



2528-9705

Örgütsel Davranış Araştırmaları Dergisi
Journal Of Organizational Behavior Research
Cilt / Vol.: 3, Sayı / Is.: S2, Yıl/Year: 2018, Kod/ID: 81S2283



EFFECTIVE FACTORS ON COMMUNICATION SKILLS IN GOVERNMENT ORGANIZATIONS

Mohammad FEYZ¹, Davood KIAKOJOURI^{*}, Behzad FARROKHSERESHT¹, Ghorbanali AGHA AHMADI²

¹ Department of government Management, Chalous Branch, Islamic Azad University, Chalous, Iran.

² Department of Accounting, Chalous Branch, Islamic Azad University, Chalous, Iran

***Corresponding Author**

E_mail: Davoodkia@iauc.ac.ir

ABSTRACT

The concept of communication skills includes the ability of the manager to effectively and efficiently transfer information to others. Communication skills, as an important factor in the success of managers, have a special importance and place in organizations. Therefore, having communication skills can help to create a positive relationship between themselves and others. Facilitate effective cooperation. Increase group affiliation and thus be effective in motivating employees. In this study, the combined method was used to study the effective factors on communication skills. In qualitative section, 15 samples of national sample managers were interviewed using snowball sampling method. After the theoretical saturation, the data collection was organized using MAXQDA software and coding technique in 7 dimensions. Subsequently, in the quantitative section, for calculating the formal validity, content validity (CVR and CVI), and construct validity, 500 questionnaires were distributed among 25 executives of Guilan province and 429 data distribution questionnaires were collected in terms of normality, test The results showed that society has a natural distribution. Then, the hypothesis test was performed using Pearson correlation and all the assumptions and the final model of the research were presented.

Keywords: communication skills; coding; Pearson; content validity; exploratory and confirmatory factor.

INTRODUCTION

Today, a fresh start has begun in management research that focuses on factors that limit the effectiveness of factors that increase positive work behaviors. One of these trends emphasizes the development of communication skills in work (Madin et al., 2015). Many organizational researchers acknowledge that effective communication with the physical and mental health of the staff is ultimately linked to organizational success. Therefore, the development of communication skills in today's complex world is of great importance because organizations can not develop without such competencies (Korn, 2013). Providing a communication system is one of the core tasks of the manager because they spend more than 70 percent of their time on communication. It is natural for managers to have effective communication with individuals and understand their motives for achieving organizational goals. Therefore, the establishment of a communication network is the first task of the manager. As Herbert Simon stated, the organization can not exist without communication (Hoi and Maslik, 2003).

However, the study of communication and communication skills in the management literature and organizational behavior is limited and our knowledge of these competencies and their learning style is limited. Hence, communication and communication skills in the organization are the areas in need of study and attention (Dokki, 2012). Communications and

Communication Skills In recent years, especially after the 1950s, in Western Moravia, the attention of the various scholarly practitioners including psychology, social psychology, and sociology has been addressed to management and computer science scientists. Today, each of the pioneers this discipline has a different view from the others that it seeks to look at communications in different ways (Tourism, 2004). In the psychology literature, there is a great deal of effort in defining communication skills. In the above definitions, almost all of them have expressed the transmission of an idea, a feeling, information or a message from one person to another as a communication process (Musazadeh, 2010) Communication skills express the behaviors that a person can communicate with others in such a way that they lead to positive responses and avoid negative responses (Ghobadi, 2008). McGuire and Priestley (1981) call communication skills to be the behaviors that constitute the basis of successful and face-to-face communication. Kelly (1912) states that communication skills are defined and learned behaviors that individuals perform in their interpersonal relationships to gain or maintain environmental enrichment (Firozbakht, 1998). Barton GI (1990) has three dimensions of communication skills, comprising three components: a) verbal skills, b) listening skills, and c) feedback skills. (Nazari et al., 2014). Islamic and Tajik (2010) state that good and effective communication means the exchange of thoughts and information in such a way as to create a sense of mutual understanding and mutual trust. Creating a good, effective and constructive relationship requires a healthy and free environment (Asadi Shoki, 2010).

Amit Kumar Singh (2013) reminded in an article on the role of interpersonal communication in organizational effectiveness, the importance of interpersonal communication in the organization, and concluded in his research: Interpersonal communication is unavoidable, irreversible interpersonal communication is the relation between Individual is complex (Kumar Singh, 2014, 39-36)). Zarin Hussein (2013), in an article entitled Effective Communication, brings successful organizational change, suggesting that change in communication roles is necessary to manage successful change (Hussein, 2013). Sari Ramamenti and Indian Martinez (2016) investigated the relationship between employee motivation and communication factors, such as non-verbal communication, in a qualitative research called organizational communication: motivation and communication at work. Their research showed that nonverbal communication, including body management, face communication, and eye communication have a positive and important role in shaping motivation in the staff. (Romantini & Martinez, 2016). John Smith et al. (2014) in a study in higher education, entitled The Effect of Communication Skills on attitude, happiness and job satisfaction of employees showed that attitude, happiness and job satisfaction are related to the level of managers' communication and the ability of employees to submit suggestions, comments and criticisms (Smith et al., 2014).

