

## ORAL COMMUNICATION CAPABILITIES OF GOVERNMENTAL PURCHASERS IN THE USA

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**ABSTRACT.** The main purpose of this paper is the evaluation of previous German and Spanish research conducted related to oral communication capability in a different cultural surrounding. In order to test the validity of the European findings, a new sample was drawn using membership data of the U.S. based National Institute of Governmental Purchasing. The results of this paper corroborate that oral communication capability is a construct consisting of three dimensions. The model obtained in Europe for managers from private sector purchasers is also applicable in the U.S. for public purchasers. Furthermore, European results proposed four distinct types of communicators, while in the U.S. two additional groups of purchasers were found. Nevertheless, there is limited evidence for demographic or cultural influences on the oral communication capabilities of purchasers.

### INTRODUCTION

Giunipero and Percy (2000) identified inter-personal communication as the most important skill required by purchasers to

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perform efficiently. Handfield and Nichols (2004) emphasized that purchasers should be effective communicators, both within their organization and with their suppliers. Large (2005a, 2005b), basing on structural equation modeling, found evidence for a strong impact of the oral communication capability of purchasers on their supplier management performance.

However, despite the important impact of the oral communication capability on the supplier management performance of purchasers, most of the existing suggestions for scales to measure this capability (Davenport Sypher & Sypher, 1983; McCroskey, Beatty, Kearney & Plax (1985), Rubin (1985) were designed to examine the capabilities of pupils and students. For example, Rubin (1985) developed a 19-item communication competence self-report (CCSR) to calculate one single measurement of students' communication capability. Penley, Alexander, Jernigan, and Henwood (1991) studied the relationship between managerial performance and communication competency (oral and written). They used a part of Rubin's CCSR to measure managers' oral communication abilities. Two dimensions consisting of four items each were obtained. The first factor dealt with the ability to communicate accurately (accurate communication). The second factor was composed of items representing the ability to articulate (articulate communication). Large and Giménez (2006) studied the oral communication capability construct and developed a measurement model based on data from German and Spanish purchasers. The results of the exploratory analyses led to the conclusion that there is no unidimensionality of the oral communication capability construct. Instead, three dimensions were proven more appropriate for this construct: the ability to pass on information, the ability to persuade in speech situations and the ability to listen and understand. A second-order and confirmatory factor model gave evidence for the appropriateness of the three-factor structure in Germany and Spain. Large and Giménez (2006) also developed an instrument to measure the purchasing managers' oral communication capabilities: the Oral Communication Capability Self-test (OCCS). They also provided a typology of purchasers in Germany and Spain.

Further analysis revealed that this study had three main limitations. First, the multi-group confirmatory factor analysis doubted the invariance of the measurement in Spain and Germany. Although the test of invariance confirmed the three-factor structure for both

countries, cultural influences on the measurement of oral communication capability could not be ruled out. Further research in other countries was necessary to test the general validity of the model. Second, almost all the respondents of the European study were purchasers working in the private sector. The scope of the research needed to be enlarged to include public purchasing. Finally, no demographic data was available to evaluate the influence of age, job experience and education on the three dimensions of the oral communication capability.

Regarding this latter aspect (demographic data), previous research on communication behavior presented contradictory results and delivered no clear understanding of the predictors of the communication capability. Rice (1992) found a wide range of influences on communication behavior. Specifically, he identified individual characteristics of a communicator, such as experience, attitude and preferences. Large (2005a, b) found evidence for the strong impact of purchasers' attitudes on their communication behavior. Tushman and Scanlan (1981) showed the influence of working experience and individual level of hierarchy on individual communication behavior. Penley, Alexander, Jernigan, and Henwood (1991) identified differences between male and female respondents concerning their communication capabilities. In contrast, Rodwell, Kienzle and Shadur (1998) found no evidence of an influence of demographic factors on communication behavior.

In order to overcome the limitations of previous research (Large and Giménez, 2006) and identify potential predictors of the oral communication capability, a new sample was drawn using membership data of the U.S. based National Institute of Governmental Purchasing. The objective of this research was to answer the following research questions:

- Is the model identified by Large and Giménez (2006) also appropriate for the U.S. and for public purchasing?
- Is the communicator typology in the U.S. different from that in Europe?
- How strong are the influences of age and education on the oral communication capabilities of purchasers?

- What role does “job experience outside the public purchasing area” play in the oral communication capability of governmental purchasers?

The result of this study is both informative and insightful to researchers and managers in the purchasing area. Researchers are provided with an instrument (developed using samples from different countries and considering both public and private purchasers) proven to measure the oral communication capability with high general validity. Managers are also provided with an instrument to consider oral communication competencies in the selection of staff and in human resource development.

## METHODS

### **Samples and Data Collection**

In this study, the questionnaire developed by Large and Giménez (2006), which was based on Rubin's (1985) communication competence self-report, was employed. The questionnaire included 19 items representative of skills associated with communication competency (see the Appendix).

