Measuring market orientation in several populations
A structural equations model

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Introduction

Over the last decade there has been a growing interest in the market orientation concept (Day, 1992; Grönroos, 1989; Webster, 1988, 1992) and its usefulness in increasing businesses' economic performance (Jaworski and Kholi, 1993; Narver and Slater, 1990; Reukert 1992). In most studies market orientation is defined as either the adoption of a marketing concept (see Deng and Dart, 1994; Deshpandé *et al.*, 1993; Hooley *et al.*, 1990; Kholi and Jaworski, 1990) or as the adoption of a high-quality marketing practice (see Kohli *et al.*, 1993). However, in most cases it is not clear how marketing is defined, or a definition of marketing that has not been empirically validated is used. This poses a serious difficulty to any attempt to compare the various studies on the market orientation concept.

The first empirically validated market orientation measure was developed by Narver and Slater (1990). They define market orientation as organizational culture and climate composed of: customer orientation, competitor orientation, and interfunctional orientation. For each of these components, they generate a set of items and obtain component scores as an unweighted sum of the items corresponding to each component. Finally, Narver and Slater report the correlations among these three components. Despite the importance of their pioneering effort, Narver and Slater's work has been criticized on several grounds. For instance, Webster (1994, p. 223) noted that "…although they had no specific measures of company or business unit culture, they used the concept of culture to interpret some of their results". Methodologically, their work is suspect since the assignment of items to components was made on purely theoretical grounds. No attempt was made to test empirically the match of the individual items to each of the components. With respect to this, after inspecting the content of the items, Siguaw and Diamantopoulos (1994) point out that even the theoretically driven assignment of the items they generate to components of their model is questionable. To these criticisms, we would add that these authors neglect the importance of the distributors and the environment as stakeholders in their operationalization of market orientation (Rivera, 1995).

Kohli *et al.* (1993) have proposed and empirically validated an alternative market orientation measure. These authors delineate the construct's domain by conducting personal interviews with managers. Then, after generating a set of

items that match their definition, they select the best items according to the opinions from marketing and non-marketing managers. The resulting set of items is finally analysed using confirmatory factor analyses. Although the authors' empirical procedure is more systematic than Narver and Slater's (1990), it is not without criticism. An obvious criticism of this work is that these authors equate market orientation with the implementation of the marketing concept. However, marketing does not have a universally accepted definition (Thomas, 1994; Webster, 1994), and it is not clear which among the several existing conceptions of marketing they rely on. Also, by relying on the marketing concept to define market orientation, they neglect the interfunctional conflict generated by the leadership of the marketing function in the firm. Also, these authors decrease the importance of the roles of the distributors, the environment, and the competitors who are important stakeholders directly intervening in the competitive strategies of the market. Kohli *et al.* (1993) also assume that the managers interviewed are aware of the market orientation problems and are able to establish the conceptual identity of market orientation. These assumptions are probably not very realistic since there is not a unanimous agreement on what the market orientation concept is in the literature. Nor, therefore, is it likely that agreement among the managers interviewed exists. For instance, Trustrum (1989) uses the terms market orientation and orientation to marketing synonymously. Chang and Chen (1993) use market orientation, marketing orientation and orientation to the client interchangeably. Webster (1994) refers to marketing orientation and orientation to the client, but not market orientation, while Sharp (1991) distinguishes between marketing orientation and market orientation.

Kohli *et al.*'s (1993) work can also be criticized on methodological grounds since they used a small sample of firms from different sectors, but they do not provide information about the characteristics of these firms (e.g. size, economical activity). Hence, it is not possible to determine to which sectors it would be possible to generalize their results. Their sample size is also too small to claim that their study can be generalized for all firms.

In this paper, we use two representative samples of Belgian and Spanish insurance companies. The insurance sector is of particular interest from the market orientation viewpoint, as it works with intangible commodities in which service, quality, and customer orientation are crucial elements[1]. The competitive characteristics generated by the European Common Market provide an additional interest in studying market orientation in this area. The insurance sector in Europe has traditionally operated subject to strict regulations and strong protection from international competition. For some years now the European Commission has been working on the liberalization of this sector. Effective implementation of this has brought about a major increase in competition within the sector and has provoked a major restructuring of insurance companies and groups. The competitive climate in Europe has also been influenced by the economic crisis and changes in consumer behaviour. European customers now show greater service expectations and less loyalty.