RESEARCH METHODOLOGY

The present study has been carried out in a mixed method in which two quantitative and qualitative approaches are placed together. The data collection tool was in the qualitative section of the deep and semi-structured interview, which was done by asking questions between 30 and 40 minutes. The statistical population of this research includes senior, middle and operational managers of government agencies that have at least five years of management experience and have one of the following characteristics: selected as national or manager at



the Shahid Rajaei Festival, or one of them have received government badges or, from the point of view of the managers of the oversight bodies, in particular the vice presidents or the performance evaluation units of the ministry, as effective managers or superior executives. The main indicators of these units for effective managers are the following factors: proper implementation of programs and communication policies, good reputation, Hassan Khalq, constructive interaction with other units, administrative discipline, and so on. In this study, referring to the database of managers who were selected as sample managers at the Shahid Rajaei Festival, as well as referring to the experts who, in terms of organizational status and extensive communication with executive agencies, were familiar with effective managers, and also by referring to the offices of the performance appraisal and the offices of the modernization and administrative transformation of executive agencies, which are responsible for assessing the performance of managers and implementing management development plans, were achieved with the desired examples. In addition, in each interview, participants presented one or two of the people who could have helped to foster this research. In this method of obtaining samples in the methodology literature, the so-called snowball method is called. It should be noted that the request for introduction of the next person was made at the end of the interview, and the participant could introduce the next person more carefully with respect to the study objectives and the type of questions. The sample size in this approach was determined during the work, and the sampling continued so that the data saturation was achieved, which means that the researcher concluded that the new data is a repeat of the previous data, and that other new conceptual information requiring a new code or extending existing codes and classes. In this research, from the eleventh interview, the researcher reached the saturated level of data, but interviews continued for up to 15 people to ensure adequate data collection.

In the quantitative part of the study, a descriptive survey was used and a questionnaire was used to collect data. The statistical population of the research is administrative staff of 25 governmental organizations in Gilan, numbering 9099 people. According to Morgan table, random sampling method should be distributed to 373 questionnaires. However, since the number of sample individuals that are extracted from the table or formula is at least a sample, and, on the other hand, the experience of conducting research in our country states that most of the questionnaires are not completed and not returned, and this leads to a decrease in the subjects and as a result of the reduction of internal validity, in order to prevent this error, 500 questionnaires were distributed among the statistical population which according to the number of returns of the questionnaire and non-analytical questionnaires, 429 questionnaires were used for collecting analysis.

RESEARCH FINDINGS

As previously explained, qualitative research was conducted through in-depth interviews in person that was eventually interviewed with 15 people. The interviews were conducted with questionnaires, with managers between 30 and 40 minutes. First, the framework of the interview, including interviewing, explaining the reason for the interview, and a general definition of the subject of the research, were then asked for research questions based on the design of the interviewee. The results of the identified primary codes for communication skills are shown in figure (1).



