisation's financial managers can raise long-term funds extremely easily.	.67
Eigenvalue: 2.45, Percentage of variance explained: 34.95%, Alpha: .74	
Factor 2: Financing resources over currency risk management	
The organisation's financial managers can minimise foreign exchange risks by hedging in currency options and future contracts extremely easily.	.78

Table 3 Factor analysis and reliability test of independent variables (continued)

Factor-based measurement scales for Independent variables: marketing capabilities	*Loadings*
The organisation's financial managers can transfer capital to different markets to take advantage of tax and interest rate differences extremely easily.	.71
The organisation's financial managers can control currency fluctuation by negotiating contracts in home country's currency extremely easily.	.67
The organisation's financial managers can enter into long-term contracts with international freight forwarders to gain transportation savings extremely easily.	.52
Eigenvalue: 1.46, Percentage of variance explained: 20.83%, Alpha: .61	
Factor-based measurement scales for independent variables: spatial configuration	
Factor 1: Spatial configuration resources in dispersing secondary activities	
The organisation carried out its transportation activities in a diverse number of countries.	.88
The organisation carried out its business negotiation activities in a diverse number of countries.	.88
The organisation carried out its market research activities in a diverse number of countries.	.84
The organisation carried out its marketing activities in a diverse number of countries.	.83
The organisation carried out its documentation activities in a diverse number of countries.	.76
The organisation carried out it after sales service activities in a diverse number of countries.	.72
The organisation carried out its merchandising activities in a diverse number of countries.	.68
The organisation carried out its trade financing activities in a diverse number of countries.	.66
The organisation carried out its materials procurement activities in a diverse number of countries.	.62
The organisation carried out its warehousing activities in a diverse number of countries.	.62
The organisation carried out its quality control testing activities in a diverse number of countries.	.61
Eigenvalue: 10.42, Percentage of variance explained: 57.86%, Alpha: .94	
Factor 2: Spatial configuration resources in dispersing primary activities	
The organisation carried out its product design activities in a diverse number of countries.	.88
The organisation carried out its packaging activities in a diverse number of countries.	.85
The organisation carried out its R&D activities in a diverse number of countries.	.85
The organisation carried out its sample-making/prototyping activities in a diverse number of countries.	.83
The organisation carried out its manufacturing activities in a diverse number of countries.	.82
The organisation carried out it controlling headquarter activities in a diverse number of countries.	.79
The organisation carried out its assembling/processing activities in a diverse number of countries.	.67
Eigenvalue: 2.30, Percentage of variance explained: 12.80%, Alpha: .92	

Table 4 Factor analysis and reliability test of dependent variables

Factor-based measurement scales for dependent variables: competitive advantage and performance	*Loadings*
Factor 1: Achievement of top management's objectives over sales growth	
The export venture has far exceeded top management's expected sales growth objectives.	.87
The export venture has far exceeded top management's expected market penetration objectives.	.85
The export venture has far exceeded top management's expected image enhancement objectives.	.76
The export venture has achieved much better sales volume than its major competitors.	.73
Eigenvalue: 3.44, Percentage of variance explained: 26.45%, Alpha: .85	
Factor 2: Low-cost advantage	
We compete by taking ownership over suppliers.	.90
We compete by pricing at the below-average-market-price level.	.88
We compete by taking ownership over distributors.	.88
Eigenvalue: 2.91, Percentage of variance explained: 22.38%, Alpha: .88	
Factor 3: High-differentiation advantage	
We compete by delivering high product quality for a comparable price.	.85
We compete by designing R&D based unique products.	.78
We compete by promoting superior after-sales services and support.	.70
We compete by charging higher prices for our products.	.60
Eigenvalue: 1.83, Percentage of variance explained: 14.05%, Alpha: .77	
Factor 4: Achievement of top management's objectives over profitability	
The export venture has achieved much better profitability than its major competitors.	.89
The export venture has far exceeded top management's expected profit objectives.	.79
Eigenvalue: 1.19, Percentage of variance explained: 9.14%, Alpha: .72	

Factor one is comprised of five items pertaining to *operational process flexibility* that accounted for 28.85% of variances explained. This factor refers to the firm's ability to provide quick responses to changes in specific export venture markets in the forms of adjustments over service levels, container movements, work ranges, small-batch processing and data-sharing with suppliers/distributors. Factor two consisted of three items pertaining to *strategic technology-sourcing flexibility* that accounted for 15.9% of the explained variances. This factor refers to the firm's ability to gain access to the needed new technologies for specific export venture markets via very different partnership arrangements including company acquisitions, contracting-out and licensing arrangements. Factor three involved two items pertaining to *volume flexibility via subcontracting* that explained for 13.96% of the total variances. This third factor refers to the firm's ability to subcontract its production of component parts and overflow work to multiple suppliers in responses to changes in specific export venture markets.

