Design and Validation of Organizational Beliefs Questionnaire (OBQ) (Case Study: Cultural Organizations of Isfahan)

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Abstract

This study was conductedaimed at evaluating the validity and reliability of a researcher-made questionnaire on organizational beliefs.For this purpose, 50 variables in 11 organizational indicators were first identified by studying the organizational behavior literature as well as the characteristics of believers in organizations.In the first stage, the number of items was reduced to 36 variables and in the final stage to 24, using the opinions of professors and experts in the field of management, especially honorable supervisors and advisors, given the large number of questions.The variables were then correlated at 11 indicators, 6 dimensions, and 3 levels of organizational beliefs with topics including beliefs at the macro level, beliefs at the level of structures and social beliefs.Thus, the concept of organizational belief was attempted to be studied using the study levels, dimensions, indicators and variables.Accordingly, a 24-item questionnaire was developed and distributed. After the questionnaire was collected, it was found that one of the indicators was not effectively measured.Therefore, a further question was designed and the questionnaires were redistributed to the population after consultation with the supervisor. The population consisted of all employees of cultural organizations of Isfahan province out of which 275 persons were selected as sample by random sampling.After continuous follow-up and despite being busy, the sample finally answered 220 questionnaires and was analyzed.Data were processed using SPSS, Excel and AMOS software. The Kaiser-Meyer-Olkin Measure of sampling adequacy (KMO) in the study was 868 and, because it was close to one, the sample size was adequate for factor analysis.After securing the adequacy of the sample, the Sig. value of the Bartlett's test was calculated to be 0.000, indicating that the tool was suitable because it was less than 0.05%.Cronbach's alpha was then 0.960% for the first phase questionnaire and 0.961% for the second phase questionnaire.The questionnaire was valid because the alpha test value of the researcher-made questionnaire was much higher than 0.000.In addition, it was found that the study tool was valid using extraction of initial and extraction communalities, calculation of total variance explained, scree plot, component matrix, rotated component matrix, and sequential rotated component matrix. Finally, the study tool was validated by exploratory factor analysis (EFA) method and then, it was assured that the items were standard using the scatter plot and the normal quantile-quantile(QQ) plot.

Keywords: *organizational believer, organizational beliefs, organization, organizational culture, organizational behavior.*

Problem statement

Employees are considered the most valuable asset of any organization. In other words, the productivity and profitability of an organization are significantly dependent on the performance of employees in line with organizational goals, prospects, and strategies.According to studies, the performance of an organization's employees will increase dramatically if the goals of the individual employees are properly set and aligned with the organizational strategies and goals.When employees focus on activities intelligently and efficiently, they will naturally be more involved in the work and the implementation of strategiesin line with organizational goals will be accelerated.In this case, employee turnover will be reduced and accountability and organizational productivity will be doubled.[1]

Many scholars believe that among all the concepts studied by organizational behavior and management specialists and organizational psychologists in different situations, organizational beliefs are of the most important research areas in organizations.However, measuring employees' job and organizational attitudes has always been problematic for analysts and managers, and tools designed in this area often lack the necessary comprehensiveness, reliability, and validity.So managers are often faced with the question of whether a standard questionnaire can be designed in organizations to measure the level of organizational beliefs of employees so that it can be applied to most government agencies. To this end, by combining different models and benefiting from the experiences of previous studies, the reliability and validity of the designed questionnaire was confirmed by using Cronbach's alpha coefficient and factor analysis in addition to identifying factors affecting job and organizational beliefs.

The questionnaire was then administered to a number of government agencies.

Introduction

One of the most important pillars of human identity, and the formation of the individual and society, has long been considered from various perspectives, is human knowledge and, in particular, belief. Like other phenomena, human beliefs are certainly influenced by both epistemic and non-epistemic factors and causes, as they affect some things. In philosophy, belief and its relation to knowledge have been the focus of scholars since Socrates.In Theaetetus[2], Plato offered a definition of propositional knowledge that has been recognized as the standard definition of knowledge in the West from then on to the contemporary period. This definition consists of three basic components: justification, truth, and belief.[3] Thus, belief is one of the three basic components of knowledge or cognition in its general sense. That is to say, knowledge will not be formed as long as the object belief does not belong to a proposition.