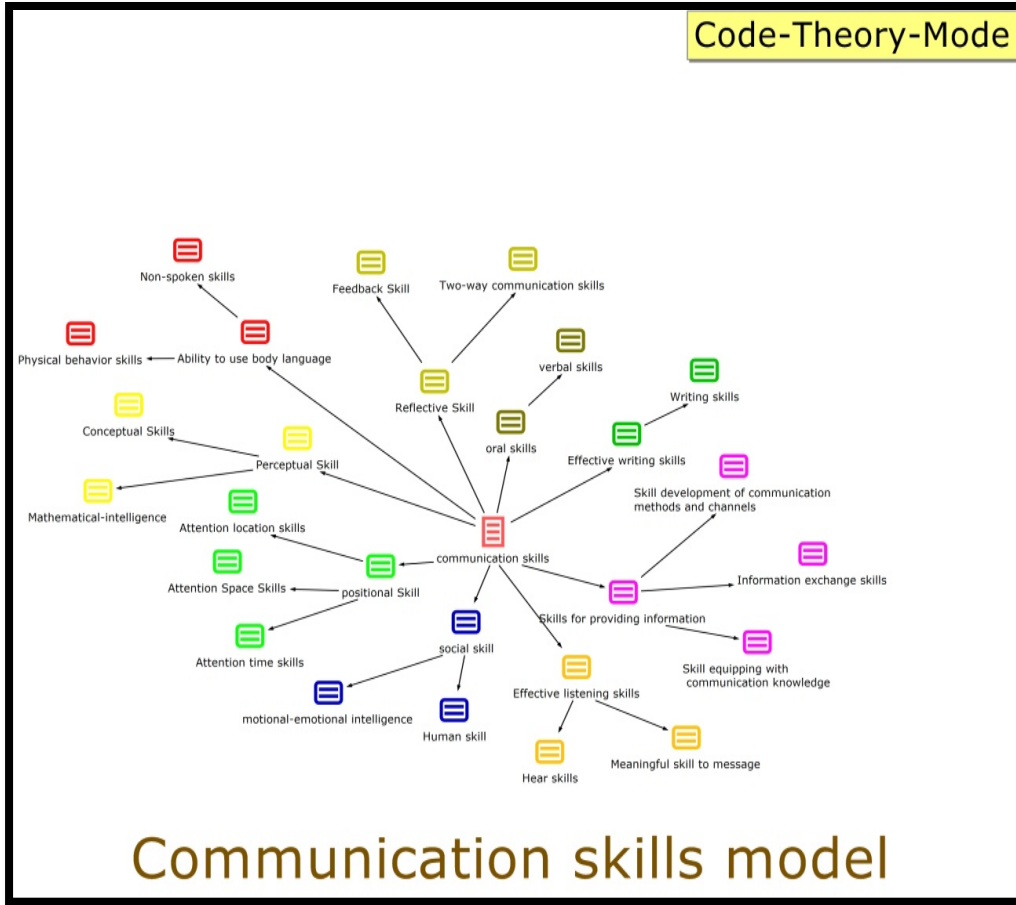


Figure 1: The model of communication skills using MAXQDA10 software

In this research, after the necessary interviews and analysis of information, with the help of MAXQDA10 software, a new dimension for communication skills was obtained. Based on these dimensions, the measurement tool was based on the opinion of five experts of the administrative system, which are generally in the administrative-financial areas And administrative transformation with high business experience. Since questionnaire questions were raised by a specific group, in creating and developing a draft questionnaire, the guidance of academic and academic elites was also used to eliminate the defects of the questionnaire as much as possible. After designing the first questionnaire, in order to achieve a final scale, it was necessary to evaluate the related tools in terms of validity and reliability. In the quantitative part of the research, for evaluating the validity of the research, several methods have been used such as face validity, content validity and construct validity, and for calculating the reliability of the Cronbach's alpha and hybrid reliability, each of these statistical techniques will be described below.

Formal Credentials

In order to implement qualitative formalism, 5 of the university lecturers in the field of interview management were conducted and their opinions regarding each of the items were given in terms of difficulty, proportionality and ambiguity which, after analyzing and

summarizing, Some of them were modified and revised. As a result, some items have been improved in writing and the text has become more apparent in terms of font and appearance.

Content Valid

The content validity indicates whether the items in question are reasonably measurable and adequately captures the scope of the structure. (Polit and Teton, 2009). To evaluate content validity, two methods of content validity ratio (CVR) and content validity index (CVI) were used. To obtain (CVR), the Lavasheh index was used. For this purpose, 15 of the people who were studying or graduating in management were selected and, by explaining the objectives of the test, they were asked to answer each question based on the three-part Likert scale "a necessary condition." ", " The item is useful, but not necessary, "and" Classification is not necessary ". The collected data were analyzed for calculating the content validity ratio based on the following formula (Ling and Arthur, 2000, 64-57).

$$CVR = \frac{\text{The number of specialists who have chosen the necessary option}}{\text{total number of specia lists}} \frac{\text{Total number of specia lists}}{2}$$

Given the fact that the amount (CVR) depends on the number of panel members, therefore, since the number of experts who evaluated the questionnaire was 15, therefore, according to the table of the Lowsheh index, the minimum acceptable score for each score is 49 The percentages were set to stay intact, and the items that the experts scored below 49% were eliminated.

In this research, the content validity index (CVI) was calculated using the Waltz and Bassel method, and the relevance criterion was determined in a four-point Likert scale, and by 14 students or graduates of the Ph.D. in Public Administration and Business with at least 10 years of administrative or Five years of academic teaching experience was studied and analyzed using the following formula. Exit executed items (CVR) and (CVI) are shown in Table 1.

$$CVI = \frac{\text{The number of specia lists who scored grade 3 and 4}}{\text{total number of specia lists}}$$

- Not acceptable CVI < 0.7
- Need to review and correct 0.7 < CVI < 0.79
- Acceptable (Pazargadi and others, 1391, 881). CVI > 0.79

Table 1: Table of contents for content validity checkpoints

ROW	Phrase	Content Valid	
		CVI	CVR
1	In communication, I use popular symbols from the other side	0.66	-
2	I use face and face changes for effective communication	-	0.37
3	I use eye contact with others.	-	0.44
4	I use more than hearing from seeing	-	0.11
5	When I talk to others, I lean toward the speaker.	-	0.45
6	When I encounter other, firmly but still quietly	-	0.36



7	When I make an animated connection	0.71	-
8	In negotiating, I set my body to the person I talk to.	0.69	-
9	I make important appointments in certain places.	-	0.37
10	I care about the distance with the other party in relation to others.	-	0.25
11	I try to listen carefully to the opposite.	-	0.39
12	I get help with the transmission of messages from tables, charts and numbers.	-	0.44
13	In communication, I use self-disclosure techniques	-	0.31
14	Depending on the message, I use different communication channels	-	0.35
15	In the negotiations, I will highlight important issues.	0.70	-
1	In communication, I use popular symbols from the other side	0.66	-

Structural validity

Structural validity implies that the results obtained from the application of the measurements are compatible with the theory that the test was based on them (Pahizgar and Aghajani, Afrooz, 2011, 226). In order to validate the structure, one can use factor analysis which is based on two types of exploration and confirmation (Mirzai, 1394).

Exploratory Factor Analysis for Developing Communication Skills Scale

- *Step 2) Data preparation to perform factor analysis*

Before the factor analysis, the refinements should be performed, and the correlation between the modified options (CITC) was used to this end. In this method, 19 items had a CITC of less than 0.30 and were not suitable for analysis. Therefore, the removal of 46 items remained for the next steps, as shown in Table (2).