Regarding marketing capability as a kind of predictor variable of market-focused flexibility, a two-factor solution that explained 77.25% of the total variance was adopted. Factor one is comprised of two items relating to *marketing capability in new product introduction* that explained 57% of the variance. This factor refers to marketing managers' ability to introduce new products and upgrades of existing products to specific export venture markets. Factor two captured three items reflecting *marketing capability*

in information gathering that accounted for 19.87% of the total variance. This latter factor refers to marketing managers' ability to do market research, collect foreign distributors' feedback and assess market growth when marketing to specific export venture markets.

Regarding financing resources as a kind of predictor variable of market-focused flexibility, a two-factor solution that explained 55.78% of the total variance was adopted. Factor one captured three items reflecting *financing resources over handling working capital* that accounted for 34.95% of the total variance. The factor refers to resource acquisition through financial managers' adjustment over timing of payments and receipts as well as long-term fund raising, when marketing to specific export venture markets. Factor two is consisted of four items pertaining to *financing resources over currency risk management* that explained 20.83% of the total variance. This factor refers to resource acquisition through financial managers' use of financial instruments, freight contracts and cross-border fund transfer, when marketing to specific export venture markets.

Regarding spatial activity configuration as a kind of predictor variable of market-focused flexibility, a two-factor solution that explained 70.66% of the total variance was adopted. Factor one captured 11 items reflecting *a dispersed pattern of secondary support activities* that accounted for 57.86% of the total variance. The factor refers to a firm's geographical dispersion of secondary activities with transportation, business negotiation, marketing, market research, after-sales services etc. located in many countries. Factor two is composed of seven items pertaining to *a dispersed pattern of primary production activities* that accounted for 12.8% of the total variances explained. This latter factor refers to a firm's geographical dispersion of primary activities with product design, R&D, sample-making, manufacturing, packaging, assembling and headquarter controlling activities located in many countries.

Concerning export performance and competitive advantage as dependent variables, a four-factor solution that accounted for 72.02% of the variances was adopted. Factor one is composed of four items pertaining to achievement of growth objectives (like growth, market penetration and volume) that accounted for 26.45% of the variance. Factor two consisted of three items pertaining to low-cost advantages (like competitively more efficient operations as a result of taking ownership over suppliers and distributors, charging below-market-average prices) that accounted for 22.38% of the variance. Factor three involved four items pertaining to high-differentiation advantages (like competitively better quality, uniqueness, services and charging high prices) that explained 14.05% of the variance. Factor four covered three items pertaining to the achievement of profitability objectives (like competitively more profitable and far exceeding expected profit) that explained 9.14% of the total variance.

Next, a separate reliability analysis was performed for each of the factor-based scales. As shown in Tables 2–4 with the exception of 'operational process flexibility' and 'financing resources over currency risk management' the coefficient alpha of all the remaining factor-based scales was above 0.70 indicating satisfactory internal consistency (Hair et al., 2000). Furthermore, Table 5 shows the zero-order correlations among the constructs and provides a general picture of their interrelationships. The confidence interval around the correlation estimate between any two constructs never includes 1.0 that indicates that there is discriminant validity in the factor-based scales.

Table 5 Construct correlation matrix

Construct		*X1*	*X2*	*X3*	*X4*	*X5*	*X6*	*X7*	*X8*	*X9*	*X10*	*X11*	*X12*
Marketing Capability in new product introduction	X1												
Marketing Capability in information gathering	X2	.50 **											
Financing resources over handling working capital	X3	.11	.07										
Financing resources over currency risk management	X4	.11	.12	.25 *									
Spatial configuration in dispersing secondary activities	X5	.10	.20	.30 *	.24 *								
Spatial configuration in dispersing primary activities	X6	−.00	.19	.28 **	.32 **	.67 **							
Operational Process flexibility	X7	−.03	.25 *	−.07	.13	.01	.02						
Strategic technology sourcing flexibility	X8	.14	.36 **	.09	.22 *	−.02	.11	.22 *					
Volume flexibility via subcontracting	X9	.25 *	.06	.14	.18	.30 *	.04	.25 *	.22 *				
Achievement of sales objectives	X10	.14	.21 *	−.04	.12	−.07	−.03	.35 **	.25 *	−.04			
Achievement of profit objectives	X11	.26 **	.23 **	.11	−.15	.02	−.10	.08	.16	.12	.35 **		
High-differentiation advantage	X12	.04	.19	.04	.25 *	.18	.16	.50 **	−.10	.12	.28 **	−.04	
Low-cost advantage	X13	−.10	.21 *	.22 *	.42 **	.34 **	.45 **	.16	.30 **	.08	.01	−.24 *	.18

Notes: * Correlation is significant at 0.05 level; ** correlation is significant at 0.01 level.