As a result, rivalry among competitors is increasing, as is the importance of competitive strategies adapted to this sector's needs.

In recent years, the insurance sector in Belgium as well as in Spain shows high growth rates, especially in life insurance. This opportunity for growth is attracting foreign groups and as such constitutes a major challenge to domestic insurers. In this background, the degree of orientation towards the customer, distributors, competition, and the general socio-economic environment is becoming an increasingly important area of study, not only for academics but for the business world as well.

In this framework, the purpose of this study is threefold:

(1) To propose a precise, theory-based, market orientation definition.

(2) To develop an operational measure of market orientation that taps as closely as possible this theoretical construct.

(3) To examine the validity and reliability of this measure in two well-defined populations, the domain of Belgian and Spanish insurance companies.

A definition of market orientation
Based on the use of information and within organizations and the selection of markets to be satisfied, Rivera (1995) has defined market orientation as a strategy used to reach a sustainable competitive advantage (SCA).

Competitive advantage results from the use of resources and capabilities to generate differential satisfaction in profitable markets. Sustainability is achieved because the performance of the market orientation's behaviours requires complex organizational knowledge that cannot easily be duplicated by competitors. It is also achieved because the market orientation achievement requires constant monitoring and encouraging the personnel's commitment. The satisfaction permits the firm to achieve a psychological differentiation position which leads to brand loyalty and to high profits (Lambin, 1993, 1996).

To obtain and maintain the SCA, the firms must:

• analyse their markets, environments, and competitors;

• use that information to co-ordinate all the organizational departments; and

• develop competitive actions on their markets, environment and competitors.

In this definition it is assumed that the competitive advantage (costs or differentiation) is a variable used within the strategy to obtain higher performance (Hofer and Schendel, 1978).

Use of information within the organizations
Of the various methods to operationalize and measure the use of information (Menon and Varadarajan, 1992), we selected one that defines use of information as the degree by which the organizations use market information to co-ordinate

their competitive actions[2]. We assume that it follows a process of analysis, co-ordination and competitive actions.

The analysis stage seeks to collect the information (the raw material of the competitive decision making). This stage constitutes the basis of strategic marketing, the basis of a sustainable competitive advantage (Aaker, 1988), and the initial function of marketing (Cravens, 1987). A manner of absorbing the environment fluctuations is also used to assure a successful adjustment in it (Levitt and March, 1988). We believe that analysis demands the abilities and perspectives of all the departments (Lambin, 1993) and should not be limited to formal studies.

The interfunctional co-ordination assures the participation of the organizational departments in the creation of value for the targeted segments and in the quick response to their demands (Porter, 1985). Interfunctional co-ordination is an important facet because it facilitates the transmission of experience and favours organizational learning (Sinkula, 1994). Also, it is recognized as the basic requirement in an orientation to the client and to the market (Lichtenthal and Wilson, 1992; Narver and Slater, 1990). Interfunctional co-ordination is also the means to communicate the market expectations to the design department, creation department, and products/services delivery department. It may be argued that the process of interfunctional co-ordination follows the sequence: generation, diffusion, and use of information.

The strategic actions which the firm directs to its markets, competitors and macro environment result from the interfunctional co-ordination based on market intelligence. These actions seek to satisfy the market needs as well as the firm's needs. Therefore, the firms' actions are characterized by their anticipation (Lambin, 1993), their promptness (Jaworski and Kholi, 1993) and the compliance with the expectations generated in the profitable segments (Piercy, 1991; Zeithaml *et al.*, 1990).

Selection of the markets to satisfy

We assume that there are several markets that need to be satisfied, as well as several agents that need to be controlled (Arndt, 1979; Bagozzi, 1975). Among these we find: the final customer; the intermediate customer; the competitors; and the macro environment.

The final customers determine the winner of the competitive strategies. Their importance for the firm's actions has been recognized decades ago by many authors (Webster, 1988). Thus, Howard (1983) indicates that the customer-oriented companies are more successful because the sources of their principal restrictions are just life cycle, competition and clients.