On July 13, 2005, an e-mail invitation with a link to the web survey was sent to the members of the National Institute of Governmental Purchasing Inc, a not-for-profit educational and technical organization of public purchasing agencies in the U.S. and Canada. For the study, 3,412 members were invited to participate. Of the 3412 invitees, 347 were undeliverable and 97 recipients responded that their titles were not in the “management” field (not in the target group). One month later, 560 responses were available, representing a response rate of 18.9%. After eliminating 44 responses due to missing values concerning the communication capability items and 55 responses that were not completed by purchasing managers, 461 responses remained for further analysis. Although the response rate was reasonably high, a non-response bias test was conducted to examine differences in early and late returns (Armstrong and Overton, 1977). According to the results of this test, non-response bias is unlikely to be an issue in interpreting the results of this study.

## Research Methods

First, descriptive analysis was conducted to evaluate the sample. The results of the analysis were then compared to the European results. In order to prove that the 3-factor model developed by Large and Giménez (2006) was appropriate for the U.S. public purchasing sample, exploratory factor analysis using the principal component extraction method was conducted. In this factor analysis, only the 9 items of the Large and Giménez (2006) model were considered. Following the exploratory factor analysis, confirmatory factor analysis (CFA) was used to verify the structure of the measurement model. The parameter estimation was based on the maximum likelihood procedure. Finally, the dimensions of oral communication capability were used to find a typology of purchasers. A hierarchical cluster analysis was performed using the Ward method and the squared Euclidean distance to find the different types of communicators.

## RESULTS

### Descriptive Statistics

In total, 461 responses were available for statistical analysis. The majority of the instruments (53%) were completed by female purchasers, and the average age of respondents was 50.6 years. Most of the survey participants had several years of experience in the public sector (the mean years of experience in the public sector was 20.1) and 38.6% held Bachelor degrees.

In the U.S., the sample was drawn from the membership of the National Institute of Governmental Purchasing. The European sample consisted of purchasers from a broad range of industries. Given the dissimilarities of the two populations, it was important to evaluate possible differences between public and non-public purchasers. Interestingly, a majority of the 461 U.S. respondents (83.4%) possessed job experience outside the public sector (averaging 11.2 years). ANOVA was conducted to compare the oral communication capabilities of public purchasers with job experience outside the public service sector with that of purchasers having exclusive public sector experience. The oral communication capability of these respondents was measured using the items suggested by Large and Giménez (2006). Table 1 shows that there are no significant differences in oral communication capability between these two

groups. Consequently, it is unlikely that differences exist between the oral communication capability of public versus private purchasers.

**TABLE 1**  
**Means of the Communication Capability Items of Public Purchasers**  
**With Job Experience Outside the Public Service Sector (N = 385) and**  
**Purchasers Without Such Experience (N = 76)**

	Experience outside the public sector			
	Item No.	Yes	No	Significance
Answer questions	OCAPA02	3.92	4.04	0.240
Summarize facts	OCAPA03	4.19	3.34	0.090
Describe another's viewpoint	OCAPA10	3.83	3.80	0.705
Recognize misunderstanding	OCAPA13	3.81	3.75	0.597
Articulate clearly	OCAPA06	3.97	4.04	0.529
Speak persuasively	OCAPA07	3.76	3.91	0.167
Defend a point of view	OCAPA09	3.78	3.84	0.552
Understand suggestions	OCAPA16	3.83	3.91	0.316
Distinguish fact from opinion	OCAPA17	3.91	3.80	0.183

Table 2 shows the means of the communication capabilities in the U.S. In addition, the table presents the values derived from the data collected in Spain and Germany (Large & Giménez, 2006). ANOVA was conducted to identify differences between the U.S. and the European values. The pairs of means show almost the same values, but due to the large samples, even small differences are statistically significant. Analysis indicates that it is possible that there are country specific differences concerning oral communication capability.

#### **Oral Communication Dimensions in the U.S.**

Large and Giménez (2006) found evidence of a three-factor structure of oral communication capability in Germany and Spain. The ability to pass on information, the ability to persuade in speech situations, and the ability to listen and understand were identified as the three dimensions of oral communication capability. Exploratory factor analysis using the principal component extraction method was conducted to verify these results in the U.S.

**TABLE 2**  
**Means of the Communication Capability Items in Europe (N=383) and the U.S. (N=461)**

	Item No.	Europe	USA	Significance
Answer questions	OCAPA02	3.87	3.94	0.218
Summarize facts	OCAPA03	4.16	4.22	0.254
Describe another's viewpoint	OCAPA10	3.72	3.83	0.050
Recognize misunderstanding	OCAPA13	3.84	3.80	0.491
Articulate clearly	OCAPA06	3.71	3.98	0.000
Speak persuasively	OCAPA07	3.50	3.78	0.000
Defend a point of view	OCAPA09	3.91	3.79	0.032
Understand suggestions	OCAPA16	3.83	3.84	0.750
Distinguish fact from opinion	OCAPA17	3.89	3.89	0.929