Table 2: Quantities (CITC) for refinement in the communication skills scale

Item	CITC	Item	CITC	Item	CITC	Item	CITC	Item	CITC	Item	CITC
BL1	0.563	EL2	0.165	FE4	0.584	AN5	0.539	SO7	0.171	PR4	0.353
BL2	0.002	EL3	0.549	FE5	0.525	AN6	0.782	SO8	0.139	PR5	0.157
BL3	0.075	EL4	0.698	FE6	0.717	AN7	0.585	SO9	0.772	PR6	0.551
PO1	0.710	EL5	0.288	FE7	0.742	AN8	0.506	SO10	0.574	PR7	0.420
PO2	0.409	EL6	0.478	FE8	0.531	AN9	0.707	SO11	0.773	PR8	0.518
PO3	0.456	EL7	0.478	FE9	0.619	SO1	0.568	SO12	0.211	PR9	0.630
PO4	0.523	EL8	0.016	FE10	0.496	SO2	0.406	SO13	0.519	PR10	0.195
PO5	0.637	EL9	0.181	AN1	0.143	SO3	0.665	SO14	0.141	PR11	0.677
PO6	0.067	FE1	0.194	AN2	0.754	SO4	0.150	PR1	0.556	PR12	0.469
PO7	0.532	FE2	0.613	AN3	0.751	SO5	0.032	PR2	0.138	PR13	0.568
EL1	0.181	FE3	0.519	AN4	0.388	SO6	0.539	PR3	0.486		

- *Step 2) Identify the possibility of performing factor analysis on the data*

To find out whether scale-related data can be reduced to several factors, they use the Two-Degree Coarse-Meier-Alcohol Sample Index (KMO) and the Bartlett Spread Test. If the minimum score acceptable for the Coeriz-Mayer-Ultra-Sufficiency Index is 0.7 and higher and the Bartlett test value is at a error level of less than 0.05, then factor analysis can be used and data can be reduced There are a number of underlying factors (Habibpour and Safari, 2012).

According to the results of the test, the KMO (Kaiser-Meier-Olicon) value is higher than 0.7 and the Bartlett test is smaller than 0.05, so factor analysis can be used and data can be reduced to a number Infrastructure factors.

Table 3: KMO and Bartlett tests on the communication skills scale

Sampling adequacy index (KMO)		0.715
Bartlett test	Approx. Chi-Square	27436.318
	df	1035
	Sig.	0.000

- **Step 3) Understanding the contribution of the agents to explain the variance of each item**

The rate of subscription is the variance of a variable that is shared with other variables. If the total value for the variable is less than 0.30, it indicates that the variable is not related to the agents and therefore should be deleted from the analysis at this stage, according to table (4) below since the extracted value for All questions are higher than the desired threshold, so no terms are deleted and exploratory factor analysis will enter into the next step.

Table 4: Total extracted values for each item in the scale of communication skills

Quantity extracted	Phrase	Quantity extracted	Phrase	Quantity extracted	Phrase	Quantity extracted	Phrase
0.848	PR6	0.889	AN8	0.892	FE4	0.904	BL1
0.846	PR7	0.915	AN9	0.778	FE5	0.934	PO1
0.849	PR8	0.772	SO1	0.814	FE6	0.932	PO2
0.785	PR9	0.649	SO2	0.901	FE7	0.948	PO3
0.796	PR11	0.761	SO3	0.847	FE8	0.880	PO4
0.916	PR12	0.890	SO6	0.913	FE9	0.923	PO5
0.642	PR13	0.711	SO9	0.911	FE10	0.886	PO7
		0.904	SO10	0.795	AN2	0.906	EL3
		0.768	SO11	0.873	AN3	0.837	EL4
		0.804	SO13	0.893	AN4	0.884	EL6
		0.862	PR1	0.925	AN5	0.909	EL7



- **Step 4) Recognizing the contribution of each agent to the sum total of the variance of all the items:**

In this step, to calculate the fact that each factor has been able to determine a few percent variance of the variables set, the variance criteria explained by the variables were used by the factors. As shown in Table (5), out of a total of 46 remaining CITCs, based on the results obtained, 13 factors have a value greater than one, so of a total of 46 options, a maximum of 13 factors can be made.

Table 5: The total value of factor variance for the communication skills scale

Factor	Total	Percentage Variance	Aggregate Percentage	Factor	Total	Percentage Variance	Aggregate Percentage
1	12.475	27.120	27.120	.....	.....	.....	.....
2	4.225	9.250	36.370	.....	.....	.....	.....
3	3.368	7.322	43.692	.....	.....	.....	.....
4	2.940	6.391	50.083	.....	.....	.....	.....

5	2.695	5.858	55.941	.....	.....	.....	.....
6	2.416	5.253	61.694	.....	.....	.....	.....
7	2.223	4.883	66.027	.....	.....	.....	.....
8	1.963	4.267	70.294	40	0.022	0.040	99.834
9	1.729	3.758	74.254	41	0.018	0.040	99.874
10	1.481	3.219	77.271	42	0.016	0.035	99.908
11	1.289	2.802	80.074	43	0.013	0.027	99.935
12	1.187	2.580	82.653	44	0.012	0.025	99.961
13	1.006	2.187	84.841	45	0.010	0.021	99.982
14	.....	.....	.....	46	0.008	0.018	100.000
15	.....	.....	.....	
16	.....	.....	.....	
17	.....	.....	.....	

