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Research Article

A STUDY OF THE EFFECTS OF ENVIRONMENTAL UNCERTAINTY ON THE ELEMENTS OF THE MARKETING COMBINED STRATEGY IN EXPORT MARKETS AND B2B (A CASE STUDY: THE EXPORT COMPANIES OF KERMANSHAH CITY)

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ABSTRACT
Uncertainty is a central and key concept in the organization theory, especially in theories which explain the nature and quality of inter-organizational and environmental relations. The emergence of the project markets can create a high degree of uncertainty for the exporting companies. When designing an international strategy, the managers would apply the risk of engendering perceptual errors in a strategic environment which can lead to a poor marketing combined strategy for a particular market. Based on the methodology of research, the present research is correlation. Also, this is a field study, the information of which was gathered through questionnaires and the library method was also used in organizing the research literature. The alpha of the questionnaire items was 0.917. The present research is practical. Also, based on the quality of gathering the data (research plan) the present paper is descriptive, and based on the data gathering method it is classified as a survey. The statistical population of the research involves all the exporting companies that use the electronic services of Kermanshah Province Customhouse for carrying goods. Regarding the limitation of the statistical population, the formula for calculating the sample size was used for the constraint population (Cochran), based on the relating formula, the sample size equaled 95. In this research, the data was analyzed using SPSS and AMOS. Based on the outputs of AMOS, the hypotheses relating to the relationship between the uncertainty of marketing strategy with entrepreneurial marketing variables, use of internet network and the advancing activities were rejected; in present study the relationships between the uncertainty of marketing strategy with the product development, satisfaction of price and supply location were supported although. In between, the relationship between the uncertainty of marketing strategy and the supply location had the highest effect with coefficient 0.707.

Keywords: *Environmental Uncertainty, Elements of Marketing Combined Strategy, B2b Exporting Markets, Exporting Companies in Kermanshah City, Structural Equations Model*

INTRODUCTION
Introduction and Problem Statement
The industrial market players feel a specific high pressure for getting out to supply security and to increase the sales volume. Since the international activities are extremely important for their operations, the commercial companies are faced with some challenges in designing and implementing the export strategies particular to market, and consider the environmental uncertainty in the target markets which are constantly changing (Katsikeas, 2006).

But what kind of strategy can be considered as a good marketing strategy? The success of an international market is always related to the effective and efficient implementation of a well designed combined strategy of marketing for a particular market.

Therefore it is necessary to reconsider the establishment of internal strategies for the sake of success and various status of the international market when entering a new market (Sousa *et al.*, 2002). One of the main motives for the entrepreneurial marketing activities is trying to adjust the marketing methods with the management style of small and medium corporations and the authentication of the central role of entrepreneurship in any marketing activity.

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Entrepreneurship and marketing are two sides of the coin of business which can cause specific values for customers and consumers. The entrepreneurship marketing is more tended to be innovative rather than customer oriented and the strategies of entrepreneurship marketing will be regulated based on the preferences of the target customers (Golabi *et al.,* 2010). The topic of components and elements of marketing combined strategy is one of the most important subjects to which has not been paid enough attention by the exporting companies, and this subject may endanger the company's sales and existence in fact. Therefore, this study tries to analyze the effects of environmental uncertainty on the above elements to be able to recognize the strengths and weaknesses of each of these companies and present a proper model of the environmental uncertainty in markets of the company. Presently, there are types of serious threats for the majority of companies engaged in export and these companies are able to get rid of the crisis only with considering the decrease or increase of the environmental uncertainty and the elements of marketing combined strategy. According to the aforementioned cases, this research is in search of an answer to the question that whether the environmental uncertainty has any effects on the elements of marketing combined strategy in the export and B2B markets (the exporting companies of Kermanshah province which use the electronic services of Kermanshah Province Customhouse for exchanging goods in 2014)?