3.2 Multiple regression analysis results

In this study, regression analysis was utilised to assess the effect of marketing capabilities, financing resources and spatial configurations on market-focused flexibility. In addition, in order to control for the effect of objective resource factors on flexibility, and that of environmental uncertainty factors underlying the need for flexibility, variables such as the number of employees (Holzmuller and Kasper, 1991; Holzmuller and Stottinger, 1996), number of country markets served (Kaynak and Kuan, 1993; Diamantopoulos, 1998) and rate of product/service innovation in the related industries (Porter 1980; Porter, 1985), were entered as control variables into the regression equation before testing the hypotheses in the study. The direct effect of the firm's marketing capabilities, financing resources and spatial configurations on market-focused flexibility were confirmed (see Table 6). The independent variables together accounted for 22%, 24% and 21% of the variance on market-focused flexibility over operational process, strategic technology sourcing and tactical subcontracting decisions, respectively.

Table 6 Regression analysis of marketing capability, financing resources, and spatial configuration on market-focused flexibilities

Independent Variables	*Operational Process Flexibility*	*Strategic Technology Sourcing Flexibility*	*Volume Flexibility Via Subcontracting*
Independent variables:			
Marketing capability in new product introduction	.41 **	.33 *	.04
Marketing capability in information gathering	–.26 #	.06	.08
Financing resources over handling working capital	–.09	–.34 #	.35 #
Financing resources over currency risk management	.15	.18	–.44 *
Spatial configuration resources in dispersing secondary activities	–.13	.26 #	.21
Spatial configuration resources in dispersing primary activities	–.18	.25 #	.30 *
Control variables:			
Number of employees	–.19	–.08	.06
Number of country markets	.11	–.11	–.07
Environmental uncertainty over innovation	.30 *	–.33 *	.11
R square	.35	.37	.34
Adjusted R square	.22	.24	.21
F-change (sig.)	2.54 *	4.12 **	2.91 *
N	111	111	111

Notes: # Significant at 0.10 level; * significant at 0.05 level; ** significant at 0.01 level.

Table 6 provides the estimation results of the predictor model of market-focused flexibility. The results provide support for hypothesis 2b: marketing capability, in the form of new product introduction generates market-focused flexibility over operational processes (.41, $p < .01$) and strategic technology-sourcing partnership arrangements (.33, $p < .05$) in very significant ways. Surprisingly, in contrast to hypothesis 2a, marketing capability in the form of market information collection (–.26, $p < .1$) is *negatively* related to operational process flexibility in a marginally significant way. This surprising finding can be explained by an appreciation of the inherent process of market information collection. By nature, global market sensing and market information gathering would provide multiple and often conflicting inputs (Day, 1994). In face of information dilemmas, whether flexible operations can be generated depends very much on synthesis and optimisation across multiple markets (Craig and Douglas, 2000). Conflicting information and evidences might hamper operational flexibility. Nonetheless, hypotheses 2a and 2b are not supported in that the current findings show no significant relationship between marketing capabilities and market-focused flexibility over tactical subcontracting decisions. As a whole, hypotheses 2a and 2b are partially supported.

The second set of hypotheses focuses on the effect of financing resources on market-focused flexibility. Marginal support was found for hypothesis 3a: financing resource that was acquired through maintenance of liquidity of assets (.35, $p < .1$) generates market-focused flexibility over subcontracting decisions. Surprisingly, in contrast to hypothesis 3a, financing resource that was acquired through maintenance of liquidity of assets (–.34, $p < .1$) is *negatively* related to market-focused flexibility over strategic technology-sourcing decisions. A preference of maintaining liquidity of assets and resources calls for a reduction of specialised commitment in technological projects (Aaker and Mascarenhas, 1984). Seemingly, financial managers that acquire resources through maintenance of liquid assets may restrict the flexible options, in that the firm may not consider gaining access to new technologies through substantial investment options like company acquisition or alliance formation. Partial support is found for hypothesis 3a as a result. Another unexpected finding also emerged in that contrary to hypothesis 3b, a financing resource that was acquired through management of exchange risk (–.44, $p < .05$) is related to market-focused flexibility over subcontracting decisions in a *significant but negative* way. This unexpected finding can be explained via transaction cost analysis concepts. The downside risk and costs of contract manufacturing may offset the cost advantage of subcontracting work (Schilling and Steensma, 2001), since contract manufacturing may impose significant transaction costs upon a firm in terms of well-specified contracts and well-communicated product design, cost and quality requirements. Yet, hypotheses 3a and 3b are not supported in that the present results show no significant relationship between financing resources and market-focused flexibility over operational processes. As a whole, hypotheses 3a and 3b are partially supported.