- *Step 5) Recognizing the matrix of correlation between items and factors and classifying each item in each factor*

At this stage, the results of the rotating component matrix were used to classify the items among the agents, and the researchers categorized them according to the largest factor load for each of the items. As indicated in Table (6), each item is assigned to one of the agents.

Table 6: Recognition of correlation matrix between items and factors and categorizing each item in each factor

Phrase	Factor										
	1	2	3	4	5	6	7	8	9	10	11
AN2	0.006	-0.026	0.258	-0.078	0.038	0.035	-0.078	-0.078	0.618	0.865	-0.078
AN3	0.194	0.171	-0.078	0.061	0.083	0.625	-0.078	0.619	0.388	-0.078	0.080
AN4	-0.078	0.080	0.571	-0.078	-0.078	0.590	0.006	0.006	0.001	-0.078	0.006
AN5	0.006	0.194	0.590	0.006	0.080	0.601	0.388	0.061	0.083	0.006	0.006
AN6	0.708	0.083	0.006	0.061	0.006	0.795	0.001	0.194	0.388	0.388	0.194
AN7	0.665	0.078	0.388	0.135	0.194	0.083	0.171	0.083	0.685	0.001	0.083
AN8	0.847	0.080	0.001	-0.026	0.083	0.388	0.421	0.862	0.079	0.171	-0.078
AN9	0.006	0.006	0.083	0.083	-0.078	0.630	0.629	0.232	0.006	0.135	0.080
SO1	0.123	0.194	-0.078	-0.078	0.080	0.564	0.123	0.582	0.080	-0.026	0.061
SO2	0.564	0.083	0.080	0.680	0.061	-0.014	0.250	0.194	0.006	0.171	0.171
SO3	0.726	-0.078	0.079	0.871	0.171	0.001	0.051	0.083	0.194	0.135	0.061
SO6	0.123	0.637	0.080	0.780	0.061	0.194	0.171	-0.078	0.061	0.033	0.171
SO9	0.133	0.672	0.006	0.706	0.171	0.083	0.086	0.080	0.194	0.080	0.080
SO10	0.011	0.218	0.194	0.194	0.080	0.232	0.650	0.006	0.083	0.006	0.006
SO11	0.080	0.743	0.006	0.396	0.006	0.194	0.806	0.194	0.083	0.194	-0.078
SO13	0.006	0.575	0.061	0.796	0.194	0.083	0.061	0.083	0.232	0.083	0.388
PR1	0.194	0.788	0.835	0.396	0.083	0.083	0.135	0.083	-0.164	0.083	0.001
PR3	0.083	0.444	0.561	0.194	0.083	0.232	-0.026	0.232	0.175	0.232	-0.078
PR4	0.083	0.515	0.671	0.083	0.232	-0.164	0.171	-0.164	0.083	-0.164	0.194
PR6	0.232	0.083	0.741	0.083	-0.164	0.194	-0.026	0.011	0.083	0.614	0.083
PR7	-0.164	0.083	0.588	0.232	0.011	0.642	0.388	0.194	0.232	0.194	0.083
PR8	0.011	0.232	0.171	0.851	0.080	0.770	0.171	0.083	-0.164	0.083	0.232
PR9	0.006	-0.164	0.735	0.194	0.194	0.194	0.006	0.083	0.011	0.083	0.194

PR11	0.006	0.011	0.539	0.806	0.083	0.083	0.061	0.232	0.080	0.232	0.083
PR12	0.080	0.061	0.558	0.711	0.232	-0.078	0.006	-0.078	0.011	0.232	0.011
PR13	0.006	0.171	0.411	0.816	-0.164	0.388	-0.078	0.080	0.006	-0.164	0.006
BL1	0.194	0.080	0.716	0.006	0.011	0.001	-0.078	0.006	0.006	0.011	0.006
PO1	0.896	0.006	0.327	0.080	0.061	0.388	0.006	0.006	0.080	0.061	0.011
PO2	0.796	0.194	0.103	0.006	0.171	0.001	0.388	0.194	0.006	0.171	0.006
PO3	0.996	0.083	0.723	0.194	0.080	0.083	0.001	0.083	0.194	0.080	0.006
PO4	0.994	0.083	0.533	0.396	0.006	-0.078	0.171	0.171	0.171	0.079	0.080
PO5	0.083	0.232	0.880	0.438	0.232	0.011	0.232	0.080	0.061	0.080	0.006
PO7	0.830	-0.164	0.006	0.516	-0.164	0.006	-0.164	0.006	0.171	0.006	0.194
EL3	0.232	0.011	0.194	0.588	0.011	0.706	0.011	0.194	0.080	0.194	0.396
EL4	0.396	0.006	0.006	0.210	0.527	0.606	0.135	0.396	0.006	0.006	0.396
EL6	0.396	0.194	0.061	0.626	-0.426	0.794	0.033	0.396	0.194	0.061	0.396
EL7	0.396	0.083	0.135	0.232	0.442	0.006	0.080	0.396	0.083	0.135	0.696
FE2	0.194	0.083	-0.026	-0.164	0.539	0.061	0.006	0.194	0.083	-0.026	0.194
FE3	0.083	0.732	0.171	0.011	0.366	0.396	0.194	0.083	0.232	0.171	0.083
FE4	0.083	0.880	0.079	0.080	0.171	0.171	0.079	0.080	0.083	0.006	0.006
FE5	-0.078	0.706	0.080	0.006	0.080	0.061	0.080	0.006	-0.078	0.123	0.194
FE6	0.080	0.694	0.006	0.194	0.006	0.171	0.006	0.194	0.080	0.564	0.083
FE7	0.079	0.796	0.194	0.396	0.194	0.080	0.194	0.396	0.079	0.726	-0.078
FE8	0.080	0.696	0.006	0.396	0.396	0.006	0.006	0.396	0.080	0.123	0.637
FE9	0.006	0.596	0.061	0.396	0.396	0.194	0.061	0.396	0.006	0.133	0.672
FE10	0.194	0.194	0.079	0.080	0.171	0.171	0.079	0.080	0.194	0.911	0.218