Backgrounds of Research

- Presenting a model for the impact of sales strategy and marketing on the sales performance of the managers, the marketing or pundits, DehdashtiShahrokh and Pourhoseini (2012) studied the data of companies active in the food industry and members of Tehran Stock Exchange. The findings suggest that the sales and marketing strategy has a positive and significant relationship with the sales operation, and the transformative leadership, the extent of competition and the technological upheavals have large moderating effects on this relationship. The effect of the demand uncertainty on the sales strategy and sales operation was not supported.
- Maleki (2010) in a research called the effects of technologic combination of exports dealt with the economic growth of Iran. The results confirm the value of time series model with two simple and generalized techniques of ordinary least squares, use the productivity differentiation hypothesis in applying the production factors in the technology-taking exports sections, recognize the technology-taking sections of non oil exports as more influential on the growth and specifically stress the role of industry with low technology in the economic growth of our country.
- Golabi *et al.,* (2010) in a research dealt with the combined concept of marketing in the small and medium Iranian food industry corporations. The results suggested that the combined component of marketing in the small and medium corporations involve 5 main elements (individual "manager/possessor", products, price, location, promotion) and 49 components; the first element was added to the typical items as a new element of extraction in the process of study. Meanwhile, the hypothesis was reinforced that the marketing combined strategy in the studied small and medium corporations was different from the typical marketing combined strategy and it involved 5 elements of individual, price, location, promotion and product.
- Litao *et al.,* (2013) presented a model for advancing the business model in the productive corporations. In that research some changes were created in the present business model to evaluate the value chain, designing and supplying special products or services. The results suggested that regarding the various levels of market and also the expectations of customers, the productive corporations should be integrated and responsive and act according to the requirements of customers in supplying products.
- Shimd and Kotalo in their research which analyzed the international standardizations in business stated that they had considered uncertainty as a vital decision. Uncertainty still plays a central role in the international strategies and has created a concept in the research literature.
- Soza and Beradli (2005) evaluated the effects of psychological distance on the international marketing strategy. They found a gap in this category. It seems that when the internal and external markets are similar, standardization will be a good response and when the psychological distance is high, compatibility will be a better approach.

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Objectives of Research

Main Objective

Measurement of the effectiveness of the environmental uncertainty on the elements of marketing combined strategy in the B2B exporting markets.

Secondary Objectives

- Identifying the effective structures of environmental uncertainty on the elements of marketing combined strategy in the B2B exporting markets.
- Measuring the effective structures of environmental uncertainty on the elements of marketing combined strategy in the B2B exporting markets.
- Ranking the effective structures of environmental uncertainty on the elements of marketing combined strategy in the B2B exporting markets.
- Designing an optimal model for more effectiveness of the environmental uncertainty on the elements of marketing combined strategy in the B2B exporting markets.

Research Hypotheses

Main Hypothesis

The environmental uncertainty has a positive and significant effect on the elements of marketing combined strategy in the exporting markets.

Secondary Hypotheses

- The entrepreneurial marketing in the international arena can cause a reduction of environmental uncertainty through evaluating the combined marketing strategies.
- The exporting companies can reduce their environmental uncertainty through using the internet networks in examining the marketing strategies.
- Evaluating the environment and reducing the uncertainty in the elements of marketing combined strategy may lead to gaining a place in the exporting market.
- The better the environmental evaluation and reduction of the uncertainty of the combined marketing strategy, the more the probability of price satisfaction maybe.
- The better the environmental evaluation and reduction of uncertainty of the marketing combined strategy, the more the satisfaction of promotion plan (advancing activities) maybe.

The Methodology and Tools of Data Collection for Research

Based on the methodology of research, the present research is correlation; in this type of research the relationship between the variables will be analyzed based on the research objectives. The library method was used in preparing the literature review of research. Based on the objectives, the present paper which is about the reduction of environmental uncertainty and the strategy of combined marketing elements is practical, and its objective is to examine the scientific theories in the marketing and its applicable results will be the development of exporting markets. According to the categorization of the research based on the quality of data collection (research plan), the present research is a descriptive study. Based on the data collection method, it is ranked as a survey. The present research enjoys an inductive approach. Regarding the process of conducting, this research is qualitative and regarding the time, it is a cross sectional study. The research is also a field study, for data collection the questionnaires having Likert scale with five options rate were used, the questions of which were classified in seven sections.

The Statistical Population and the Sampling Method and the Sample Size

Amongst the whole exporting companies in Kermanshah province, the statistical population of research involved those which used the electronic services of Kermanshah Province Customhouse in 2014 for trade. The simple random sampling method was utilized and since the sample size was limited, the sample size formula was used for the constraint publication (Cochran); based on the relevant formula, the sample size equaled 95.