The fourth set of hypotheses focus on the effect of spatial configuration on market-focused flexibility. The current findings support hypothesis 4b: a dispersed pattern of primary production activities generates market-focused flexibility over subcontracting decisions (.30, $p < .05$) as well as strategic technology-sourcing decisions (.25, $p < .1$). Furthermore, marginal support was found for hypothesis 4a in that a dispersed pattern of secondary support activities generates market-focused flexibility over strategic technology-sourcing decisions (.26, $p < .1$). Yet, hypotheses 4a and 4b are not supported

as the current findings found no relationship between spatial configuration and market-focused flexibility over operational processes. Partial support is consequently reported for hypotheses 4a and 4b.

With regard to the control variable of environmental uncertainty underlying the need for flexibility (.30, $p < .05$), as reflected by rate of product/service innovation in the related industries (Porter, 1980; Porter, 1985), it is related to market-focused flexibility. The current finding gave support to Johnson et al.'s (2003) idea that in highly dynamic or turbulent environments, flexibility is very much needed. As market-focused flexibility equips the firm to anticipate how macro environmental effects play out in the firm's task environment, the proper alignment between the turbulence of environment and the level of flexibility might enhance the firm's performance (Johnson et al., 2003).

Multiple regression analysis was also utilised in this study to assess the effect of the firm's market-focused flexibility on its performance and competitive advantage in the corresponding markets. In order to control for the effect of market and environmental characteristics on export performance, export market's growth rates (Szymanski et al., 1993), competitive intensity and hostility (Naidu and Prasad, 1994; Li and Ogunmokun, 2000), threat from substitutes in the industry (Porter, 1990), environmental uncertainty as a result of diverse production methods (Porter, 1990) and export barrier changes (Rabino, 1980; Kaynak and Kuan, 1993) were entered as control variables into the regression equations before testing the hypotheses in this study. The direct effect of the firm's market-focused flexibility on export performance and competitive advantage was confirmed (see Table 7) and hypotheses 1a–1c were supported. The independent variables together accounted for 31% and 24% of the variance on export venture achievement over sales and profit objectives, respectively. Market-focused flexibility variables also explained 51% and 25% of the variance on export venture competitiveness in terms of high-differentiation and low-cost advantages, respectively.

Notably, it is shown that market-focused flexibility over operational processes has a very powerful positive influence on export sales performance (.35, $p < .01$) and export differentiation-based advantage (.31, $p < .000$). These current findings reinforced Grewal and Tansuhaj's (2001) results in that strategic flexibility has a very strong impact on the firm's performance. Furthermore, market-focused flexibility over strategic technology-sourcing partnership arrangement has a very significant positive influence on export low-cost advantage (.27, $p < .01$). Nonetheless, contrast to prior expectations, this study found that market-focused flexibility over strategic technology-sourcing partnership arrangement (–.23, $p < .01$) has a significant but negative impact on export differentiation-based advantage. This finding reinforced the contingency view (Steensma and Corley, 2000) that the influence of technology on technology-sourcing performance depends on its (flexible) partnership arrangements. Seemingly, whereas the use of licensing to gain access to a new technology with questionable values (Steensma and Corley, 2000) can improve operational efficiency and hence build up a low-cost advantage; the use of acquisition to gain access to a new and unique technology can worsen its short-term financial performance and hence destroy any differentiation-based advantage. Perhaps, as suggested by the finance literature (Jensen and Ruback, 1983; Bazerman, 1994; Leonard-Barton, 1995; Valery, 1999), the acquiring firm has paid too much for the needed technology when it acquired the partner firm. Alternatively, the acquisition literature suggested that post-acquisition integration affects whether the

intended benefits of acquisition would materialise. It seems that the competitive advantages of technology sourcing through acquisition has to be accessed with due consideration over acquisition premium and subsequent integration efforts.