David Hume is the first empiricist philosopher, who seriously considered the concept of belief.He initially focused on "the psychology of belief" and argued that belief is something like "feeling" rather than "understanding".Emphasizing on how beliefs are shaped, Richard Swinburnestated that humans cannot choose beliefs because belief are somethings that happens to humans rather than what they do[4].According to some scholars in the field, linking categories creates beliefs.Beliefs referring to causes of behavior or attributions are among those beliefs that are of particular

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[3]. Moser, Paul (1993): Tripartite Definition of Knowledge in J Dancy and E. Sosa (EDS) a Companion to Epistemology. Oxford: Blackwell. p 509.
[4]. Swinburne, Richard, Faith and Reason, (1981) Oxford: Clarendon Press. P25.

importance because the way we perceive(interpret) a behavior relies on the attributions we give it.In his most recent memoirs, Wittgenstein wrote: It is difficult to understand the groundlessness of our beliefs. He focused his thoughts on the extent to which life is difficult for people to accept absolutely and undocumented[1].

In Persian, the word "Belief" is translated as faith and trust[2]. Belief also means accepting one's word the verb believing is rooted in it, which means knowing one's word right and acknowledging one's word intrinsically[3].In a simple definition, beliefs are ideas that one believes in their righteousness.For Krech and Crutchfield, belief is a stable formation of perception and a relative cognition of a particular aspect of one's world. In the broader sense, belief involves cognitions, notions, or rituals[4].According to a definition provided by Wendell French, belief is a proposition based on how one perceives certain actions in the world to be true. Accordingly, he regards it as a matter of personal perception[5].

The origin of organizational beliefs

The first point about these beliefs is that they are not created suddenly and completely by particular individuals or societies, but are the product of the collective wisdom of an age or the zeitgeist[6].Beliefs, on the other hand, are the ideas that have been formed over generations and,

although widely present in most human societies, not everyone believes in them equally, and the people's stand can range from total dependence to total disbelief[7]. The second point is that these beliefs themselves are a consequence of the cultural elements and factors surrounding us, and these factors play an important role in political, social, organizational and business judgments[8].Thus, organizational beliefs largely follow beliefs that are the result of living in a particular culture or emanating from the values that govern time and place.However, social psychologists have argued that beliefs in a particular group or population have three main roots or origins, including personal experience, information received from others, and inference, while acknowledging that beliefs can be the simultaneous product of these three origins[9].Some origins[9].Some state that the belief system of humansis their mental image of the environment[10], complemented by probable causal relationships, because beliefs are rooted in direct observation and inference of pre-recognized relationships[11] and are confirmed by some lived experiences.Individuals then decide to reinforce their foundations and give them a place psychologically and socially (rationalizing and institutionalizing)[12].The resulting cognitive structure will therefore be a knowledge structure

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[7]. Mohseni, Manouchehr (2007). A Survey in Iranian Cultural Sociology, Tehran: Institute for Culture, Art and Communication, p. 288.

[8]. Triandis, Harry Charalambos (2009). Culture and Social Behavior, translated by Nosrat Fata, Third Edition, Tehran: Rasanesh Publications, p. 198.

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[10]. Rezaian, Ali (2012). Principles of Organizational Behavior Management, Tehran. The Organization for Researching and Composing University Textbooks in the Humanities (SAMT), p. 204.

[11]. Kreitner, Robert & Angelo kinicki (1992). Organizational Behavior: 2nd ed.Homewood, IRWIN .p99.

[12]. Mohseni, Manouchehr (2007). A Survey in Iranian Cultural Sociology. Tehran: Institute for Culture, Art and Communication, p. 287.

or a cognitive schema[1]. According to Franzoi, beliefs are organized and replicated mental schemas or patterns about a stimulus are is the product of experience and selectively guides the processing of new information[2].

Most organizational beliefs have emerged since the beginning of this discipline, and have evolved over time as organizations change.Beliefs such as respect for people's personality, respectful and modest behaviors, open-mindedness and preservation of human dignity, and so on are beliefs that are derived from human values and are the outcome of studies and theories of behavioral scientists and the result of their experiences and observations[3].The Theory of Belief inJust World, developed by social psychologist Melvin Lerner in 1980, is of the same type.This theory states that people are intrinsically tend to believe that they live in a just world in which everyone earns what he or she deserves[4].

On the other hand, founders and leaders are considered to be the source of beliefs and values that make each group moveto interact with internal and external problems, and if what leaders suggest is applied and persisted, they will gradually change from the assumption of a leader to a common assumption and belief[5].According to to Peters and Waterman, there are 7 fundamental beliefs in progressive organizations that have led to their progress, including:

1. Believe in being the best;
2. Believing in the importance to detail and doing it well;
3. Believing in the importance of every individual;
4. Believing in the high quality of the product and the services it provides;
5. Believing in the issue that most members of the organization must be innovative and therefore ready to support failure;
6. Believing in the importance of the informal state in order to increase the level of contact and communication between people;
7. Believing in the importance of economic growth and interests[6].