Table 3 shows the rotated component matrix of the exploratory factor analysis based on the U.S. data. The extraction explains 61.1% of the variance. The Kaiser-Meyer-Olkin measure of sampling adequacy shows a value of 0.801, which exceeds the 0.80 level

**TABLE 3**  
**Loadings of the 3-Factor Measurement Model: U.S. and European Respondents**

	USA			Europe		
	Factor 1	Factor 2	Factor 3	Factor 1	Factor 2	Factor 3
Answer questions		0.73		0.75		
Summarize facts		0.62		0.74		
Describe another's viewpoint		0.61		0.71		
Recognize misunderstanding		0.64		0.75		
Articulate clearly	0.87				0.86	
Speak persuasively	0.86				0.84	
Defend a point of view	0.76				0.67	
Understand suggestions			0.73			0.79
Distinguish fact from opinion			0.83			0.83

Notes: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization, Absolute Values Less Than 0.4 Suppressed.

advocated in the literature. The Bartlett's test of sphericity ( $\chi^2=991.93$ ;  $p=0.000$ ) also suggests sufficient quality of the factor analysis.

Likewise, Table 4 gives the loadings of the solution found for the oral communication capabilities of European purchasers (Large & Giménez, 2006). The U.S. results suggest a three-factor structure as in the case of Germany and Spain, with the loadings showing similar values. Component 1 in the U.S. corresponds to component 2 in Europe, and vice versa. Therefore, based on exploratory factor analysis the existence of the three dimensions of oral communication capability - ability to pass on information, ability to persuade and ability to listen and understand - is also proven of U.S. purchasers.

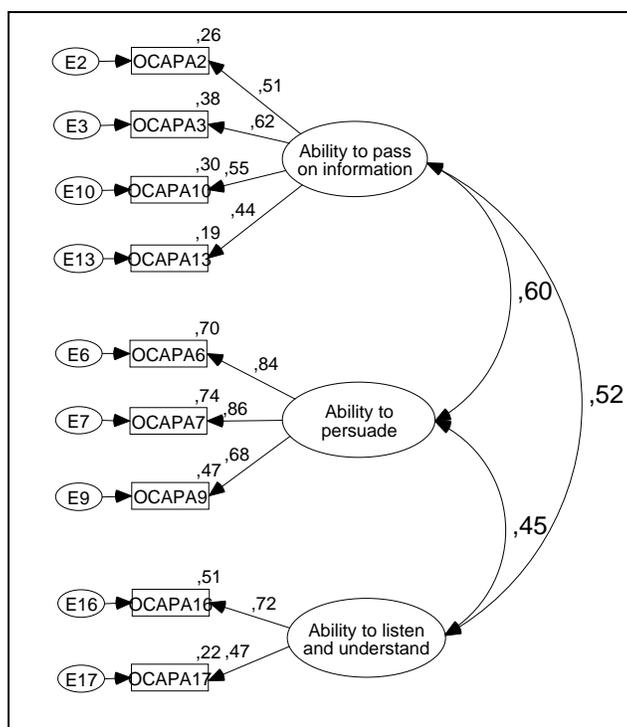
After the exploratory factor analysis, confirmatory factor analysis (CFA) was used to verify the structure of the measurement model. The parameter estimation was based on the maximum likelihood procedure. The goodness-of-fit statistics of the estimated model are shown in Table 4. All of these figures indicate a good model fit.

**TABLE 4**  
**Fit Measures of the Second Order CFA Model of Oral Communication Capability**

Fit Measure	Total (n=844)	Europe (n = 383)	USA (n=461)
Discrepancy	42.547	31.250	39.927
Degrees of freedom	24	24	24
P	0.011	0.147	0.022
Number of parameters	21	21	21
Discrepancy / df	1.773	1.302	1.664
RMR	0.015	0.022	0.018
GFI	0.989	0.983	0.981
Adjusted GFI	0.979	0.967	0.965
Normed fit index	0.975	0.961	0.960
Relative fit index	0.963	0.941	0.940
Incremental fit index	0.989	0.991	0.984
Tucker-Lewis index	0.983	0.986	0.975
Comparative fit index	0.989	0.990	0.983
RMSEA	0.030	0.028	0.038
RMSEA lower bound	0.014	0.000	0.015
RMSEA upper bound	0.045	0.053	0.058
P for test of close fit	0.989	0.921	0.822

The reliability of each item, the construct reliability (composite reliability) and average variance extracted for each factor were analyzed. For this analysis, a first order confirmatory factor analysis was conducted (see Figure 1). The reliability of each item can be analyzed through its squared multiple correlation, which is provided by AMOS. The values are shown on the top right corner of each rectangle in Figure 1. The composite reliability and the average variance extracted were calculated according to the definitions proposed by Bagozzi and Yi (1988). The indicator reliabilities of the items of factor 1 are small (see Table 5). The average variance extracted is also smaller than in Europe (0.410). On the other hand, the composite reliability of factor 1 meets the 0.6 level advocated in the literature. In comparison with the European results, these examinations demonstrate a lower level of reliability and validity.