- **Step 6) Naming and commenting factors:**

In the final step, structural and infrastructural structures were identified. When naming in each factor, it was considered that this naming is based on the common meaning of the variables in which the variable (factor) has a meaningful load factor. That is, the name should provide a meaningful cover for those variables. Based on the results of exploratory factor analysis in the communication skills scale, from 65 options in 7 dimensions, 19 items were eliminated and only 46 options were left, and their division between dimensions was shown in Table (7). Four dimensions of positional skills, feedback skills, social skills, and analytical-perceptual skills are equivalent to dimensions before exploratory analysis. Two dimensions of effective listening skill and body language skills have been eliminated, and three new dimensions have emerged after exploratory analysis that includes cognitive skills -Language, skills of using information and communication technology and information exchange skills were named. Also, after specifying questions for each dimension, the SO1 statement in the third dimension, the AN7 in the fourth dimension, the AN2 in the fifth dimension, the FE10 in the sixth dimension, and the EL7 and FE2 clauses in the seventh dimension (due to conceptual similarities and only one Then they integrated themselves.

Table 7: Naming the agents extracted in the communication skills scale

Factor	New naming	Matching items	Number of items
1	Positional Skill	PO1– PO2– PO3– PO4– PO7	5
2	Feedback Skill	FE3– FE4– FE5 –FE6– FE7 –FE8– FE9	7



3	Information exchange skills	PR1 –PR3– PR4– PR6– PR7– PR9– BL1–SO1– PO5	9
4	social skill	SO2 –SO3 –SO6 –SO9 –SO13– AN7	6
5	Technology Skills	PR8– PR11 – PR12 – PR13 – AN2	5
6	Analytical-Perceptual Skills	AN3 – AN4 – AN5 – AN6 – AN9 – EL3 – EL4 – EL6 – FE10	9
7	Cognitive-Behavioral Skills	SO10 –SO11 –EL7 –FE2 –AN8	5

Confirmatory Factor Analysis for Construct Validity

In this section, we calculate the corroborative factor analysis for measuring the structural validity of the previous sections for communication skills. Factor loads are the correlation of the variables with the factors that, if the absolute values of these factor loads are 30/0 and higher, are considered as high factor loads, and if the factor load of an option is less than this value, it can be ignored and deleted. Confirmatory factor analysis for the communication skills scale calculated using LaserLearn software shows that all factor loads are acceptable, so the option is not deleted, the results are shown in Table (8).

Table 8: Confirmatory Factor Analysis Results for Communication Skills Scale

Items	Factor load	Items	Factor load	Items	Factor load	Items	Factor load
BL1	0.73	FE7	0.77	AN6	0.82	PR1	0.72
PO1	0.72	FE8	0.72	AN7	0.58	PR3	0.81
PO2	0.48	FE9	0.36	AN8	0.47	PR4	0.51
PO3	0.35	FE10	0.78	AN9	0.77	PR6	0.78
PO4	0.64	EL3	0.81	SO1	0.31	PR7	0.78
PO5	0.32	EL4	0.79	SO2	0.76	PR8	0.77
PO7	0.79	EL6	0.80	SO3	0.77	PR9	0.78
FE2	0.70	EL7	0.80	SO6	0.81	PR11	0.44
FE3	0.78	AN2	0.80	SO9	0.79	PR12	0.79
FE4	0.71	AN3	0.78	SO13	0.80	PR13	0.83
FE5	0.72	AN4	0.75	SO10	0.80		
FE6	0.76	AN5	0.79	SO11	0.61		

Reliability of Data Collection Tool

In order to determine the reliability of data collection tools, this paper uses internal consistency reliability method. In order to measure the internal consistency reliability using the Smart PLS software, the Cronbach's alpha method and the combined reliability, also known as the Dillon-Goldstein coefficient, were assisted with an acceptable value of above 0.7. The results show the suitability of the internal consistency of structures, as shown in the table below.