The intermediary customers or distributors constitute the firm's first external client (Day, 1990). They allow products or services to be available for the final customer (Whiteley, 1991). They also satisfy and stimulate demand through promotional activities, transmit the companies' image, products' image, and influence the firm's profitability (Lambin, 1993).

The competitors are the organizations that can impede the satisfaction of the markets. They constitute an important moderator of the company's performance

(Day, 1984). For this reason, the competitors are considered the most influential factor in competitive strategies (Aaker, 1988; Day and Wensley, 1988; Porter, 1985).

The macroenvironment is an external phenomenon which influences organizational efficiency (Day and Wensley, 1983; Ruekert *et al.*, 1985; Zeithaml and Zeithaml, 1984) because the firm is an open system that cannot maintain itself. Thus, the environment is one of the principal factors in the strategies' selection (Day, 1990) and, as a result, in some instances the environment defines the product (McKenna, 1991) and constitutes an important factor in the success of a competitive strategy (Porter, 1980).

A measure of market orientation
Our theoretical model can be mapped into eight components, obtained by crossing the four market participants (final customers, distributors, competitors and environment) with the two major stages of the market orientation process (analysis and strategic actions) plus an additional component corresponding to the intermediate stage in the market orientation process (interfunctional co-ordination). Hence the nine components of our model are:

 (1) analysis of the final client;
 (2) analysis of the distributor;
 (3) analysis of the competitors;
 (4) analysis of the environment;
 (5) interfunctional co-ordination;
 (6) strategic actions directed towards the final client;
 (7) strategic actions directed towards the distributor;
 (8) strategic actions directed towards the competitors; and
 (9) strategic actions directed towards the environment.

Previous research (Rivera, 1995) suggests that the interfunctional co-ordination stage can be hard to distinguish empirically from the analysis and strategic action stages when we attempt to measure it separately for each of the four market participants. Hence we shall measure it globally, i.e. across market participants.

Item generation
Based on an extensive review of existing literature on competitive strategies, a set of items was generated in English for each of these nine components. These items reflected the degree in which market-oriented companies should behave according to our theoretical model. The total number of items generated was 62. Each item was scaled on an 11-point scale ranging from zero to ten, where zero indicated that the firm did not develop the practice "in any degree", and ten indicating that the firm developed it "in an intensive degree". The items were translated into Spanish, French and Dutch by translators specialized in

management, and the quality of the translation was subsequently verified using back translation by independent judges.

Item selection
In Belgium, this initial questionnaire was evaluated by four professors of market strategies and six insurance sector managers (marketing and non-marketing). In Spain, the opinion of two professors as well as the opinion of six insurance experts were solicited. These experts' panels evaluated the items' theoretical and practical adjustment to the firms' competitive problems, as well as the difficulty in its comprehension. Some revisions were made to the items and adjustments were made to the sector's own terminology.

Next, a list of the revised items along with a written description of the nine market orientation components conforming to our theoretical model were given to these experts. They were asked to assign each of the items to one of the components (if any). Those items that did not show a 100 per cent inter-rater agreement were discarded.

This resulted in different numbers of items measuring each of the market orientation components. In order to determine if more or fewer items were needed to measure each of these components, the experts were consulted once again. This time they were given a written description of the nine market orientation components and a list of the items ascribed to them in the previous analyses. The experts were asked whether each of the items could be removed from the inventory without causing the construct to be mismeasured and whether additional items were needed to represent the constructs fully. No items were pointed out for removal and the existing items seemed to represent the full complexity of the theoretical constructs intended to be measured. Hence, we are quite certain that the construct is not underrepresented, while we minimized one source of construct irrelevant variance (Messick, 1995).

A set of 36 items resulted from the item analysis of these experts. These items compose the market orientation scale (MOS). Next, we list each of the components, their acronym, and their number of items:

- analysis of the final client (ANALFC: six items)
- analysis of the distributor (ANALDIS: five items)
- analysis of the competitors (ANALCOM: four items)
- analysis of the environment (ANALENV: one item)
- interfunctional co-ordination (COORDIN: five items)
- strategic actions directed towards the final client (ACTIFC: six items)
- strategic actions directed towards the distributor (ACTIDIS: five items)
- strategic actions directed towards the competitors (ACTICOM: two items)
- strategic actions directed towards the environment (ACTIENV: two items).