**FIGURE 1**  
**First Order CFA Model of Oral Communication Capability:**  
**U.S. Respondents (N=461)**



**TABLE 5**  
**Evaluation of the Measurement Model Based on First Order CFA: U.S.**  
**Respondents (N=461)**

Item No.	Item	Item reliability	Composite reliability	Average variance extracted
OCAPA02	Answer questions	0.26	0.60	0.275
OCAPA03	Summarize facts	0.38		
OCAPA10	Describe another's viewpoint	0.30		
OCAPA13	Recognize misunderstanding	0.19		
OCAPA06	Articulate clearly	0.70	0.84	0.646
OCAPA07	Speak persuasively	0.74		
OCAPA09	Defend a point of view	0.47		
OCAPA16	Understand suggestions	0.52	0.53	0.376
OCAPA17	Distinguish fact from opinion	0.22		

In most situations the Fornell-Larcker criterion is calculated to examine the discriminant validity. Fornell and Larcker (1981) recommended this stringent test, which demonstrates discriminant validity by showing that the average variance extracted exceeds the squared correlation between all pairs of factors. The values of the three correlations are given in Figure 1 beside the double-headed arrows. In contrast to Europe's, the U.S.'s test results give no evidence for discriminant validity of the model. Therefore, a less stringent test was conducted by comparing the correlations between the endogenous variables (Table 6). All correlations between the items of one factor distinctly exceed the correlations between the items of different factors. According to this criterion, there is a sufficient degree of discriminant validity.

The regression weights resulting from the maximum likelihood estimation (ML-estimation) of the second order CFA model of oral communication capability are shown in Table 7. All of them are significant. The standardized weights are reasonably high. Especially, the influence of the oral communication capability (O\_CAPA) on the three dimensions is strong. The impact of the oral communication capability on the ability to pass on information is stronger in the U.S. than in Europe (Figure 2A and Figure 2B).

**TABLE 6**  
**Correlations Matrix: U.S. Respondents (N=461)**

	Answer questions	Summarize facts	Describe another's viewpoint	Recognize misunderstanding	Articulate clearly	Speak persuasively	Defend a point of view	Understand suggestions	Distinguish fact from opinion
Answer questions	1	0.418	0.391	0.460	0.212	0.206	0.125	0.177	0.088
Summarize facts	0.418	1	0.387	0.402	0.151	0.167	0.071	0.122	0.153
Describe another's viewpoint	0.391	0.387	1	0.404	0.247	0.245	0.106	0.125	0.133
Recognize misunderstanding	0.460	0.402	0.404	1	0.222	0.206	0.092	0.187	0.191
Articulate clearly	0.212	0.151	0.247	0.222	1	0.655	0.432	0.242	0.180
Speak persuasively	0.206	0.167	0.245	0.206	0.655	1	0.407	0.242	0.220
Defend a point of view	0.125	0.071	0.106	0.092	0.432	0.407	1	0.291	0.261
Understand suggestions	0.177	0.122	0.125	0.187	0.242	0.242	0.291	1	0.413
Distinguish fact from opinion	0.088	0.153	0.133	0.191	0.180	0.220	0.261	0.413	1

The values of the squared multiple correlations (Jöreskog & Sörbom, 1982) are shown on the top right corner of each endogenous variable (Figure 2A and Figure 2B). The squared multiple correlations determine the share of variance explained by the predictors of the endogenous variable. For example, in the U.S. 52% of the variance of purchasers' ability to persuade is explained/represented by the oral communication capability. The values of the three dimensions exceed the 30% level. The results of this first comparison suggest that the given factor structure is appropriate for both Europe and the U.S.

Additionally, the invariance of the measurement in both Europe and in the U.S. was assessed by conducting a multi-group confirmatory factor analysis (Bagozzi & Yi, 1988; Byrne, 2001; Durvasula, Andrews, Lysonski, & Netemeyer, 1993; Mullen, 1995; Singh, 1995). To assess measurement equivalence multi-group models were estimated in which each country sample served as a group. Multi-group analysis with AMOS is based on the comparison of the unconstrained model in which the estimated parameters are