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$$n = \frac{\dfrac{1.96^2 \times .7 \times .3}{.05^2}}{1 + \dfrac{1}{165}\left[\dfrac{1.96^2 \times .7 \times .3}{.05^2} - 1\right]} \cong 95/4 = 95$$

Data Analysis Method

In this study, the data collected through questionnaires using proper statistical techniques was analyzed and the results were presented by the statistical descriptive and inferential statistical techniques. In the section of the inferential statistics, 95 responders were male which forms 78 percent of the whole, and most of the population (45 persons), 47 per cent, had bachelors and the least which equals zero per cent had PhDs. According to the description of the research variables (the descriptive indicators of mean, standard deviation and the average standard), among the variables the entrepreneurial marketing have the highest mean (3.28) and the environmental uncertainty has the least mean (3.034). In the descriptive statistics section used in the research SPSS which involves the following cases was used.

- Kolmogorov-Smirnov test
- Correlation test
- T test
- Structural equations test

Firstly, the data normality test (Kolmogorov-Smirnov test) was conducted for the variables by SPSS; the results are shown in the following table:

Table 1: Kolmogorov-Smirnov test results

Hypothesis	Mean	Deviation	Level	Results	Results based on the central limit theorem
The environmental uncertainty variable is normal	3.034	0.091	0.668	Supported	Supported
The product development variable is normal	3.215	0.106	0.115	Supported	Supported
The variable of satisfaction from the sales price is normal	3.178	0.092	0.391	Supported	Supported
The supply location variable is normal	3.063	0.078	0.577	Supported	Supported
The advancing activities variable is normal	3.110	0.087	0.499	Supported	Supported
The entrepreneurial marketing variable is normal	3.284	0.106	0.209	Supported	Supported
The variable of using internet network is normal	3.163	0.080	0.459	Supported	Supported

Regarding the results and the significance level in the last column of the table of Kolmogorov-Smirnov test, you can see that the significance level related to all the variables of research is more than 0.05, and therefore the assumption of normal distribution of the variables will be supported. Regarding the research

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statistical sample (95), all the variables are normal based on the central limit theorem; for measuring the status of variables t-test was used, the results of which is shown in the following table:

Table 2: T test table

Value of test = 3						
Variable name	**The statistical value of test**	**Degree of freedom**	**Significance level**	**Mean differences**	**The distance of the mean certainty from the 95 percent certainty**	
					Upper limit	**Lower limit**
Environmental uncertainty	0.375	94	0.708	0.342	-0.146	0.215
Product development	2.021	94	0.046	0.215	0.003	0.427
Satisfaction of sales price	1.935	94	0.056	0.178	-0.004	0.362
Supply location	0.803	94	0.424	0.063	-0.092	0.219
Advancing activities	1.265	94	0.209	0.110	-0.063	0.284
Entrepreneurial marketing	2.680	94	0.009	0.284	0.073	0.494
Use of internet networks	2.026	94	0.046	0.163	0.003	0.323

Regarding the t test, the status of variables is as follows:

1- Interpretation of the environmental uncertainty variable: regarding the results of the table, the value of the test statistics is 0.375 which is less than 1.96, the upper and lower limits of the dissimilar (positive and negative) signed mean and the significance level equal 0.708 which is more than 0.05, as a result, considering the evidence the null hypothesis is supported while the alternative hypotheses will be rejected.

2- Interpretation of the variable of product development: regarding the table 2, the statistic value of test is 2.021 which is greater than 1.96, the upper and lower limits of the similar signed mean are positive and the significance level equals 0.046 which is less than 0.05, therefore, regarding the evidence we can say that the null hypothesis is rejected while the alternative hypothesis will be supported.

3- Interpretation of the variable of sales price satisfaction: regarding the table 2, the statistic value of the test is 1.935 which is smaller than 1.96, the upper and lower limits of the dissimilar (positive and negative) signed mean and the significance level equal 0.056 which is more than 0.05, therefore, regarding the evidence we can say that the null hypothesis is supported while the alternative hypothesis will be rejected.