The items composing the MOS are listed in the Appendix.

Dimensional structure of market orientation

Alternative definitions of market orientation construct exists (e.g. Deng and Dart, 1994; Kohli *et al.*, 1993; Narver and Slater, 1990). They differ in the number of components on which they are based and their hypothesized underlying structure. For instance, Narver and Slater (1990) and Kohli *et al.* (1993) suggest that market orientation consists of three components with an underlying one-dimensional structure. On the other hand, Deng and Dart (1994) hypothesize that market orientation consists of four components with an underlying ' multidimensional structure.

Considering the managerial importance of this construct, a critical issue seems to be to determine its dimensionality. A further critical issue is obviously whether or not the firms' specific competitive environments influence their market orientation strategy. Thus, in our research we shall investigate (a) the dimensionality of market orientation, (b) whether or not the environment influences the firm's level of market orientation, and (c) whether the environment induces differential use of the market orientation components.

From our theoretical model, three theoretically plausible alternative hypotheses were generated to account for the expected inter-relationships among the items generated as indicators of the nine components of market orientation described above:

H1: In both countries, one latent construct, market orientation, underlies these nine components.

H2: In both countries, two latent constructs, strategic actions and analysis, underlie the nine components. We postulate that all analysis components would be underlined by the analysis actions latent construct. All strategic actions components would be underlined by the strategic action latent construct, while the interfunctional co-ordination component would be underlined by both latent constructs. We also postulated that these two factors would be interrelated.

H3: In both countries, one latent construct, market orientation, would account for most of the inter-relationships among the components, but a second latent construct be needed to account for the relationships among these components specific to each country.

Empirical analysis

Sample description

In both countries the target population was the private insurance companies having market shares larger than 0.05 per cent. The MOS survey was mailed during the last quarter of 1994 and the first quarter of 1995 to all of the companies of the target population (76 companies in Belgium and 104 companies in Spain). The questionnaire was to be answered by the non-marketing manager and the marketing manager of each firm.

Thirty four and 32 companies completed the questionnaires in Belgium and Spain respectively. These companies account for 45 per cent and 43 per cent of the

share of the total number of insurance premiums in Belgium and Spain respectively. The total number of questionnaires received was 102. Of these, 46 per cent corresponded to marketing managers and 54 per cent to non-marketing managers.

Method
Ideally, we would have liked to fit a multiple group second order factor model to the covariance matrices of the items to evaluate the goodness of fit of our theoretical model.

The first order factors would be the hypothesized components and would be interrelated according to the hypotheses specified above. Unfortunately, the very small sample size prevents us from performing such analysis. Instead, we shall assume that the items match the hypothesized structure in nine components, compute scale scores by an unweighted sum of the items corresponding to each component, and fit a model to the inter-scale covariance matrices. Hence, the hypotheses presented above were tested using a two-group factor model utilizing maximum likelihood estimation to the interscale covariance matrices.

Since the sample sizes are rather small, the standard errors and the chi square tests, estimated under asymptotic (large sample) statistical theory, may not be very accurate (Boomsma, 1983). Thus, in addition to the conventional asymptotic chi-square goodness of fit test, we also used the following indices to assess goodness of fit: the Root Mean Squared Error of Approximation (RMSEA) (Steiger, 1990), the Standardized Root Mean Squared Residual (SRMSR)(Jöreskog and Sörbom, 1993), the Goodness-of-Fit Index (GFI)(Jöreskog and Sörbom, 1993), and the Relative Noncentrality Index using the independence model as baseline (RNI)(McDonald and Marsh, 1990; see also Bentler, 1990)[3].

Results
The estimated means, correlations, and standard deviations for the nine components in the Belgian and Spanish samples are presented in Table I. The relationships among the nine components of market orientation appear somewhat similar across countries except for some obvious exceptions: (1) the analysis of the distributors is more strongly related to actions towards the final client and to the strategic actions towards the distributor in Spain than in Belgium; (2) the strategic actions towards the environment are uncorrelated with the other strategic actions and with interfunctional co-ordination activities in Belgium, whereas in Spain they are uncorrelated only with strategic actions towards the competitors.