**TABLE 7**  
**Regression Weights the Second Order CFA Model: U.S. Respondents**  
**(N=461)**

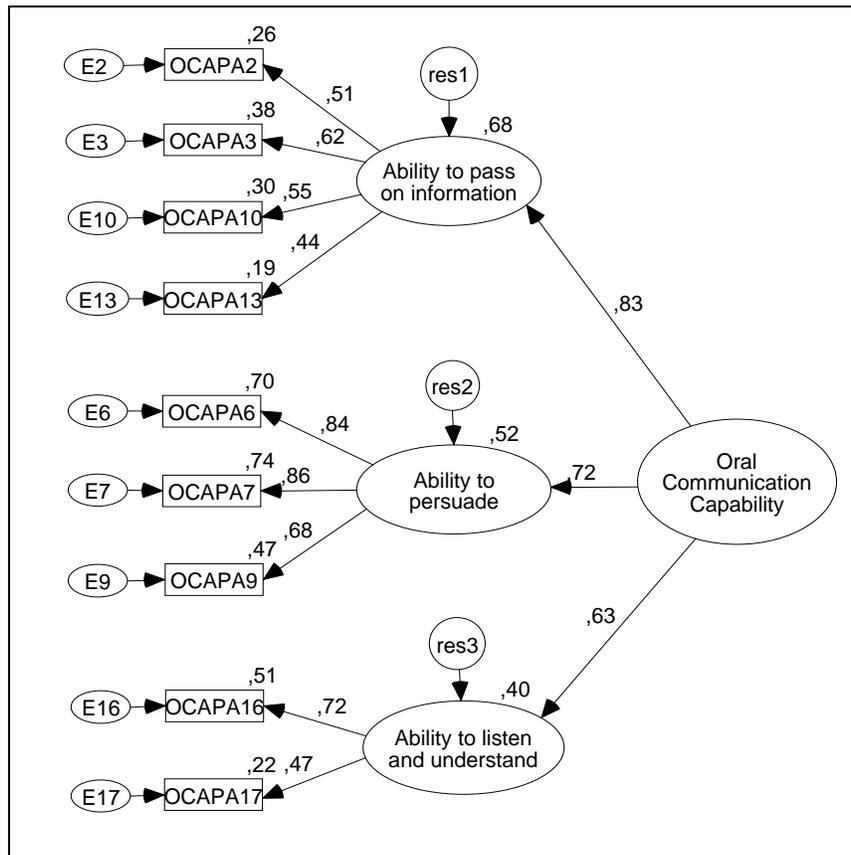
		Estimate	Standard error	Critical ratio	Significance	Standardized estimate
FACT1	← O_CAPA	0.339	0.045	7.498	0.000	0.827
FACT2	← O_CAPA	0.517	0.053	9.758	0.000	0.721
FACT3	← O_CAPA	0.293	0.037	7.902	0.000	0.629
OCAPA2	← FACT1	1.000				0.515
OCAPA3	← FACT1	1.063	0.139	7.638	0.000	0.618
OCAPA10	← FACT1	0.878	0.121	7.279	0.000	0.549
OCAPA13	← FACT1	0.886	0.139	6.377	0.000	0.437
OCAPA6	← FACT2	1.000				0.835
OCAPA7	← FACT2	1.030	0.057	17.983	0.000	0.860
OCAPA9	← FACT2	0.733	0.049	14.974	0.000	0.683
OCAPA16	← FACT3	1.000				0.717
OCAPA17	← FACT3	0.629	0.126	4.991	0.000	0.472

allowed to vary across the two samples and a constrained model. Equality constraints are imposed on particular parameters such as the factor loadings of the measurement model. In testing for invariance, the  $\chi^2$  value of the unconstrained model is compared with that of the constraint model. If the  $\chi^2$  difference between the two models is not significant, the invariance of the measures and the model's relationships across countries can be assumed. To assess invariance and to locate the sources of non-invariance, three different constraint models were used:

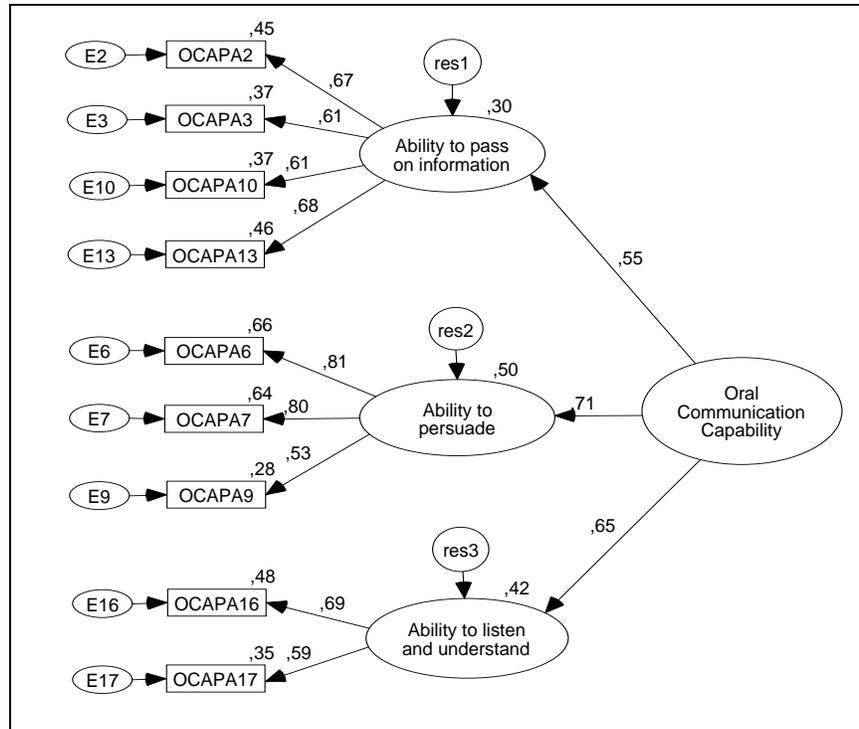
- Model 1: Only the six free factor loadings of the measurement model were labeled to be equal in both samples (U.S. and Europe).
- Model 2: Only the three regression weights of the second order model were declared invariant across the samples.
- Model 3: Both the regression weights and the factor loadings were held equal across the two groups.