Table 7 Regression analysis of market-focused flexibilities on export competitive advantages and economic performance

Independent Variables	*Achievement of sales objectives*	*Achievement of profit objectives*	*High-differentiation advantage*	*Low-cost advantage*
Independent variables:				
Operational Process Flexibility	.35 **	.20 #	.31 ***	–.05
Strategic technology sourcing flexibility	.11	.10	–.23 **	.27 **
Volume Flexibility Via Subcontracting	–.17 #	–.02	.10	.09
Control variables:				
Market growth rates	.26 **	.33 **	.13 #	–.03
Number of competitors	.18 #	–.24 *	.19 *	–.01
Competitive hostility	.01	.13	.05	–.23 *
Threat from substitutes	–.13	–.06	.20 *	–.05
Environmental diversity	–.05	–.17 #	.37 ***	.30 **
Environmental uncertainty	.22 *	–.21 *	-.02	.29 **
R square	.37	.31	.56	.32
Adjusted R square	.31	.24	.51	.25
F-change (sig.)	5.01 **	2.03	7.57 ***	3.18 *
N	111	111	111	111

Notes: Environmental dynamism is measured by the level of change in the first three years of operation of an export venture in terms of number of competitors, hostility of rivalry, threats of substitutes, diversity of production methods, and uncertainties of export barriers on a 5-item Likert scale with 1 = greatly decreased and 5 = greatly increased.

Significant at 0.10 level; * significant at 0.05 level;** significant at 0.01 level;*** significant at 0.001 level.

Unexpectedly, the present results also suggested that market-focused flexibility over subcontracting arrangement (–.17, $p < .1$) has a marginally significant but negative impact on export sales performance. One possible explanation for this unexpected result is that uncertain demand and shifting design requirements might mean inefficiency in forming market contracts (Schilling and Steensma, 2001) and the two parties to the subcontracting arrangement might come to different conclusions as to what needs to be done and could lead to inefficient subcontracting outcomes. Concerning the control variables effect, as expected, firms operating in rapidly growing, highly competitive markets with serious threats from substitutes, and firms challenged by widely different production methods and frequent changes of export barriers, tend to report higher levels of market-focused flexibility.

4 Conclusion

Based upon the strategic marketing perspective, this study identified three sets of antecedents of market-focused flexibility: marketing capabilities, financing resources and spatial configurations. The empirical evidences showed reasonable support for the proposed model. This study also brought clear evidence demonstrating the powerful effect of market-focused flexibility on competitive advantages and performance in the corresponding markets.

5 Managerial implications

In light of the current findings on antecedents and consequences of market-focused flexibility, there are three major lessons for international business managers. First, with respect to the present antecedent effects, managers should pay special attention to the fact that different capabilities, resources and configurations are needed for creating different kinds of market-focused flexibilities. Specifically, a firm should develop its marketing capability over new product introduction as such a capability is the underlying force for flexible operations. Besides, a firm ought to ensure sufficient financial liquidity since such a kind of financial resource is a critical driver behind subcontracting flexibility. Furthermore, a firm should build up a dispersed production and marketing configuration as such a pattern of diversified activities is conducive to technology-sourcing flexibility. In short, different combinations of resources/capabilities/configurations could give rise to different flexible arrangements.

Second, with regard to the effects of market-focused flexibility, the present results clarify the varying impact of the three types of market-focused flexibility on a firm's performance and competitiveness. In a positive way, international business managers are well-advised to build up operational flexibility as this type of flexibility leads to superior sales, profits as well as differentiation advantages. Flexibility over technology-sourcing, on the other hand, contributes to low-cost advantages. In sum, the omnipresent performance effect of operational flexibility should be duly noted.

Finally, looking from a strategic marketing management perspective, environmental uncertainty and market characteristics could be the underlining factors driving the need for flexibility and accounting for varied firm performance and competitiveness. When interpreting the resultant findings together, it appears that uncertain market environments characterised as having a high rate of product/service innovation at an industry level encourages operational flexibility, such an uncertain market also has a positive contribution to sales performance. This implies that when faced with a high rate of industrial innovation, international business managers should build up operational flexibility that paves the way for the achievement of sales objectives.

Different firms set different performance objectives. For sales-oriented firms, it is suggested that they should set their targets on markets with high-growth rates and get prepared for high innovation rates in the associated industry by building up operational flexibility. For profit-oriented firms, it is recommended that they should set their eyes on markets with a few number of competitors and thereby face a relatively lower rate of industry innovation and thus reduce the need for flexible arrangements. As for firms that compete on the basis of low-cost, they should take advantage of diverse production methods in the industry, and be prepared to face competitive hostility by tapping into

low-cost sources of technology via contract-out R&D and licensing arrangements. Last but not least, as for firms that compete on the basis of a differentiation advantage, they should benefit from the competitive effect arising out of the threat from substitutes and rivals, and capitalise on diverse production methods in the associated industry to build up operational flexibility in support of differentiated/innovative product/service offerings.