In this Table we also see that the standard deviations are very similar across samples (with the possible exception of the one for actions towards the distributors) and that the means are very similar across samples relative to the standard deviations.

In order to assess the validity of our hypotheses, we first fitted a one factor model simultaneously to both populations without parameter constraints across groups. This model did not provide a satisfactory fit to these data, $X^2(54) = 125.34$, $p < 0.01$, RMSEA = 0.11, p (RMSEA < 0.05) < 0.01, RNI = 0.85, SRMSR = 0.082, GFI = 0.78.

	ANALFC	ANALDIS	ANALCOM	ANALENV	COORDIN	ACTIFC	ACTIDIS	ACTICOM	ACTIENV
Belgium									
ANALDIS	0.5134**								
ANALCOM	0.6623**	0.5141**							
ANALENV	0.6566**	0.4891**	0.6245**						
COORDIN	0.6420**	0.4353**	0.5335**	0.4421**					
ACTIFC	0.5522**	0.4617**	0.5586**	0.4050**	0.7078**				
ACTIDIS	0.4035**	0.4676**	0.3098*	0.1632	0.5820**	0.5853**			
ACTICOM	0.4270**	0.3290**	0.4649**	0.3474**	0.3373**	0.4158**	0.3193**		
ACTIENV	0.4204**	0.2470*	0.5420**	0.4409**	0.1182	0.0738	0.0839	-0.0084	
Mean	39.68	40.27	21.24	5.44	47.95	82.37	65.43	23.12	10.02
Std Dev	15.22	9.85	7.09	2.88	11.54	17.70	9.53	6.80	6.11
Spain									
ANALDIS	0.5049**								
ANALCOM	0.6990**	0.5243**							
ANALENV	0.6246**	0.5501**	0.5844**						
COORDIN	0.6214**	0.5934**	0.5391**	0.5252**					
ACTIFC	0.5385**	0.7027**	0.4504**	0.5047**	0.6079**				
ACTIDIS	0.2642*	0.7106**	0.4557**	0.4409**	0.4779**	0.5482**			
ACTICOM	0.3916**	0.3364**	0.5353**	0.2226	0.2879*	0.3903**	0.4726**		
ACTIENV	0.4727**	0.4006**	0.6404**	0.3627**	0.3520**	0.3091*	0.3906**	0.4995**	
Mean	48.06	45.71	21.83	5.36	48.69	81.61	62.62	22.33	10.84
Std Dev	15.01	10.81	7.53	2.34	14.03	16.80	15.30	6.57	6.36

Notes:
* Signif. LE, 05
** Signif. LE, 01

N = 34 (Belgium) and N = 32 (Spain). ANALFC = analysis of final client, ANALDIS = analysis of the distributor, ANALCOM = analysis of the competitors, ANALENV = analysis of the environment, COORDIN = interfunctional co-ordination, ACTIFC = strategic actions directed towards the final client, ACTIDIS = strategic actions directed towards the distributor, ACTICOM = strategic actions directed towards the competitors, ACTIENV = strategic actions directed towards the environment

The oblique factor model specified as our *H2* did not satisfactorily fit these data either, $X^2(50) = 116.84$, $p < 0.01$, RMSEA = 0.11, p (RMSEA < 0.05) < 0.01, RNI = 0.86, SRMSR = 0.081, GFI = 0.78. We then tested *H3* by fitting an unrestricted two factor model simultaneously to both populations, as previously, without parameter constraints across groups. This can be accomplished by specifying a row echelon form of the matrix of factor loadings, and uncorrelated factors. This model fits the data much better than the previous ones, $X^2(38) = 58.31$, $p < 0.019$, RMSEA = 0.072, p (RMSEA < 0.05) < 0.16, RNI = 0.96, SRMSR = 0.059, GFI = 0.86. Since the sample size is small, the standard errors for the model parameters are rather large and several factor loadings were non-significant at an $\alpha = 0.05$. We proceeded to fix sequentially the non-significant loadings at this alpha level. The resulting model yielded the following fit indices: $X^2(46) = 61.26$, $p < 0.065$, RMSEA = 0.056, p (RMSEA < 0.05) < 0.37, RNI = 0.97, SRMSR = 0.067, GFI = 0.86. The fit of this model is considered satisfactory. For instance, the residuals appear reasonably small. In Table II we present the