4- Interpretation of the variable of supply location: regarding the table 2, the statistic value of the test is 0.803 which is smaller than 1.96, the upper and lower limits of the dissimilar (positive and negative) signed mean and the significance level equal 0.424 which is more than 0.05, therefore, regarding the evidence we can say that the null hypothesis is supported while the alternative hypothesis will be rejected.

5- Interpretation of the variable of advancing activities: regarding the table 2, the statistic value of the test is 1.265 which is smaller than 1.96, the upper and lower limits of the dissimilar (positive and negative) signed mean and the significance level equal 0.209 which is more than 0.05, therefore, regarding the evidence we can say that the null hypothesis is supported while the alternative hypothesis will be rejected.

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6- Interpretation of the variable of entrepreneurial marketing: regarding the table 2, the statistic value of the test is 2.680 which is greater than 1.96, the upper and lower limits of the mean are similar signed and positive and the significance level equals 0.009 which is less than 0.05, therefore, regarding the evidence, we can say that the null hypothesis is rejected while the alternative hypothesis will be supported.
7- Interpretation of the variable of use of internet networks: regarding the table 2, the statistic value of the test is 2.026 which is greater than 1.96, the upper and lower limits of the mean are similar signed and positive and the significance level equals 0.046 which is less than 0.05, therefore, regarding the evidence, we can say that the null hypothesis is rejected while the alternative hypothesis will be supported.
8- Calculating the correlation between the research variables: for calculating the correlation between the variables because the data is normal, the Pearson correlation test was used, and the table below shows the results:

Table 3: Calculating the correlation of the research variables

Variables	Environmental uncertainty	Product development	Satisfaction of the sales price	Supply location	Advancing activities	Entrepreneurial marketing	Use of internet networks
Environmental uncertainty	-	0.640 -sig 0.000	0.568 -sig 0.000	0.707 0.000 - sig	0.089 0.000 - sig	0.090 0.000 - sig	0.024 -sig
Product development	-	1	0.643 -sig 0.000	0.709 0.000 - sig	0.028 0.000 - sig	0.023 0.000 - sig	0.098 -sig 0.000
Satisfaction of sales price	-	-	1	0.709 0.000 - sig	0.091 0.000 - sig	0.113 0.000 -sig	0.073 -sig 0.000
Supply location	-	-	-	1	0.034 0.000 - sig	0.019 0.000 -sig	0.064 - sig0.000
Advancing activities	-	-	-	-	1	0.592 0.000-sig	0.656 - sig0.000
Entrepreneurial marketing	-	-	-	-	-	1	0.693 - sig0.000
Use of internet networks	-	-	-	-	-	-	1

Considering the results of the table, the correlation between all the variables of the research at the significance level of 99 per cent is supported. Since the significance level relevant to the ratios of the whole variables is equal and it equals 0.000 which is less than 0.05, we can say that the relationship between all the correlation variables is significant.
The structural equation modeling and the hypotheses testing: in general, using the structural equation modeling technique and AMOS20, the research hypotheses were examined. In order to achieve that aim, first the normality of data was tested. Finally, the model relevant to the main and secondary hypotheses

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was implemented. The measurement model shows the factor loadings of the observed variables for each latent variable. The relationship power between the (latent variable) factor and the observable variable is shown by the loading factor. Among the fitting indicators, if the ratio of Chi square is less than 2, the model will enjoy a proper fitting. RMESEA indicator less than 0.05 will be suitable. The rest of indicators will also be more proper if they are close to one.

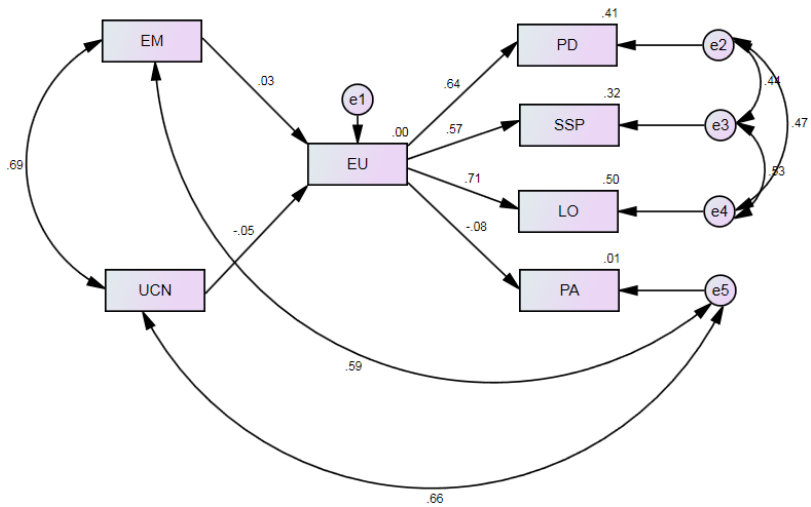

Figure 1: The graph of the reforming structural model of research with the standard coefficients