The results of the four estimations are displayed in Table 8. The  $\Delta\chi^2$  values of the three constraint models are small and not significant. Therefore, the model is invariant across the two samples. This stringent test provides evidence of the universal validity of this second order model of oral communication capability.

**FIGURE 2 A**  
**Second Order Oral Communication Capability Model: Standardized**  
**Regression Weights and Squared Multiple Correlations: U.S.**  
**Respondents (N=461); USA:  $\chi^2 = 39.93$**



**FIGURE 2 B**  
**Second Order Oral Communication Capability Model: Standardized**  
**Regression Weights and Squared Multiple Correlations: European**  
**Respondents (N=393); Europe:  $\chi^2 = 31.25$**



### Typology of Communicators

The European results suggested four distinct types of communicators in purchasing: excellent communicators, poor communicators, empathetic listeners and non-persuasive speakers (Large & Giménez, 2006). To prove this typology, cluster analysis using the U.S. data was conducted. The analysis was based on the three factors identified in the previous section: the ability to pass on information, the ability to persuade and the ability to listen and understand. The three factor scores of each respondent were calculated using the regression method of the exploratory factor

**TABLE 8**  
**Test of Invariance: U.S. Respondents (N=461) and European Respondents (N=393)**

	$\chi^2$	df	$\Delta\chi^2$	$\Delta$ df	p	Sig.
Unconstrained model	71.177	48				
Constrained model 1	77.728	54	6.551	6	0.364	n.s.
Constrained model 2	71.760	51	0.583	3	0.900	n.s.
Constrained model 3	79.043	57	7.866	9	0.548	n.s.

Notes:

Unconstraint model:  $\chi^2/df = 1.483$ , RMSEA = 0.024, GFI = 0.982, CFI = 0.987.

Model 1:  $\chi^2/df = 1.439$ , RMSEA = 0.023, GFI = 0.980, CFI = 0.986.

Model 2:  $\chi^2/df = 1.407$ , RMSEA = 0.022, GFI = 0.982, CFI = 0.988.

Model 3:  $\chi^2/df = 1.387$ , RMSEA = 0.021, GFI = 0.980, CFI = 0.987.

analysis. In order to meet the three-factor structure of the CFA model without cross-loading, the factor scores were calculated for each factor separately.

The hierarchical cluster analysis was performed using the Ward method and the squared Euclidean distance. The cluster technique required the selection of an appropriate number of clusters. In contrast to the European results (Large & Giménez, 2006), the variances within the groups suggested a 6-cluster solution.

The groups' means are the basis for the interpretation of each cluster. SPSS calculates the factor scores as standardized values with a mean of 0 and a variance of 1. Therefore, positive means indicate that a variable in the group is over-represented in comparison with the total sample. The variance within a group should be lower than 1 to ensure homogeneity within the group. Table 9 shows the means and variances of the six groups. All the variances are smaller than 1, suggesting that there is appropriate homogeneity within the group.

The third cluster consists of respondents with excellent communication capabilities. The cluster mean of each factor exceeds the corresponding mean of the total sample. In contrast, nearly all respondents who fall into cluster 6 show below average abilities for all oral communication capability dimensions, as proven by the

**TABLE 9**  
**Means and Variances of the Six Identified Clusters: U.S. Respondents**  
**(N=461)**

6 Cluster		Ability to pass on information	Ability to persuade	Ability to listen and understand
One-way communicator (N = 60)	Mean	0.369	0.212	-1.543
	Variance	0.878	0.645	0.299
Empathetic listener (and persuasive speaker) (N = 106)	Mean	-1.079	0.672	0.380
	Variance	0.635	0.586	0.831
Excellent communicator (N = 74)	Mean	1.249	0.536	0.362
	Variance	0.294	0.445	0.292
Average communicator (N = 131)	Mean	0.022	0.026	-0.034
	Variance	0.109	0.199	0.289
Non persuasive speaker (and empathetic listener) (N = 35)	Mean	0.486	-1.212	1.324
	Variance	0.391	0.797	0.503
Poor communicator (N = 55)	Mean	-0.364	-1.538	-0.297
	Variance	0.555	0.400	0.830

consistently negative factor means. For classification purposes, the respondents in cluster 6 can be characterized as poor communicators.

Almost all of the purchasers of the second cluster have difficulties with their ability to pass on information. However, they possess abilities in listening and understanding. Likewise, the ability to persuade in speech communication plays a role in this cluster. Therefore, the members of cluster 2 can be described as empathetic listeners with speaking skills.

About 80% of the members of group 5 show above average abilities in passing on information. Likewise, their ability to listen and understand is above average. However, the dominant characteristic of this group is the below-average ability in persuasive speaking. Nobody in this group possess above average abilities in persuading. Therefore, the members of this group can be labeled as non-persuasive speakers.