| Variable | Belgium | | | | Spain | | | |
	Factor 1	Factor 2	Uniqueness	R^2	Factor 1	Factor 2	Uniqueness	R^2
ANALFC	14.69 [0.83] (2.12)	0	100.18 (27.59)	0.68	12.64 [0.73] (2.10)	0	143.14 (29.83)	0.53
ANALDIS	3.02 [0.45] (0.94)	2.42 [0.36] (0.93)	29.59 (6.11)	0.33	3.43 [0.52] (0.86)	0	31.77 (6.30)	0.27
ANALCOM	6.17 [0.67] (1.20)	0	47.68 (10.47)	0.45	10.11 [0.66] (1.98)	9.16 [0.60] (2.40)	48.02 (35.01)	0.79
ANALENV	0.49 [0.09] (0.87)	3.75 [0.65] (0.85)	18.94 (5.03)	0.44	3.59 [0.57] (0.82)	0	27.30 (5.45)	0.32
COORDIN	10.11 [0.88] (1.33)	0	30.08 (10.52)	0.77	10.78 [0.75] (1.70)	0	88.40 (18.71)	0.57
ACTIFC	10.63 [0.76] (1.73)	4.90 [0.35] (1.49)	58.38 (13.98)	0.69	12.88 [0.84] (1.79)	−7.41 [−0.48] (2.35)	16.94 (36.21)	0.93
ACTIDIS	4.17 [0.61] (0.91)	4.76 [0.70] (0.77)	6.23 (4.06)	0.85	5.75 [0.78] (0.86)	0	21.17 (4.57)	0.61
ACTICOM	5.46 [0.54] (1.37)	3.33 [0.33] (1.33)	60.04 (12.49)	0.40	8.95 [0.81] (1.32)	3.30 [0.30] (1.11)	32.30 (9.97)	0.74
ACTIENV	1.40 [0.51] (0.38)	1.14 [0.42] (0.36)	4.24 (0.90)	0.42	1.72 [0.72] (0.29)	0	2.72 (0.57)	0.52

Notes:
$N = 34$ (Belgium) and $N = 32$ (Spain). ANALFC = analysis of the final client, ANALDIS = analysis of the distributor, ANALCOM = analysis of the competitors, ANALENV = analysis of the environment, COORDIN = interfunctional co-ordination, ACTIFC = strategic actions directed towards the final client, ACTIDIS = strategic actions directed towards the distributor, ACTICOM = strategic actions directed towards the competitors, ACTIENV = strategic actions directed towards the environment.

The asymptotic standard errors are provided in parentheses. Those parameters without standard errors are fixed parameters (non-significant parameters at an $\alpha = 0.05$). The within group completely standardized solutions are provided in square brackets. The factors are uncorrelated with unit variance in both populations.

parameters and their asymptotic standard errors of this latter model. As can be seen in Table II, the resulting model in both populations is somewhat similar, a two-factor orthogonal model. The first factor can be interpreted as an overall market orientation factor in both populations, whereas the interpretation of the second factor substantively differs in the Belgian and Spanish samples. In Spain, the second factor reflects a contrast between the analysis and the actions oriented towards the competition on one side and the analysis of the final client on the other side. In Belgium, the second factor is considerably more difficult to interpret and probably consists of a residual factor reflecting the specific components of market orientation in insurance companies in Belgium. No alternative two factor model with correlated factors that yielded a better fit than this model was found.

In both countries, the within group completely standardized solution shows that the weight or importance of the nine market orientation components in the first factor is similar, except for the case of strategic actions directed towards the environment, which was not significant in Belgium.