Fitting Indicators

Table 4: The table of fitting indicators of the general reforming model

General model	X2/df	RMSEA	NFI	CFI	IFI	RFI	PRATIO	PNFI	PCFI
Acceptable value	⟨2	⟨0.05	⟩0.9	⟩0.9	⟩0.9	⟩0.9	⟩0.50	⟩0.50	⟩0.50
Calculated value	1.097	0.032	0.971	0.997	0.997	0.933	0.429	0.416	0.427

Considering the values obtained in the table, the model will enjoy a suitable fitting.

Table 5: For the general model's estimations

Hypotheses results	Standard coefficient	Significance level	Critical ratio	Standard error	Nonstandard estimation	General relation of research variables		
rejected	0.032	0.821	0.226	0.123	0.028	Entrepreneurial marketing	→	Uncertainty of marketing strategy
rejected	-0.046	0.746	-0.324	0.162	-0.052	Use of internet network	→	Uncertainty of marketing strategy
supported	0.640	***	8.086	0.093	0.750	Uncertainty of marketing strategy	→	Product development
rejected	-0.078	0.297	-1.043	0.072	-0.075	Uncertainty of marketing strategy	→	Advancing activities
supported	0.568	***	6.688	0.086	0.576	Uncertainty of marketing strategy	→	Satisfaction of sales price
supported	0.707	***	9.681	0.063	0.609	Uncertainty of marketing strategy	→	Supply location

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Data Analysis and Findings

The results of hypotheses testing: the environmental uncertainty has a positive and significant effect on the elements of marketing combined strategy in the exporting markets.

Regarding the results in table 5, the significance level of hypothesis equals 0.821 which is more than 0.05, therefore the hypothesis will be rejected; it means that the entrepreneurial marketing in the international arena with evaluating the marketing combined strategy will not lead to a reduction of the environmental uncertainty.

Secondary Hypotheses

1- The first secondary hypothesis

The entrepreneurial marketing in the international arena with evaluating the marketing combined strategy will lead to a reduction of the environmental uncertainty.

2- The second secondary hypothesis

The exporting companies will reduce their environmental uncertainty using the internet networks for evaluating the marketing strategies.

According to the results in the table 5, the hypothesis significance level equals 0.746 which is more than 0.05, therefore the research hypothesis is rejected, that means the export companies will not reduce their environmental uncertainty using the internet networks in evaluating the marketing strategies.

3- The third secondary hypothesis

The environmental evaluation and reduction of uncertainty in the elements of marketing combined strategy will lead to the development of products in the exporting market.

Regarding the results in the table 5, the hypothesis significance level equals 0.000 which is less than 0.05, therefore the research hypothesis will be supported; it means that the environmental evaluation and reduction of uncertainty in the elements of marketing combined strategy will lead to the development of products in the exporting market.

4- The fourth secondary hypothesis

The environmental evaluation and reduction of uncertainty in the elements of marketing combined strategy will lead to obtaining a place in the exporting market.

Regarding the results in the table 5, the significance level of the hypothesis equals 0.000 which is less than 0.05, therefore the research hypothesis will be supported; it means that the environmental evaluation and the reduction of uncertainty in the marketing combined strategy will lead to obtaining a place in the exporting market. The extent of that effect is 0.707, regarding the fact that this coefficient is positive, its effect is direct; in other words, with a change of one unit (increase) in the environmental evaluation and the reduction of uncertainty in the elements of marketing combined strategy, obtaining a place in the exporting market will increase to 70 per cent. We can conclude that the individuals in the exporting companies have not found any chance to make progress in their jobs to be able to play an optimal role internationally. In terms of management, the ongoing support of the senior management of the organization is important not only as a guarantee of success in the process of obtaining a place, but also as an aid to the project of developing the new products.