These four types are close to the groups identified in Europe. On the other hand, two additional types were identified in the U.S.. Most of the respondents of the first group show above average abilities in passing on information and persuasive speaking. But all members of group 1 have difficulties listening and understanding. Therefore, the members of this cluster have been called one-way communicators. In the case of group 4, the cluster means are close to zero and the range is small. Therefore, this last type can be labeled as average communicators.

### Explanation of the Oral Communication Capability

In this paper, the gender, age, level of education and job experience of respondents were used to evaluate the influence of demographic data on the oral communication capabilities of purchasers. To analyze gender influence, one-way ANOVA was conducted. Table 10 shows the results. There is no evidence of gender influence on the ability to pass on information or the ability to listen and understand. Conversely, the perceptions of men and women concerning their own abilities to persuade in speech situations are different. The mean of the male sub-sample exceeds the value of the female sample.

**TABLE 10**  
**Influence of Gender on the Oral Communication Capabilities: U.S.**  
**Respondents (N=461)**

Gender		N	Mean	Significance
Ability to pass on information	female	244	0.055	0.191
	male	216	-0.067	
	total	460	-0.002	
Ability to persuade	female	244	-0.088	0.047
	male	216	0.098	
	total	460	-0.001	
Ability to listen and understand	female	244	-0.026	0.576
	male	216	0.026	
	total	460	-0.002	

Concerning the level of education, the respondents were divided into three categories: bachelor degree, below bachelor and above

bachelor. Table 11 shows the results of the ANOVA for these three groups. There is an impact of the level of education on the ability to persuade when giving a speech. Purchasers with a bachelor degree or higher possess better speaking capabilities than other buyers.

**TABLE 11**  
**Influence of Education on the Oral Communication Capabilities: U.S. Respondents (N=461)**

Oral Communication Capabilities	Academic degree	N	Mean	Significance
Ability to pass on information	below bachelor	150	0.012	0.771
	bachelor	178	-0.040	
	above bachelor	133	0.040	
	total	461	0.000	
Ability to persuade	below bachelor	150	-0.144	0.010
	bachelor	178	-0.034	
	above bachelor	133	0.209	
	total	461	0.000	
Ability to listen and understand	below bachelor	150	-0.069	0.588
	bachelor	178	0.033	
	above bachelor	133	0.034	
	total	461	0.000	

In order to assess the influence of age and job experience, the correlations between these variables and the three dimensions of the oral communication capability were calculated (see Table 12). There is no significant relationship between the age of a purchaser and his/her oral communication capability. Furthermore, the influence of job experience is low. There is a significant influence of the number of years a respondent has worked in the public service sector on the ability to persuade when speaking. Likewise, the duration of working in other industries has a significant effect on the ability to pass on information. However, these effects are very weak due to small correlation coefficients.

In conclusion, according to the results of this section, there is limited evidence for the hypothesis of demographic influences on the oral communication capabilities of public purchasers.

**TABLE 12**  
**Influence of Age and Job Experience on the Oral Communication Capabilities: U.S. Respondents (N=461)**

		Ability to pass on information	Ability to persuade	Ability to listen and understand
Age	Pearson	0.062	0.078	-0.081
	Sign. (2-way)	0.187	0.099	0.087
	N	453	453	453
Experience in the public sector	Pearson	0.056	0.132**	-0.041
	Sign. (2-way)	0.231	0.005	0.380
	N	456	456	456
Experience in other industries	Pearson	0.107*	-0.026	-0.046
	Sign. (2-way)	0.040	0.614	0.381
	N	370	370	370
Experience total	Pearson	0.130*	0.133*	-0.060
	Sign. (2-way)	0.013	0.011	0.253
	N	366	366	366

### DISCUSSION AND MANAGERIAL IMPLICATIONS

The results of this paper corroborate that there is no unidimensionality of the oral communication construct. Instead, three dimensions are more appropriate. These dimensions are: the ability to pass on information, the ability to persuade in speech situations and the ability to listen and understand. The model obtained in Europe for managers in private companies is applicable in the U.S. for public purchasers. There is limited evidence for the thesis of demographic influences on the oral communication capabilities of public purchasers.

This study has several managerial implications: Regarding the communication typology, we found four distinct types of communicators in Europe: excellent communicators, poor communicators, empathetic listeners and non-persuasive speakers (Large & Giménez, 2006). In the U.S., we found two additional groups of purchasers: one way-communicators and average communicators. These results point out that there is a considerable need for communication training and management development of many governmental purchasers in the U.S.