6 Limitations and future research directions

The implications of this study should be seen within the context of its limitations that could also provide the basis for directing future research. Based on a strategic marketing perspective, this study examined a subset of antecedents of market-focused flexibility. Future research should investigate additional antecedents of market-focused flexibility. First, caution should be placed on investigating marketing's information collection capability as a predictor of flexibility. In keeping with the market-orientation literature (Jaworski et al., 2000), while a market-orientation provides strong norms for learning from customers and competitors through market information collection, the cultural values of a market orientation are not sufficient for the creation of higher order learning (Argyris, 1977; Senge, 1990). In other words, information acquisition must be complemented by intelligence dissemination to generate organisational learning and responsiveness functions (Slater and Narver, 1995). This implies that additional research could examine the effect of such marketing capabilities as information dissemination, shared interpretation and responsiveness functions, on the development of market-focused flexibility.

Second, while support was found for a pattern of dispersed primary production activities on market-focused flexibility, no support was generated for a pattern of dispersed secondary support activities in this study. In the light of this finding, further research effort is called for to explore ways and mechanisms through which geographically dispersed activities help to build up market-focused flexibilities. Craig and Douglas (2000) suggested several issues needed to be further explored including: how global learning occurred, how knowledge was transferred and shared across subsidiaries, and how global information systems, like new internet channels, facilitate the exchange of information and sharing of best practices among managers in different locations throughout the globe.

With regard to the measurement issues, perceptual measures were used in this study to assess the three key dimensions of market-focused flexibility. A more sophisticated approach in measuring market-focused flexibility should take into account on which dimensions the product options/models vary (Worren et al., 2002), for example, whether the options represent different peripheral options or more fundamental re-combinations of key components.

In conclusion, while this study provides theoretical and practical insights into market-focused flexibility, future studies need to extend the study and its implications to a larger sample and different business/country settings to reinforce confidence in the generalisability of the findings.

References

Aaker, D.A. and Mascarenhas, B. (1984) 'The need for strategic flexibility', *Journal of Business Strategy*, Vol. 5, No. 2, pp.74–82.

Achrol, R.S. and Kotler, P. (1999) 'Marketing in the network economy', *Journal of Marketing*, Vol. 63, pp.146–163.

Ansoff, H. (1965) *Corporate Strategy*, McGraw Hill, NY.

Argyris, C. (1977) 'Double loop learning in organizations', *Harvard Business Review*, Vol. 55, pp.115–125.

Axinn, C.N. (1988) 'Export performance: do managerial perceptions make a difference?', *International Marketing Review*, Vol. 5, No. 2, pp.61–71.

Bartmess, A. and Cerny, K. (1993) 'Building competitive advantage through a global network of capabilities', *California Management Review*, Vol. 35, pp.78–103.

Bazerman, M. (1994) *Judgment in Managerial Decision Making*, Wiley, NY.

Bowman, E.H. and Hurry, D. (1993) 'Strategy through the option lens: an integrated view of resource investments and the incremental-choice process', *Academy of Management Review*, Vol. 18, pp.760–782.

Brown, S.L. and Eisenhardt, K.M. (1995) 'Product development: past research, present findings, and future directions', *Academy of Management Review*, Vol. 20, No. 2, pp.343–378.

Buckley, P.J. and Casson, M.C. (1998) 'Model of the multinational enterprise', *Journal of International Business Studies*, Vol. 29, pp.21–44.

Calantone, R.J., Schmidt, J.B. and Song, X.M. (1996) 'Controllable factors of new product success: a cross-national comparison', *Marketing Science*, Vol. 15, No. 4, pp.402–420.

Carlsson, B. (1989) 'Flexibility and the theory of the firm', *International Journal of Industrial Organization*, Vol. 7, No. 2, pp.179–203.

Cavusgil, S.T. and Nevin, J.R. (1981) 'State-of-the-art in international marketing: an assessment', in Enis, B.M. and Roering, K.J. (Eds): *Review in Marketing*, American Marketing Association, Chicago.

Cooper, R.G. (1979) 'Identifying industrial new product success: project newprod', *Industrial Marketing Management*, Vol. 8, No. 2, pp.124–135.

Craig, C.S. and Douglas, S.P. (2000) 'Configural advantage in global markets', *Journal of International Marketing*, Vol. 8, No. 1, pp.6–26.

Das, T.K. and Elango, B. (1995) 'Managing strategic flexibility: key to effective performance', *Journal of General Management*, Vol. 20, No. 3, pp.60–75.

Day, G.S. (1994) 'The capabilities of market-driven organizations', *Journal of Marketing*, Vol. 58, pp.37–52.

Diamantopoulos, A. (1998) 'From the guest editor', *Journal of International Marketing*, Vol. 6, No. 3, pp.3–6.

Eisenhardt, K. and Martin, J.A. (2000) 'Dynamic capabilities: what are they?', *Strategic Management Journal*, Vol. 21, pp.1105–1121.

