

Worth and Competitiveness in Spain's Furniture Sector

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Abstract

This paper has as main objective to analyze the effects of the manager's worth in the competitiveness of the Spain furniture sector. The empiric analysis was done on a sample of 322 furniture producing companies in Spain with twenty or more employees. The results show the experience, abilities and the education have a positive impact in the manager's performance. Also, the performance has a positive impact in the manager's worth and this has a positive impact in the competitiveness of the companies that integrate the furniture sector.

Resumen

Este trabajo tiene como objetivo principal analizar los efectos del valor gerencial en la competitividad del sector mueblero español. El análisis empírico se realizó con base en 322 productores muebleros españoles con 20 o más empleados. Los resultados muestran cómo la experiencia, habilidades y preparación tienen un impacto positivo en el desempeño gerencial. También, el desempeño tiene un impacto positivo en el valor gerencial y en la competitividad de las compañías que integran el sector mueblero.

Keywords: Experience, abilities, education, performance, worth, competitiveness.

Palabras clave:

Introduction

The competitive pressures and thee changes in the international economic market are forcing to the companies to evaluate the effectiveness in the operation and structure of their logistics systems. The oscillations of the local production strategy for a local market to that supply national or international centers for the distribution, have extremely important implications in the organizations, structures, administration, control systems and costs of client service (Burcher

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et al., 2005). In this sense, the logistics, the biggest function in the companies, internally it has suffered many changes from 1950 when several organizations carried out activities to compress this function in fragmentary bases (Quayle, 1993). Actually, the logistics management has passed from a traditional way of orientation to the operation to a strategic orientation (Kohn *et al.*, 1990). This evolution has important implications for the logistics managers (LaLonde, 1990; Zineldin, 2004), since they should adapt to the changes that it requires the business environment and to be multi-functional (Stock & Lambert, 1987; Burcher *et al.*, 2005).

Literature review

The model in this study describes the components of worth and illustrates how they relate to competitiveness. The following sections attempt to clarify the different model components.

Logistics Managers

Actually, the virtual integration of the logistics operations with the materials and services suppliers implies that the logistics managers have to carry out themselves a monitoring and not a direct control of the performance of the logistics activities (Bowersox *et al.*, 2000). These changes affect to the required abilities to hire the managers (Myers *et al.*, 2004; Burcher *et al.*, 2005), especially those referred to the high controls inside the organization (Poist *et al.*, 2001), and to the reach that these they can have with a good formation and experience to confront the changes (Burcher *et al.*, 2005). These changes are broadly documented and discussed in the literature and he has a high interest for a couple of decades, in the discussion of the required abilities to the logistics managers in the United States (Murphy & Poist, 1998; Masters & LaLonde, 1998; LaLonde & Pohlen, 2000; Ginter & LaLonde, 2003), in Asia (Abdur & Shafreen, 2001) and in the European Union (Poist *et al.*, 2001; Burcher *et al.*, 2005).

In this sense, several investigators have studied the pertinent elements of the abilities, the specific functions and the required training for the logistics managers. In spite of the differences in the operations nature, the extensive of the logistics function, the outstanding abilities for the logistics managers spread to be similar in most of the companies (Richardson, 1991a, 1991b; Abdur & Shafreen,

2001). Also, actually to be successful the logistics managers should possess social, time management and problem solving abilities (Herron, 1985; Abdur & Shafreen, 2001); the customer necessities knowledge and the competitive maintenance of their experiences (Buxbaum, 1995; LaLonde & Emmelhainz, 1985; Zineldin, 2004), as well as strategic administration abilities (Richardson, 1991a; 1991b; Wanke & Zinn, 2004).

Competitiveness

The recent revision of the competitiveness literature and its measures is very complicated and it has generated a strongly polemic, what is translated in a complexity of the term. A quick inspection of the competitiveness measures shows an immense variation as much in the reach as in the terms of the analysis level, so much in the nation, industry, company and product levels (Buckley *et al.*, 1988). A simple competitiveness measure can usually be used to illustrate a result in particular, for example, the export reduction is an indicator of loss of competitiveness exporter. In this sense, recently papers have been published that try to examine the limitations in that they are incurred when conceptualizing and to measure the competitiveness (Gorynia, 2005).