Organizational belief

Given the controversy between Walterstorff and John Pollock tying to present a clear picture of an ideal believer, the believer can be regarded as an epistemologistand responsible subject whose beliefs are all formed by the control of his or her understanding and shapedby deductive or deductive reasoning from finite basic beliefs[7].Simply put, a believer is someone who believes in someone or something[8].

On the other hand, organizational culture is a set of common beliefs and values that affect the thinking and behavior of members of an

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[8]. Shamruhon, John R. Hunt, James G. Osborn, Richard N. (2007). Organizational Behavior Management, translated by Mehdi Irannejad Parizi et al, Karaj: Institute of Management Research & Education, p. 81.

organization[1].These beliefs and values can also imply ideas about someone or something, or even the way of people judge on how to do the work that sometimes may not even correspond to reality[2] or scientifically, there is necessarily no reasonfor their accuracy[3], or even they are a mental image of one's environment that is complemented by probable causal relationships[4].By formal definition, the organization is a group of people working together for a common purpose, and because the organization is seen as a social tool through which people combine efforts and tasks[5]. Sothe organizational believer can be defined as an individual who deeply see the organization as a field of endeavor and achievement of the organizational mission and crystallizes the goals of the organization as an inner feeling.In this case, the behavior and organizational relationships of such a person are defined accordingly[6].Better to say, beliefs form the cultural core of an organization, they are perceived asreality by members of the organization and stronglyaffect how the members perceive, think, and feel, in addition to being largely outside the conventional consciousness and self-consciousness of

individuals[7].For Argyris, assumptions teach members of the group how to understand, think about and feel about objects[8]. So both beliefs andtheir value influence the final choice of individuals that results in a particular decision[9].Accordingly, a believer employee is someone who believes in his or her job, believes in his or her organization, considers him/herselfidentical with it, and seeks opportunities to improve performance[10]. He / she also uses these beliefs as the basic concepts and underlying system of much of the decision-making process[11].

In general, an organizational believer is a person whose pattern of intrinsic motivation is based on a combination of faith in the health, legitimacy and accountability of the organization, and on the other hand, the mere acceptance of the goals, missions and ideals outlined by of the organization's top executives and strives to ensure the spiritual survival of the organization by correcting its shortcomings[12].Such a person is always ready to sacrifice his / her interests and resources to the organization and its goals, to organize himself / herself to fulfill these missions, to share responsibilities and jobs and to adopt a set

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of rules to communicate internally and to face the environment[1]. Reflecting this individual belief in measuring organizational performance will have implications for productive, effective, efficient, and innovative work[2].

In his book titled "Changing the Essence: The Art of Creating and Leading Fundamental Change on Organizations"[3], Richard Beckhard (1969) discusses the basic assumptions or essential beliefs of the organization that should always be considered by senior managers of the organization, and writes:

1. Groups (teams) or members of groups are the main components of an organization. Organizations leading in change must support this common assumption.
2. Reducing unhealthy competition between organizational departments and developing beliefs and a climate of cooperation based on mutual trust should always be an essential goal of the organization.
3. In a healthy organization, there must be a belief that decisions should be made at the best place, that is, where information resources are available, rather than focusing on a particular role or level in the hierarchy.
4. Organizations, their subdivisions, and each person in the organization must continually manage things to accomplish their goals. Organizational controls are temporary measures and should not be the

considered as the basis of management strategies.
5. Developing open communication, and mutual trust between levels and within organizational levels are among the goals of a healthy and believer organization.
6. People need to support what helps them. Therefore, people affected by the results and consequences of change should be given the opportunity to participate actively in the change process and believe that they are involved in change planning and management.

Reliability

Reliability is the degree of agreement between two independent and separate measures of one thing, usually measured as a coefficient of correlation between the two (reliability is the degree of correlation between the results of two measurementsperformed independently and separately on the subjects).The error rate can be detected using reliability. In reliability, a measurement tool or test is expressed by the correlation coefficient.The positive or negative sign of this coefficient indicates the correlation direction suggesting the value that varies between 1 and 0. The higher the correlation coefficient, the lower the measurement error and the greater the accuracy of the results.