Table 9: The results of the reliability of communication skills

Items	Reliability Statistics				
	N of Items	Average Variance Extracted (AVE)	Composite Reliability	rho_A	Cronbach's Alpha
Positional Skill	6	0.621	0.873	0.865	0.783
Feedback Skill	7	0.629	0.855	0.823	0.795
Analytical-Perceptual Skills	9	0.762	0.839	0.828	0.789
social skill	6	0.711	0.834	0.829	0.811

Cognitive-Behavioral Skills	5	0.615	0.885	0.872	0.816
Information exchange skills	8	0.642	0.826	0.805	0.781
Technology Skills	5	0.607	0.843	0.837	0.743
Communication skills	46	0.716	0.895	0.877	0.839

Testing Hypotheses

In this section, the researchers have used the created scales to identify the factors affecting the effectiveness of communication skills in government agencies, which include the following hypotheses:

Positional skills are effective in the effectiveness of communication skills in government organizations.

2. The feedback skill is effective in the effectiveness of communication skills in government agencies.

3. Analytical-Perceptual Skill Effective in the Effectiveness of Communication Skills in Government Organizations.

4. Social skills are effective in the effectiveness of communication skills in government organizations.

5. Cognitive-behavioral skills are effective in the effectiveness of communication skills in government organizations.

6. The exchange of information is effective in the effectiveness of communication skills in government agencies.

7. The skill of using information and communication technology is effective in the effectiveness of communication skills in governmental organizations.

Preliminary Test of the Natural Distribution of Data

The first step in analyzing the hypotheses is to examine the normal distribution of data. One of the ways to test the naturalness of distribution is the use of the Kolo-Igor-Smirnov test. In this test, if the significance level of the test is greater than 5%, the claim is that the distribution of accepted data is normal, and therefore parametric tests can be used; otherwise, nonparametric tests should be used. The following table shows the value of Z-Kolmogorov-Smirnov test and the significance level.

Table 10: Results of the Kolmogorov-Smyrom test

Normality test of the community	Kolmogorov-Smirnov		
	Number	The statistics	The significance level
Positional Skill	429	0.132	0.199
Feedback Skill	429	0.155	0.123
Analytical-Perceptual Skills	429	0.132	0.055
social skill	429	0.139	0.074
Cognitive-Behavioral Skills	429	0.150	0.177
Information exchange skills	429	0.187	0.099
Technology Skills	429	0.136	0.111

According to the results of the Kolmogorov-Smirnov test and its significance level in all dimensions above 0.05, it can be concluded that the data follow the normal distribution.



Therefore, the Pearson test is used to test the hypotheses. The result will be shown in Table (11). A look at the coefficients of the table shows that the significance level between variables is less than 0.05 and there is a positive correlation. Therefore, it is concluded that these factors are one of the effective factors in the effectiveness of communication skills in governmental organizations and the hypotheses are confirmed.

Table 11: Pearson Test of Communication Skills

Pearson		Positional Skill	Feedback Skill	Information exchange skills	social skill	Technology Skills	Analytical-Perceptual Skills	Cognitive-Behavioral Skills
Positional Skill	Pearson correlation	1	0.821**	0.652**	0.741**	0.516**	0.743**	0.696**
	Significance level		0.011	0.033	0.024	0.042	0.034	0.049
	Number	429	429	429	429	429	429	429
Feedback Skill	Pearson correlation	0.821**	1	0.521**	0.712**	0.424**	0.787**	0.620**
	Significance level	0.009		0.035	0.047	0.013	0.031	0.033
	Number	429	429	429	429	429	429	429
Information exchange skills	Pearson correlation	0.642**	0.550**	1	0.555**	0.840**	0.552**	0.683**
	Significance level	0.028	0.013		0.023	0.009	0.020	0.049
	Number	429	429	429	429	429	429	429
social skill	Pearson correlation	0.756**	0.768**	0.555**	1	0.459**	0.766**	0.754**
	Significance level	0.023	0.000	0.003		0.019	0.007	0.000
	Number	429	429	429	429	429	429	429
Technology Skills	Pearson correlation	0.566**	0.436**	0.740**	0.459**	1	0.429**	0.492**
	Significance level	0.034	0.003	0.005	0.022		.0000	0.012
	Number	429	429	429	429	429	429	429
Analytical-Perceptual Skills	Pearson correlation	0.753**	0.795**	0.572**	0.786**	0.429**	1	0.754**
	Significance level	0.030	0.026	0.013	0.035	0.037		0.000
	Number	429	429	429	429	429	429	429
Cognitive-Behavioral Skills	Pearson correlation	0.697**	0.721**	0.533**	0.654**	0.492**	0.754**	1
	Significance level	0.042	0.005	0.014	0.013	0.016	0.000	
	Number	429	429	429	429	429	429	429