5- The fifth secondary hypothesis

The better the environmental evaluation and the reduction of uncertainty of the marketing combined strategy, the more the probability of price satisfaction will be.

Regarding the results of the table 5, the significance level of the hypothesis equals 0.000 and is less than 0.05, therefore the research hypothesis will be supported, and it means that the better the environmental evaluation and the reduction of uncertainty of the marketing combined strategy, the higher the probability of the price satisfaction will be. The extent of this effect is 0.568, regarding the fact that the coefficient is positive, its effect is direct; in other words, with a change of one unit (increase) in the environmental evaluation and reduction of the uncertainty of the marketing combined strategy the probability of satisfaction of the sales price will increase up to 56 per cent.

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6- The sixth secondary hypothesis

The better the environmental evaluation and the reduction of the uncertainty of the marketing combined strategy, the more the satisfaction of the promotion planning (advancing activities) will be.

According to the results in the table 5, the significance level of the hypothesis equals 0.297 which is more than 0.05, therefore the hypothesis will be rejected; it means that if the environmental evaluation and reduction of the uncertainty of the marketing combined strategy grow, the satisfaction of promotion planning (advancing activities) will not increase.

RESULTS AND DISCUSSION

The objective of the present research is to regard the elements of the marketing combined strategy for the commercial companies (especially those which play a role in the exporting markets and B2B) which may result in the reduction of uncertainty in these markets and can be compatible with the conditions of the foreign markets. The extent of compatibility of the marketing combined elements will be defined as a dependent structure to "the uncertainty of the marketing strategy". In addition to that, the paper tried to take a brief look at the effects of the international entrepreneurship and also applying the internet networks in the general context of decision making.

We examined the probability of decreased sensation of the uncertainty of the marketing strategy with these two capabilities. The findings suggest that we need to have a different view point for every individual element of the marketing combined strategy.

The results show a positive relationship between the ability of a company for evaluating the marketing environment presented and reduction of the uncertainty and compatibility of the product development strategy, pricing and the supply location of products, there is no evidence for compatibility of entrepreneurial marketing and use of internet networks and advancing activities for reducing the environmental uncertainty and examining the marketing strategies. Also the findings will confirm that the offering a general advice for the marketing combined and compatible approach is not possible and the results show that each of the four marketing combined elements should be separately considered. According to the results achieved through this research, the compatibility of price and product and place is extremely important, a factor like price is strongly influenced by culture, so it should be compatible with the foreigner commercial markets.

REFERENCES

DehdashtiShahrokh Zohre and Pourhoseini Amirhosein (2013). Presenting a Model for Influences of Sales and Marketing Strategy on the Sales Performance. *Business Administration* **5**(1) 61-84.

Golabi Amirmohammad, HoseiniSeyed Hamid, Khodadad Rezvani, Mehran Yadollahi and Farsi Jahangir (2010). The Combined Conceptualization of Marketing in the Small and Medium Iranian Food Corporations. *Business Administration Outlook* **2**, Consecutive 35 27-42.

Katsikeas CS (2006). Global Marketing of Industrial Products: Contemporary Developments and Future Directions. *Industrial Marketing Management* **35**(5) 540–5.

Leitão and Faustino H (2013). Portuguese Foreign Direct Investment Inflows: An Empirical Investigation. *International Research Journal of Finance and Economics* **38** 190-197.

Maleki Amin (2010). The effects of the Technological Composition of Exports on the Economic Growth. *The Quarterly of Commerce Research* **56** 176.

Sousa CMP and Bradley F (2005). Global Markets: Does Psychic Distance Matter? *Journal of Strategic Marketing* **13**(1) 43–59.

Sousa CMP, Martı´nez-Lo´ pez FJ and Coelho F (2002). The Determinants of Export Performance: A review of the Research in the Literature between 1998 and 2005. *International Journal of Management Reviews* **10**(4) 343–374.

Sousa CMP, Martı´nez-Lo´ pez FJ and Coelho F (2008). The Determinants of Export performance: A Review of the Research in the Literature between 1998 and 2005. *International Journal of Management Reviews* **10**(4) 343–374.