Bartlett's test, Cronbach's alpha and KMO index

In this study, test-retest method, Cronbach's alpha statistic and Bartlett's test were used to assess the questionnaire validity. The reliability coefficients of these two methods range from zero to +1. If there was a low correlation between the questions, the validity was also low.For this purpose, questionnaires were designed according to the experience of similar studies[4] and other

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studies.After making necessary correction questionnaires were distributed and collected this phase, data were preliminarily analyzed us SPSS software. Prior to using exploratory fac analysis (EFA) method, the adequacy of sam size must be assured of factor analysis, as sam size is an important factor in the accuracy element clustering with factor anal technique.One of the methods used to test sample size adequacy for factor analysis is Kaiser-Meyer-Olkin Measure of samp adequacy (KMO), which indicates whether data is adequate for EFA calculations.KMO va must be greater than 0.5. If the KMO value greater than 0.9, it is excellent and if it is sma than 0.5, it is not acceptable. This index is deri from the following equation.

$$KMO = \frac{\sum\sum r^2{ij}}{\sum\sum r^2{ij} + \sum\sum a^2{ij}}$$

In this study, the value of KMO index was 0.868 (Table 1). Because the value was close to 1, the sample size (in this example, the number of respondents) was adequate for factor analysis.After ensuring the adequacy of sample size, theSig. value of Bartlett's test was calculated to be 0.000 indicating that the tool was suitable because it is less than 0.05%.Cronbach's alpha was then 0.960% for the first phase questionnaire and 0.961% for the second phase questionnaire. The questionnaire was valid because the alpha test value of the researcher-made questionnaire was much higher than 0.000.To investigate the accuracy of the tool, using the assumption of increasing Cronbach's alpha in case of deleting any item, it was observed that by deleting any item, Cronbach's alpha did not increase. This indicated the validity of the questionnaire.

Table 1. Bartlett's test, Cronbach's alpha and KMO index

The summary processing				
Processing	Number	Percent		
Total questionnaires	220	100.0	Cronbach's alpha coefficient	0.961
Questionnaires deleted	0	0		
Total variables	25	100.0		
Missed variables	0	0		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.				0.868
Bartlett's test of sphericity	Approx. Chi-Square			1126.20
	df			300
	Sig.			0.000

Factor analysis

It is a general name for some multivariate techniques whose primary purpose is to summarize data. This technique investigates the intrinsic correlations of a large number of variables and finally classifies and explains them in the form of finite general factors.In this technique, all variables are considered as dependent ones. Factor analysis is divided into two types of exploratory and confirmatory depending on the researcher's purpose of using it.

In confirmatory factor analysis (CFA), the researcher tries to develop a model that is assumed to explain, describe, explain, or justify empirical data based on relatively few parameters.This model is based on pre-empirical information on data structure that can be in the form of a theory or hypothesis, a definite classification scheme for items in accordance with the objective features of the form and content, known empirical conditions or knowledge from previous studies of large data sets. Confirmatory techniques (hypothesis testing) determine whether the data are consistent with a given factor structure (predicted in the hypothesis).

In exploratory analysis, the researcher attempts to examine empirical data in order to detect and identify indices and the relationships between them. In this case, there is already no definite model in the researcher's mind.In other words, in addition to having the search or suggestion values, exploratory analysis can be a construct developer, a model developer, or a hypothesis developer.Exploratory analysis is used when the researcher has no sufficient pre-empirical evidence to develop a hypothesis on the number of factors underlying the data and tends to query the data on the number or nature of the factors that justify the covariance between variables. As a result, exploratory analysis is seen as a method of theory development rather than a method of theory testing.

Exploratory analysis is also used for cases where the purpose is to find latent variables or constructs of a set of measured variables. The common factor analysis method (or principal factor analysis (PFA)) using the correlation matrix or covariance of the measured variables is used for this purpose.In theory, latent variables or constructs are the underlying causes of the measured variables. The regression of the measured variables on the latent variables provides weights called factor loadings.Common factor analysis divides the variance of each measured variable into two categories of common variance and specific variance. Common variance represents the variations that are common between the measured variables and the latent variables.Therefore, EFA method seems to be appropriate for validating and detectinglatent variables and also for calculating factor loadings of organizational beliefs questionnaire. The following steps are required to perform factor analysis in the studies.

Initial and extraction communalities

The factors communalities before and after the extraction can be seen in Table 2. The first column shows the value of communalities before extraction, so all initial communalities were equal to 1.In the second column, the greater the extraction communality, the extracted factors represented the variables better. If any of the extraction communality values were too small (less than 0.5), they had to be deleted. Another factor might also be needed after the extraction wasremoved. In this study, the values of extraction communalities of each variable were not less than 0.5, so no factors were added or removed.It is worth noting that various claims have been made on the ratio of subjects to the number of variables ranging from a maximum ratio of 5: 1 to a minimum ratio of 2: 1[1]. In the present tool, the ratio of 220 questionnaires to 25 variables was used.