Eppink, D.J. (1978) 'Planning for strategic flexibility', *Long Range Planning*, Vol. 11, No. 4, pp.9–15.

Evans, J.S. (1991) 'Strategic flexibility for high technology maneuvers: a conceptual framework', *Journal of Management Studies*, Vol. 28, pp.69–89.

Galbraith, C.S. (1990) 'Transferring core manufacturing technologies in high-technology firms', *California Management Review*, Vol. 32, pp.56–70.

Grewal, R. and Tansuhaj, P. (2001) 'Building organizational capabilities for managing economic crisis: the role of market orientation and strategic flexibility', *Journal of Marketing*, Vol. 65, pp.1–28.

Hair, J.F., Bush, R. and Ortinau, J. (2000) *Marketing Research: A Practical Approach for the New Millennium*, McGraw-Hill Higher Education, international edition, USA.

Hamel, G. and Prahalad, C.K. (1994) 'Competing for the future: what drives your company's agenda: your competitor's view of the future or your own?', *Harvard Business Review*, Vol. 72, No. 4, pp.122–129.

Harrigan, K.R. (1985) *Strategies for Joint Ventures*, Lexington, Lexington Books, MA.

Hart, A.G. (1940) *Anticipations, Uncertainty and Dynamic Planning*, University of Chicago Press, Chicago.

Hayes, R.H. and Pisano, G.P. (1994) 'Beyond world-class: the new manufacturing strategy', *Harvard Business Review*, Vol. 72, pp.77–86.

Hitt, M.A., Keats, B.W. and DeMarie, S.M. (1998) 'Navigating in the new competitive landscape: building strategic flexibility and competitive advantage in the 21st century', *Academy of Management Executive*, Vol. 12, pp.22–42.

Holzmuller, H.H. and Kasper, H. (1991) 'On a theory of export performance: personal and organizational determinants of export trade activities observed in small and medium-sized firms', *Management International Review*, pp.45–70.

Holzmuller, H.H. and Stottinger, B. (1996) 'Structural modeling of success factors in exporting: cross-validation and further development of an export performance model', *Journal of International Marketing*, Vol. 4, No. 2, pp.29–55.

Jaworski, B., Kohli, A.K. and Sahay, A. (2000) 'Market-driven versus driving markets', *Journal of the Academy of Marketing Science*, Vol. 28, pp.45–54.

Jensen, M.C. and Ruback, R.S. (1983) 'The market for corporate control', *Journal of Financial Economics*, Vol. 11, pp.5–50.

Johnson, J.L., Lee, R.P.W., Saini, A. and Grohmann, B. (2003) 'Market-focused strategic flexibility: conceptual advances and an integrative model', *Journal of the Academy of Marketing Science*, Vol. 31, No. 1, pp.74–89.

Kaynak, E. and Kuan, W.K.Y. (1993) 'Environment, strategy, structure, and performance in the context of export activity: an empirical study of Taiwanese manufacturing firms', *Journal of Business Research*, Vol. 27, pp.33–49.

Kogut, B. and Kulatilaka, N. (1994) 'Operational flexibility, global manufacturing, and the option value of a multinational network', *Management Science*, Vol. 40, No. 1, pp.123–139.

Kogut, B. and Kulatilaka, N. (2001) 'Capabilities as real options', *Organization Science*, Vol. 12, No. 6, pp.744–758.

Lau, R.S.M. (1996) 'Strategic flexibility: a new reality for world-class manufacturing', *S.A.M. Advanced Management Journal*, Vol. 61, No. 2, pp.11–19.

Lei, D., Hitt, M.A. and Goldhar, J.D. (1996) 'Organizational design and strategic flexibility', *Organization Studies*, Vol. 17, No. 3, pp.501–523.

Leonard-Barton, D. (1995) *Wellsprings of knowledge: Building and Sustaining the Sources of Innovation*, Harvard Business School Press, Boston, MA.

Li, T. (1999) 'The impact of the marketing-R&D interface on new product export performance: a contingency analysis', *Journal of International Marketing*, Vol. 7, No. 1, pp.10–33.

Li, L.Y. and Ogunmokun, G. (2000) 'The effect of flexibility on export venture performance', *Journal of Global Marketing*, Vol. 14, No. 3, pp.99–126.

Madsen, T.K. (1989) 'Successful export marketing management: some empirical evidence', *International Marketing Review*, Vol. 6, No. 4, pp.41–57.

Maidique, M.A. and Zirger, B.J. (1984) 'A study of success and failure in product innovation: the case of the U.S. electronics industry', *IEEE Transactions on Engineering Management*, Vol. 31, No. 4, pp.192–203.