Also, the competitiveness literature has a considerable number of ways in which the business competitiveness can be exposed (Porter, 1990, 1998; Hamel & Prahalad, 1990; Casson, 1991; Hill & Jones, 1992; Stalk *et al.*, 1992; Faulkner & Bowman, 1995; Rumelt, 1997; Rugman & Hodgetts, 2000; Gorynia, 2005). Arbitrarily, some aspects of the competitiveness are only considered by the investigators, for example the related ones in the costs and competitive prices, which don't explain in their entirety the competitiveness notion. In this sense, in accordance with Porter (1990), the competitiveness should be treated as synonym of productivity. This approach is very practical if we want to measure the competitiveness, but it is not very useful if we want to understand the competitiveness reasons or determinants. Porter (1990) it is aware of the limitations of the competitiveness identification and the productivity, for he intends a list of factors that they determine the competitiveness. This list contains four elements: incidental conditions, demand conditions, support of the similar industries and business strategy.

On the other hand, Schmidt *et al.* (1986) considered that the experience is a causal effect in the performance labor, through indirect impacts in the knowled-

ge, performance and capacity of the labor. McDaniel *et al.* (1988) considered that for all the experience ratings and it stops labor with a drop or high complexity, the correlation between the experience and the performance of the labor is positive. Other papers also consider the direct relationship between the experience and the performance labor (Blankenship & Taylor, 1938; Taylor & Smith, 1956; Fleishman, 1965; Myers *et al.*, 2004).

H1: The higher level of experience, the higher performance level

The resources can be tangible and intangibles what allow that the business production is efficient and to the offer of products is added value for some markets or segments (Barney, 1991). Also, the most important intangible resources in any organization are the human resources, since the employees develop their work by means of knowledge and abilities (Hunt & Morgan, 1995; Myers *et al.*, 2004) that impact directly in their labor performance (McClelland, 1973; Goleman, 1998; Sandberg, 2000; Myers *et al.*, 2004).

H2: The higher level of abilities, the higher performance level

The annual survey 2003 carried out by the Ohio State University on the formation pattern in logistics, it was applied a population of 2000 executives, finding that 93% of those interviewed had a high school level, 56% an university grade and 22% they possessed a professional certification for some kindred organization to its work (Ginter & LaLonde, 2003; Myers *et al.*, 2004). In this sense, the levels of the logistics managers' formation impact directly in their labor performance (Singer & Bruhns, 1991; LaLonde & Pohlen, 2000; Myers *et al.*, 2004).

H3: The higher level of education, the higher performance level

Actually, the pressure to acquire and to develop new abilities and a better performance of a human resources management, it has generated diverse changes as much to the interior as to the exterior of the organizations. This way, the performance that they have the employees, mainly of the managers, it will affect the management capacity in the organization directly (Daugherty *et al.*, 2000; Myers *et al.*, 2004), therefore, the companies require a good performance of the logistics managers to improve the organization worth and good results are obtained in the production systems and logistics (Barney, 1991; Ginter & LaLonde, 2003; Burcher *et al.*, 2007).

H4: The higher level of performance, the higher worth level

If we considered that the managers' worth is considered as the intellectual capital of the managerial organizations (Zimmerman, 2001; Myers *et al.*, 2004). Then, a better performance of this intellectual capital will allow to the managerial organizations to increase its competitiveness (Myers *et al.*, 2004), that is to say, to increase the levels of competitiveness significantly.

H5: the higher level of worth, the higher competitiveness level

Methodology

The proposed hypotheses were tested by empirical research in Spanish furniture companies. The first phase of the study consisted in qualitative research by means of in-depth interviews with ten managers in several furniture producing companies. The results obtained in this first phase provided more information on the situation in the sector and helped to define the quantitative phase correctly. The procedure used in this study to obtain the reference framework consisted in obtaining the directory of companies with 20 or more employees, and this was done with the support of the National Association of Furniture Manufacturers and Exporters of Spain (ANIEME) and the International Furniture Fair of Valencia (FIM) which provided a directory of 500 companies representing just over 38% of the total population object of the study (1300). The questionnaire was sent by post to all 500 companies and 334 questionnaires were returned, 12 questionnaires were eliminated because they did not meet the required conditions and this left a total of 322 valid questionnaires for a response rate of 53%.