The coefficient of determination for this model, that is, the ratio of variance attributed to the factors to total variance according to the model (see Jöreskog and Sörbom, 1993) was 0.98 in Belgium and 0.99 in Spain. Table II also shows the R^2 for each of the variables according to this model, that is, the ratio of variance attributed to the factors to observed variance. The R^2 ranges from 0.33 to 0.85 in Belgium, and from 0.27 to 0.93 in Spain, for an average R^2 of 0.56 and 0.59 in Belgium and Spain, respectively. This represents an increment of about 22 per cent and 18 per cent over the average R^2 in Belgium and Spain as predicted by the one factor model.

Discussion

We have shown that a two-factor orthogonal model where the first factor can be interpreted is an overall market orientation component and the second factor as a country-specific residual component fits these data satisfactorily. We estimated the reliability of our construct by coefficient omega. Coefficient omega yields the best lower bound to the reliability of a construct when its components can be shown to fit a uni- or multi-dimensional factor model (McDonald, 1985, p. 217). Using the parameters of our two-factor model the reliability for the overall market orientation construct was estimated using coefficient omega as 0.88 in Belgium and 0.87 in Spain. Given our structural model, the objective is to obtain a summary score of market orientation that best conveys the market orientation construct. Since differential item or component weighting has been repeatedly shown to be no better than assigning equal weights (McDonald, in press), we propose using an overall market orientation score obtained as a weighted sum of the nine scales composing market orientation with weights inversely proportional to the number of items in each scale[4].

As for the validity of such score, our use of an experts' panel provides support for the content relevance, representativeness and technical quality of

our scale. Our measure is also strongly theory-based, and by using covariance structure analysis we have obtained support for its structural validity. By carefully specifying the population of interest, the generalizability of our scale can be easily defined. Finally, in order to study the criterion relevance and applied utility of our score, we obtained the market share in 1994 of the insurance firms composing our sample. A regression analysis revealed that the MOS score significantly predicts ($p < 0.05$) market share, $r = 0.29$ and 0.33 in Belgium and Spain, respectively.

Using this overall market orientation score, we found no significant differences ($p = 0.452$) in the mean level of market orientation between insurance firms in Spain ($x = 5.52$, std = 0.138) and Belgium ($x = 5.71$, std = 1.24).

Conclusions

We defined market orientation as the extent to which firms use information about their stakeholders to co-ordinate and implement strategic actions. Hence, our theoretical model of market orientation expands this construct's traditional definitions by integrating the distributor orientation and the environmental orientation. We believe that traditional definitions devalue the interfunctional conflict generated by restricting market orientation to the marketing function.

We have developed a 36 item questionnaire based on our theoretical model of market orientation which assesses firms' concrete market orientation actions and not just their philosophy towards market orientation. This questionnaire was translated into three different languages (Spanish, French and Dutch) and applied to investigate market orientation in private insurance firms in Belgium and Spain. The samples of private insurance firms analysed account for a large percentage of the insurance premiums in these countries, and hence the results obtained in the present study may be representative of the private insurance sector in these countries.

In these populations, we have shown that market orientation shows a two-dimensional structure. The first dimension corresponds to an overall market orientation factor and the second dimension is a country-specific residual factor. It would have been surprising not to find a country-specific dimensions when studying market orientation. This is due to the large structural and market differences in the insurance sector between Belgium and Spain. For example, Spain has a greater competitive rivalry among its firms because its sector offers greater growth opportunities than in Belgium. In this context, we have succeeded in showing the usefulness of the market orientation construct in non-US economies.

The MOS questionnaire has been shown to have high reliability and validity in these populations. As a matter of fact, we have been able to show that market orientation as it is defined here is a valid predictor of business performance in these populations. Given the promising results of the present study, one area of future research will be to develop a intervention programme to promote firms' market orientation. We suggest that the MOS be used as a baseline to establish

a firm's degree of market orientation prior to and after these interventions. Obviously, extensive research is needed to study what individual differences in managerial and non-managerial personnel, as well as what organizational factors, facilitate or hinder market orientation as we have defined it here.