The 9-item measure of self-reported communication competence was used to create an Oral Communication Capability Self-test (OCCS). The general structure of the OCCS and the detailed calculation procedures are explained in Large and Giménez (2006). Based on the three samples, special benchmark values were calculated for each country. Table 13 shows the U.S. benchmarks for excellent, average and poor communicators. This instrument can be very helpful in human resource development. For example, the Oral Communication Capability Self-test has been used in Germany to measure the oral communication capabilities of the participants of seminars on interpersonal communication in purchasing. The OCCS and the communicator typology can help purchasers classify themselves and identify their strengths and weaknesses. Also in the selection of staff the OCCS can give a first impression of the communication competencies of a candidate. In this case, to reduce the risk of strategic answering, the applicants should process the OCCS rapidly.

Furthermore, the oral communication capability self-test (OCCS) may be also applicable to managers outside the purchasing and supply area. The items used in this study are general in nature and not restricted to procurement settings. Nevertheless, further research is necessary to evaluate the OCCS in other managerial surroundings.

**TABLE 13**  
**U.S. Benchmarks of the Oral Communication Capability Self-Test**

<b>Excellent communicators</b>	
Oral communication capability	4.5
Ability to pass on information	4.6
Ability to persuade	4.5
Ability to listen and understand	4.2
<b>Average of U.S. purchasers</b>	
Oral communication capability	3.9
Ability to pass on information	4.0
Ability to persuade	3.9
Ability to listen and understand	3.9
<b>Poor communicators</b>	
Oral communication capability	3.3
Ability to pass on information	3.6
Ability to persuade	2.7
Ability to listen and understand	3.5

### LIMITATIONS AND FURTHER RESEARCH

This study has a few limitations. First, the translation of the questionnaire may have introduced some bias. The model obtained in this paper is based on data gathered through an English language questionnaire, although the original model was developed using data collected through German and Spanish questionnaires. Using a two-step translation procedure, however, minimized this bias. After the first translation from English into German and Spanish, a third translator translated the Spanish questionnaire from Spanish into German. In the same manner, the two independent versions of the German questionnaire can be compared to validate the accuracy of the translations.

Second, the U.S. sample is drawn from a member list from the National Institute of Governmental Purchasing, whereas the two European samples represent a broad range of industries. Therefore, the U.S. sample was divided into two groups: public purchasers with job experience outside the public service sector and purchasers who had worked exclusively in the public sector. Although the comparison of these two groups shows no significant differences, this fact is not sufficient to rule out the possibility of differences between the capabilities of public and private purchasers.

Finally, the U.S. results show a lower level of reliability and validity in comparison with the European data. However, because all correlations between the items of one factor distinctly exceed the correlations between the items of different factors, there was a sufficient degree of discriminant validity.

In spite of these limitations, this study contributes to a better understanding of the nature of the oral communication capability of managers. Some lines of further research derived from these analyses are: the investigation of the impact of different communicators' typologies and different communication abilities on supplier management performance; the analysis of why in this study the "one-way communicator" group was found: Is it a group in close relation to public purchasing or is it exclusively for the U.S.? Future research should include supplier management performance measures, should be conducted among public and private purchasers and be based on data collected in different countries.

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**APPENDIX**  
**Skills Associated with Communication Competency**

Statement		Item	Item-No.	Rubin's No.
I find it difficult to express my satisfaction or dissatisfaction about the performance of other people.		Express feelings	OCAPA01	15
Often I have to answer a question several times before others seem satisfied with my answer.		Answer questions	OCAPA02	14
When I tell others about a fact, often my version leaves out some important items.		Summarize facts	OCAPA03	11
I always understand the assignments that are given orally to me.	R	Understand assignments	OCAPA04	10
I am able to give a balanced explanation of differing opinions.	R	Describe differences of opinion	OCAPA05	19
When I give a speech, I speak clearly and distinctly.	R	Articulate clearly	OCAPA06	3
When I give a speech, I speak persuasively.	R	Speak persuasively	OCAPA07	4
When speaking with others, often I have to ask a question several times, in several ways, to get the information I want.		Obtain information	OCAPA08	13
When giving a speech, I thoroughly express and fully defend my positions on issues.	R	Defend a point of view	OCAPA09	6
When I try to describe someone else's point of view, I have trouble getting it right.		Describe another's viewpoint	OCAPA10	18
When I speak with others, I mispronounce a lot of words.		Pronounce words correctly	OCAPA11	1
The words I use say one thing while my face and body language say something different.		Speak credible / facial expression	OCAPA12	2
Often I am unable to tell whether or not someone has understood what I have said.		Recognize mis-understanding	OCAPA13	7
When I have to introduce myself in a meeting, it is easy for me to describe my personality.	R	Introduce self	OCAPA14	12
When I speak with others, my ideas are clearly and concisely presented.	R	Present ideas clearly	OCAPA15	5
When other persons make suggestions on how I can improve, I always understand the suggestions.	R	Understand suggestions	OCAPA16	9
I know when I'm hearing a fact and when I'm hearing someone's personal opinion.	R	Distinguish fact from opinion	OCAPA17	8

**APPENDIX (Continued)**

Statement		Item	Item-No.	Rubin's No.
When I explain something to someone, it tends to be disorganized.		Explain organized	OCAPA18	16
When I give directions to another person, the directions are accurate.	R	Direct accurate	OCAPA19	17