As a preliminary step to analysing the research results, the measurements were checked for reliability and validity. The variables used are defined by unidimensional scales and all the items are on a 5 point Likert scale ranging from “*strongly disagree*” to “*strongly agree*”. The abilities were divided in: social, decision making, problem solving and time management. The social abilities was measured on a 6 item scale adapted from Waldman *et al.* (2001) and Myers *et al.* (2004); the decision making abilities was measured on a 6 item scale adapted from Mintzberg and Westley (2001) and Myers *et al.* (2004); the problem solving abilities was measured on a 4 item scale adapted from Beyer *et al.* (1997), Wieringa and Van Bruggen (1997), Ireland *et al.* (2001) and Myers *et al.* (2004); and the time ma-

nagement abilities was measured on a 4 item scale adapted from Carroll and Gillen (1987), Wieringa and Van Bruggen (1997), Barry *et al.* (1997) and Myers *et al.* (2004). The performance was measured on a 3 item scale adapted from Daugherty *et al.* (2000), Ireland *et al.* (2001), Zimmerman (2001) and Myers *et al.* (2004); the worth was measures on a 5 item scale adapted from McDaniel *et al.* (1988), Schmidt *et al.* (1988) and Myers *et al.* (2004).

Also, the experience was measured the number of years that they were reported only scoring and it was adapted from McDaniel *et al.* (1988), Schmidt *et al.* (1988) and Myers *et al.* (2004). The formation was measured taken, of among a possible group of answers, and it was adapted from LaLonde and Pohlen (2000), Ginter and LaLonde (2003) and Myers *et al.* (2004). Finally, the competitiveness scale, measure through three variables: financial performance, cost reduction and technology, was taken from Buckley *et al.* (1988) with 3 items each one of them and constituted by a 5 point Likert scale ranging.

Reliability and Validity

Measurement scale reliability and validity were evaluated by Confirmatory Factor Analysis (CFA) using the maximum likelihood method in EQS 6.1 (Bentler, 2005; Brown, 2006; Byrne, 2006). Likewise, reliability was evaluated from Cronbach's α coefficients and the composed reliability index (Bagozzi & Yi, 1988). Other estimation methods were used when normality was assumed, following recommendations by Chou, Bentler and Satorra (1991) and Hu, Bentler and Kano (1992) on statistical correction of estimation models. The results suggest that our final measurement model provides a good fit ($S-B X^2 = 126.2715$; $df = 59$; $p = 0.000$; $NFI = 0.961$; $NNFI = 0.971$; $CFI = 0.978$; and $RMSEA = 0.060$). Table 1 shows these results and the model components.

Evidence of convergent validity can be found in the CFA results which show that all related factor items are significant ($p < 0.001$), all standardised factor loads are above 0.60 (Bagozzi & Yi, 1988) and the average standardised factor loads for each factor easily exceed 0.70. Discriminant validity is measured in two ways as shown in Table 2. First for a confidence interval of 95%, none of the individual elements of the latent factors in the correlation matrix contains the value 1.0 (Anderson & Gerbing, 1988). Second, the variance extracted between the pair of constructs is greater than the corresponding Variance Extracted Index (Fornell & Larcker, 1981). On the basis of these criteria, we can conclude

Table 1
Internal consistency and convergent validity

Variable	Indicator	Factor loading	Robust t-Value	Loading average	Cronbach's α	Composite reliability	AVE
Abilities	SOS1	0.931***	1.000 ^a	0.883	0.911	0.963	0.783
	DMS2	0.945***	35.031				
	PSS3	0.789***	20.471				
	TMS4	0.867***	26.463				
Performance	PE1	0.689***	1.000 ^a	0.756	0.741	0.801	0.574
	PE2	0.796***	11.073				
	PE3	0.784***	12.174				
Worth	WO1	0.691***	1.000 ^a	0.761	0.743	0.805	0.579
	WO2	0.790***	12.809				
	WO5	0.799***	12.991				
Competitiveness	CRF1	0.841***	1.000 ^a	0.803	0.842	0.847	0.648
	CRC2	0.859***	18.166				
	CTE3	0.708***	13.995				
$S-B \chi^2$ (df = 59) = 126.2715; p < 0.000; NFI = 0.961; NNFI = 0.971; CFI = 0.978; RMSEA = 0.060							
^a = Value parameters in the identification process *** = p < 0.001							

that the different measurements show sufficient reliability, convergent and discriminant validity.

Table 2
Discriminant validity of the theoretical construct measures

Variable	1	2	3	4
1. Abilities	0.783	0.068	0.084	0.143
2. Performance	0.210 , 0.310	0.574	0.075	0.12
3. Worth	0.230 , 0.350	0.210 , 0.338	0.579	0.138
4. Competitiveness	0.320 , 0.436	0.273 , 0.421	0.300 , 0.444	0.648

Diagonal represent the average variance extracted, while above the diagonal the shared variance (squared correlations) are represented. Below the diagonal the 95% confidence interval for the estimated factors correlations is provided.

Results

The statistical results for the research hypotheses were obtained using structural equation modelling using the same variables to check the model structure and obtain the results which would allow us to verify the hypotheses. The results are shown in Table 3.