Malnight, T.W. (1996) 'The transition from decentralized to network-based MNC structures: an evolutionary perspective', *Journal of International Business Studies*, Vol. 27, pp.43–65.

Matusik, S.F. and Hill, C.W.L. (1998) 'The utilization of contingent work, knowledge creation, and competitive advantage', *Academy of Management Review*, Vol. 23, pp.680–697.

Mishra, S., Kim, D. and Lee, D.H. (1996) 'Factors affecting new product success: cross-country comparisons', *Journal of Product Innovation Management*, Vol. 13, pp.530–550.

Moini, A.H. (1995) 'An inquiry into successful exporting: an empirical investigation using a three-stage model', *Journal of Small Business Management*, Vol. 33, No. 3, pp.9–25.

Naidu, G.M. and Prasad, V.K. (1994) 'Predictors of export strategy and performance of small- and medium-sized firms', *Journal of Business Research*, Vol. 31, pp.107–115.

OECD (1994) *Employment Outlook*, OECD, Paris.

Porter, M.E. (1980) *Competitive Strategy: Techniques for Analyzing Industries and Competitors*, New Press, NY.

Porter, M.E. (1985) *Competitive Advantages: Creating and Sustaining Superior Performance*, New Press, NY.

Porter, M.E. (1990) *The Competitive Advantage of Nations*, MacMillan, London.

Rabino, S. (1980) 'An examination of barriers of exporting encountered by small manufacturing companies', *Management International Review*, Vol. 10, No. 1, pp.67–73.

Rumelt, R.P. (1995) 'Inertia and transformation', in Montgomery, C.A. (Ed.): *Resource-based and Evolutionary Theories of the Firm*, Kluwer, NY.

Sanchez, R. (1995) 'Strategic flexibility in product competition', *Strategic Management Journal*, Vol. 16, pp.135–159.

Sanchez, R. (1997) 'Preparing for an uncertain future', *International Studies of Management and Organization*, Vol. 27, No. 2, pp.71–94.

Schilling, M.A. and Steensma, H.K. (2001) 'The use of modular organizational forms: an industry-level analysis', *Academy of Management Journal*, Vol. 44, No. 6, pp.1149–1168.

Senge, P.M. (1990) *The Fifth Discipline*, Doublebay, NY.

Sethi, A.K. and Seith, S.P. (1990) 'Flexibility in manufacturing: a survey', *International Journal of Flexible Manufacturing Systems*, Vol. 2, pp.289–328.

Slater, S.F. and Narver, J.C. (1995) 'Market orientation and the learning organization', *Journal of Marketing*, Vol. 59, pp.63–74.

Song, X.M. and Parry, M.E. (1997) 'A cross-national comparative study of new product development processes: Japan and the United States', *Journal of Marketing*, Vol. 61, p.18.

Souder, W.E., Sherman, J.D. and Davis-Cooper, R. (1998) 'Environmental uncertainty, organizational integration, and new product development effectiveness: a test of contingency theory', *Journal of Product Innovation Management*, Vol. 15, pp.520–533.

Steensma, H.K. and Corley, K.G. (2000) 'On the performance of technology-sourcing partnerships: the interaction between partner interdependence and technology attributes', *Academy of Management Journal*, Vol. 43, No. 6, pp.1045–1067.

Stigler, G. (1939) 'Production and distribution in the short run', *Journal of Political Economy*, Vol. 47, pp.305–327.

Szymanski, D.M., Bharadwaj, S.G. and Varadarajan, P.R. (1993) 'Standardization versus adaptation of international marketing strategy: an empirical investigation', *Journal of Marketing*, Vol. 57, pp.1–17.

Teece, D.J., Pisano, G. and Shuen, G. (1997) 'Dynamic capabilities and strategic management', *Strategic Management Journal*, Vol. 18, pp.509–533.

Upton, D.M. (1995) 'What really makes factories flexible?', *Harvard Business Review*, Vol. 73, pp.74–84.

Valery, N. (1999) 'Innovation in industry: easy way out', *Economist*, Vol. 20, pp.S22–S25.

Wernerfelt, B. (1984) 'A resource-based view of the firm', *Strategic Management Journal*, Vol. 5, pp.171–180.

Worren, N., Moore, K. and Cardona, P. (2002) 'Modularity, strategic flexibility, and firm performance: a study of the home appliance industry', *Strategic Management Journal*, Vol. 23, pp.1123–1140.

Young-Ybarra, C. and Wiersema, M. (1999) 'Strategic flexibility in information technology alliances: the influence of transaction cost economics and social exchange theory', *Organization Science*, Vol. 10, pp.439–459.