In order to ensure the sample representativeness of our study, only firms from one specific area, private insurance companies, were considered. As a result, the results presented here can only be generalized to this area and to the two countries under consideration, Belgium and Spain. It is possible that these results are generalizable to insurance companies of similar countries, but more research is needed to extrapolate the present study to other economic areas. This is likely to require an adaptation of the item content of the MOS to the specifications of the competitive environment and operations technology of the area of interest.

Finally, managers' assessments of a firm's market orientation is not the only possible indicator of a firm's market orientation. For instance, we suggest that the quality and quantity of the information that market strategies generate (reports, memos, speeches, etc.) may be a valid indicator of a firm's market orientation. Also, the information generated by a firm is not the only source of information about its degree of market orientation. Clearly, it is important to contrast a firm's degree of market orientation as assessed by internal information (e.g. managers' responses to questionnaires as we have done in this study) with this firm's degree of market orientation as perceived by its clients, competitors and distributors. This is probably the most challenging area of future research in market orientation.

Notes

1. At the World Insurance Congress in 1991, Hanway (see Greenwald, 1991) contended that insurers needed to be strongly market-oriented in order to perform more efficiently.
2. As Menon and Varadajaran (1992) point out, Kholi and Jaworski (1990) use a definition that implicitly assumes this perspective.
3. Adequate to good fit is suggested by RMSEA and SRMSR values approaching 0.05. For the GFI and the RNI indices, values between 0.80 and 1.00 indicate adequate to good fit.
4. This is obviously equivalent to constructing an overall market orientation score by an unweighted sum of the individual items.

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Appendix: Item content of the market orientation scale (MOS)
Analysis of the final client

   (1)   We systematically and frequently measure customer satisfaction

   (2)   We periodically analyse our customers' current and future needs

   (3)   We regularly examine the factors influencing the buying decisions of our customers

   (4)   We regularly collect market information to detect the emergence of new segments

   (5)   We periodically measure the customers' image of our product/service

   (6)   We develop a monitoring of the changes in preferences of our customers' system

Analysis of the distributor

    (1)   We systematically and frequently measure distributor satisfaction

    (2)   We regularly examine the current needs of our distributors

    (3)   We analyse the compatibility of our marketing strategy with the objectives of our distributors

    (4)   We systematically analyse the problems that our distributors can have with the marketing of our products

    (5)   We regularly measure the distributors' image of our firm

Analysis of the competitors

    (1)   We analyse our competitor strategies systematically and regularly

    (2)   We systematically examine the strengths/weaknesses of our competitors

    (3)   We frequently monitor competitor marketing variables (price, product, promotion, market)

    (4)   We regularly analyse the evolution of substitute products/services

Analysis of the environment

    (1)   We systematically evaluate the impact of the environment on our customers

Interfunctional co-ordination

    (1)   Market information is diffused systematically and regularly to all functions of the firm

    (2)   Market strategies are developed by all organizational functions in a co-ordinated manner

    (3)   Organizational decisions are executed with a sense of personal commitment to serve the market

    (4)   We systematically organize meetings between the different functions to analyse market information

    (5)   We stimulate an informal information exchange between the different functions of the firm

Strategic actions on final customers

    (1)   We market products/services that adequately satisfy the final customers' current needs

    (2)   We systematically market innovative products/services

    (3)   We are faster than the competitors to respond to the changes of our final customers' needs

    (4)   We rapidly implement the marketing plan

    (5)   We develop strategies to diminish the (monetary and psychological) costs of acquiring our products

    (6)   We inform our final customers on the diverse ways to obtain a better benefit from our products/services

Strategic actions on intermediary customers (distributors)

    (1)   The managers are very committed in the firm's contact with its distributors

    (2)   Distributors are recognized as partners in serving end-users

    (3)   We constantly share information on our marketing strategies with our distributors

(4)   We develop strategies to stress the benefits that distributors obtain from maintaining their relations with our firm

(5)   We rapidly react to satisfy our distributors' complaints

Strategic actions on competitors

(1)   We are faster to respond to competitors' actions directed at our final customers

(2)   We are faster to respond to competitors' actions directed at our distributors

Strategic actions on the macro-environment

(1)   We develop strategies to influence the key groups of the macro-environment (consumers' associations, political groups)

(2)   We undertake systematic activities to stress the benefits that the firm gives to the society in general