Table 3
Structural model results

Hypothesis	Path	Standardized path coefficients	Robust t-Value	Robust FIT
H1: The higher level of experience, higher performance level	Experience → Performance	0.623***	9.038	$S-BY^2_{(R2)} = 161.9186$
H2: The higher level of abilities, higher performance level	Abilities → Performance	0.793***	10.038	$p = 0.000$
H3: The higher level of education, higher performance level	Education → Performance	0.654***	9.381	NFI = 0.951
H4: The higher level of performance, higher worth level	Performance → Worth	0.826***	12.103	NNFI = 0.968 CFI = 0.975 RMSEA = 0.055
H5: The higher level of worth, higher competitiveness level	Worth → Competitiveness	0.797***	11.488	
*** = $p < 0.001$				

The results shown in Table 3 for the first hypothesis H_1 $\beta = 0.623$, $p < 0.001$, show that experience has significant effects on performance. The results for H_2 $\beta = 0.793$, $p < 0.001$, show that abilities has significant effects on performance. The results for H_3 $\beta = 0.654$, $p < 0.001$, show that education has significant effects on performance. The results for H_4 $\beta = 0.826$, $p < 0.001$, show that performance has significant effects on worth. Finally, the results for H_5 $\beta = 0.797$, $p < 0.001$, show that worth has a positive impact on business competitiveness.

Discussion

In the recent years in the specialized magazines in the logistics area begins to appear more and more papers of the business human capital. In various of the studies related with the human capital it is considered that the experience, formation and the abilities of the logistics managers' have a strong influence in the

performance and the worth of the employees. The results obtained in this paper provide some interesting evidences in this respect. So much the experience, formation and the abilities levels of the managers they are directly related with the manager's performance. In other words, these three factors seem to be good predictors of the manager's performance. Also, the manager's performance is directly related with the worth and it is a good predictor of this.

Obviously, the obtained results indicate that the experience, the formation and the abilities of the managers are important factors that allow measuring the level of the managers' performance. In this sense, the results obtained in this paper can be interpreted as essential requirements to measure the logistics manager's level of the organizations performance. Also, the experience, the formation and the abilities of the managers represent a substantial difference, since the qualities of the managers are highly valued in the labor market. Therefore, the managers abilities can be increased if the reef is overcome that traditionally has been considered as a deficiency, that is to say, an education the sufficiently formal thing and/or a labor training accompanied by a vast experience allows to increase the managers abilities significantly. In this sense, the acquired abilities provide to the organizations, employees with a high-level of knowledge that they allow to respond from an effective and efficient way to the different labor situations that can be presented. In and of itself, the experience and the formation are necessary, particularly for the logistics managers of half level.

Regarding the competitiveness, the actually literature presents diverse papers in which a positive relationship exists between the worth and the business competitiveness, since it corresponds the logistics managers the design and handling of competitive advantages that take to the organization to obtain a privilege position in a market more and more globalized. In this sense, the results obtained in this paper demonstrate that the managers' worth is a good indicator to measure the business competitiveness level. Because a good management logistics systems will go accompanied by some good results of the business performance. Also, and we mention previously, the experience, the abilities and the formation are important indicators to measure the manager's performance, and this is a good indicator to measure the manager's worth and this, finally, is an excellent indicator to measure the business competitiveness level.

Limitations and Future Studies

The use of a questionnaire sent by ordinary mail for the data collecting, it can probably introduce some problems related with the biases of the ordinary methods. Another limitation is the information obtaining, since only a part of the information of the logistics managers abilities has been extracted. Given the interest that one has to continue with this thematic, is important to point out that most of the companies of the sample consider the required information as highly confidential and private, reason why they obtained data cannot reflect the real manager's performance. In spite of it, other elements of the real performance measuring of the business competitiveness level, for example the obtained results, they can be desirable to increase the validity of the results in future studies. Also, several measures were operationalized using a scale of three or four items, reason why in future studies they will be focused in the development of more understanding measures increasing the number of items.

The surveys were directed to the logistics managers, reason why the results can differ when a different population is used. It is necessary to reply and to extend the investigation to obtain a better determination of the utilized scale. However, the obtained results provide important knowledge that they can have strong impacts in the practice of the logistics managers and in the business competitiveness levels. Also, is it important to go beyond the technical results and to discuss: What goods would they be had not with the use of traditional formation and more specific types of the logistics managers' experiences? How results would be obtained if a more sophisticated model is applied for the evaluation of the efforts of the logistics managers? What specific activities of the logistics management is the one that more impacts in the business competitiveness levels?

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