DISCUSSION AND COMPARISON

Today, a fresh start has begun in management research that focuses on factors that limit the effectiveness of factors that increase positive work behaviors. One of these trends emphasizes the development of communication skills in work (Madin et al., 2015). Many organizational researchers acknowledge that effective communication with the physical and mental health of the staff is ultimately linked to organizational success. Therefore, the development of communication skills in today's complex world is of great importance because without such competencies, the organization can not develop (Corne, 2013). Providing a communication system is one of the core tasks of the manager because they spend more than 70 percent of their time on communication. It is natural for managers to have effective communication with individuals and understand their motives for achieving organizational goals. Therefore, the establishment of a communication network is the first task of the manager. As Herbert Simon summarized, the organization can not exist without communication (Hoi and Maslik, 2003). However, the study of communication and communication skills in the management literature and organizational behavior is limited and our knowledge of these competencies and their learning style is limited. Hence, communication and communication skills in the organization are the areas in need of study and attention (Dokki, 2012). In this research, using a deep interview with a number of national sample managers and coding using MAXQDA software, the initial scale of communication skills was acquired and using the formal validity, content and structure (exploratory and confirmatory factor) of the final scale were obtained. Then, by distributing the questionnaire between the executive agencies and testing the hypotheses, the results indicate that all the hypotheses are validated. Given that the theory of data in this research is an initial theory, it will be more credible to the extent that this theory is supported by relevant theories (Adib Hajbagheri, 2003). Looking at the literature of research and analysis of research findings and the extensive examination of theories related to this domain, it seems that the theory developed in this study is most closely related to the following studies.



Table 12: Comparison of the findings of the research findings with related communication skills

he name of the researchers	Studies related to research findings	Research findings
Pearson & Associates (2011)	Interpersonal skills, Inner thinking, Perceptions, Minds, Use of experiences, Control of feelings, Interpretation and evaluation	Information exchange skills and analytical-cognitive skills
Jung and Yun (2011)	Body movements, physical appearance, proximity and phonetic language	Social skills and psychological skills
Freet and Marseink (2005)	Information Technology Skills, Management Skills, Commitment, Subject knowledge	Skill of Information Technology
Quinn Dam (2004)	Ability to receive and send messages, tune in to emotions, Listening skills, insight into communication process and communication decisiveness	social skill
Farhange (2004)	Openness, support, empathy, positivism and equality	social skill

References

- Adib Hajbagheri, Mohsen (2003), *Grand Theory Research Methodology: Theory and Theory in the Humanities and Health Sciences*, Tehran, Bashari Publishing.
- Asadi Shoki, Feyzalah (2010), *Investigating the Role of Effective Communication Factors on the Performance of Employees of the Tax Administration of Guilan Province*, *Management Engineering*, Year 4, No. 37, 43-32.
- Farhange, Ali Akbar (2002), *Organizational Communication*, Nashrça, Fourth Edition, Tehran.
- Freet, B ; Marcinek, M.(2005). *The future of the academic library and the academic librarian : a delphi study reloaded*. Routledge ,11(1), pp :37–63.
- Ghaznfari. Ahmad, Mazrooji, Hussein (1394), *Investigating the Factors Affecting the Effectiveness of Organizational Communication in a Government Organization*, *Journal of Cultural Management*, Vol. 31, No. 2, 599-581.
- Ghobadi. Majid (2008), *Communication Skills*, *National Bank Monthly*, No. 150, 19-18.
- Habib Pour. Cream and Safari. Reza (2012), *Comprehensive Guide to Spss Application in Survey Research (Quantitative Data Analysis)*, Tehran, Moftekaran-Loya Publications, 234.
- Hossain. Z, (2013), *Effective communication brings successful organizational change*, *The Business & Management Review*, Vol.3 Number-2, January 2013, pp: 43–50.
- Kumar Singh. A, (2014), *Role of Interpersonal Communication in organizational Effectiveness*, *International Journal of Research in Management & Business Studies (IJRMBS 2014)* Vol. 1, Issue 4 Oct. - Dec. 2014. PP: 36–39.
- Nazari Rasool Ghasemi Hamid, Sohrabi Zahra (2014), *The Relationship between Relationship Skills of Leadership Styles of Organizational Culture and Managers' Effectiveness in Sport Organizations: Structural Equation Modeling*, *Sport Management Research, and Motor Behavioral*, 102-93.
- Pazargati. Mehrnush, tears of torab. Tahereh, Alavi Majd and Hamid, Khosravi. Sharareh (2012), *Designing an Instrument for the Evaluation of General Practice of Nursing Students*, *Iranian Journal of Medical Education*, Vol. 12, No. 11, 887-887.
- Rahmani. Mehri (1396), *Communications*, *Sports Journal*, No. 26, Summer, 1369, 26.
- Ramadanty. S, Martinus. H, (2016), *Organizational Communication: Communication and Motivation in the Workplace*, *Humaniora*, Vol. 7, No.1 January 2016, PP: 77–86.
- Robines. P, Stephen, (1998) , *organization Behavior*. USA: prentice- Hall, International, Inc, P: 310.
- Smith gene ,(2005) *Communication skills critical for internal auditors*, *managerial journal* ,Vol 20, No 5, pp: 513–519.



-
- Smith, Jon. Barton, Matthew H. Harvell, Lindsey A. Christine, Proctor (2014). Effective Organizational Communication Affects Employee Attitude, Happiness, and Job Satisfaction, Southern Utah University - Sherratt Library, PP:1-74.
- Stoner. A. F, James, Freeman. R, Edward,(1989), management, USA: prentice- Hall, International, Inc, P: 111.
- Vakele. Mohammad Massoud, Heidarnia. Alireza, Niknamami, Shamsuddin (2012), Designing and Psychometrics of Interpersonal Communication Skills Assessment Tool in the Health Intermediaries of Zanzan City, Faculty of Nursing and Midwifery, Tehran University of Medical Sciences, 19-5.