Table 2. Initial and extraction communalities

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[1]. Klein, Paul: An Easy Guide to Factor Analysis (2013). Translated by Seyed Jalal Sadr al-Sadat and Asghar Minai, Tehran: The Organization for Researching and Composing University Textbooks in the Humanities (SAMT).

Extraction	Initial	Item	question number
.775	1.000	Realistic organizational ideals and perspectives	q1
.810	1.000	Originality of organizational goals and missions	q2
.894	1.000	Capabilities and competencies of managers	q3
.816	1.000	Decision-making in line with goals	q4
.818	1.000	Nurturing worthy people in the organization	q5
.804	1.000	Justice and fairness in the organization	q6
.625	1.000	Importance of rules and regulations in the organization	q7
.632	1.000	Importance of knowledge and expertise of staff	q8
.717	1.000	Consistency of organizational goals with social realities	q9
.812	1.000	Safe and healthy organizational climate	q10
.619	1.000	Coordination of organizational sub-units	q11
.772	1.000	Honesty and integrity in the organization	q12
.810	1.000	Organizational interest in employee engagement	q13
.813	1.000	Efficient management of human resources and organizational capital	q14
.816	1.000	Rule of law in the organization	q15
.744	1.000	Usefulness of organization for society and people	q16
.773	1.000	Paying attention to social responsibilities in the organization	q17
.792	1.000	Organizational emphasis on customer satisfaction	q18
.847	1.000	Open and intimate organizational relationships with clients	q19
.818	1.000	Observing the human dignity of the workforce in the organization	q20
.586	1.000	Organization knowledge of customer expectations	q21
.830	1.000	Organizational reputation among people and citizens	q22
.748	1.000	Organization knowledge of its weaknesses and deficiencies	q23
.761	1.000	Organization insistence on correcting and improving its weaknesses	q24
.757	1.000	Effective management style in the organization	q25

Total variance explained

The output of total variance explained consists of three parts, which can be seen in Table (3).

The first part corresponded to the Initial Eigenvalues, determining the factors whose eigenvalues were greater than or equal to 1 and remained in the analysis.Factors with an eigenvalue greater than 1 were excluded from the analysis. The factors excluded from the analysis were those whose presence would not explain the variance further.

The second partcorrespondedto the extraction sums of squared loadings.

The third part correspondedto therotation sums of squared loadings. In this model, factors 1 to 4 had eigenvalues greater than or equal to 1 and remained in the analysis. These six factors together explainedabout 76.751% of the variance of variables.

Table 3. Total variance explained

Compon ent	Initial Eigenvalues			Extraction Sums of Squared			Rotation Sums of Squared		
	Total	% of	Cumulativ	Total	% of	Cumulative	Total	% of	Cumulati
1	13.20	52.81	52.811	13.20	52.811	52.811	4.270	17.079	17.079
2	1.970	7.879	60.691	1.970	7.879	60.691	3.720	14.882	31.961
3	1.287	5.147	65.838	1.287	5.147	65.838	3.702	14.806	46.767
4	1.028	4.110	69.948	1.028	4.110	69.948	3.044	12.177	58.944
5	.924	3.696	73.644	.924	3.696	73.644	2.684	10.736	69.680
6	.777	3.107	76.751	.777	3.107	76.751	1.768	7.071	76.751
7	.758	3.031	79.782						
8	.674	2.695	82.477						
9	.605	2.422	84.899						
10	.511	2.045	86.944						
11	.479	1.917	88.861						
12	.455	1.819	90.680						
13	.422	1.689	92.369						
14	.314	1.255	93.624						
15	.286	1.144	94.767						
16	.251	1.002	95.770						
17	.226	.905	96.675						
18	.168	.670	97.345						
19	.154	.616	97.962						
20	.137	.546	98.508						
21	.108	.431	98.939						
22	.091	.363	99.302						
23	.061	.246	99.548						
24	.060	.240	99.788						
25	.053	.212	100.000						

Scree plot

The Scree Plot is used to illustrate the importance of extracted factors. This plot is the graphic image of the eigenvalue of each extracted factor.The value of variance explained (eigenvalue) decreased after extracting the sixth factor. The eigenvalues of the first to sixth factors were greater than or equal to 1 and therefore remain in the output. The results of the tool are shown in Fig. 1.
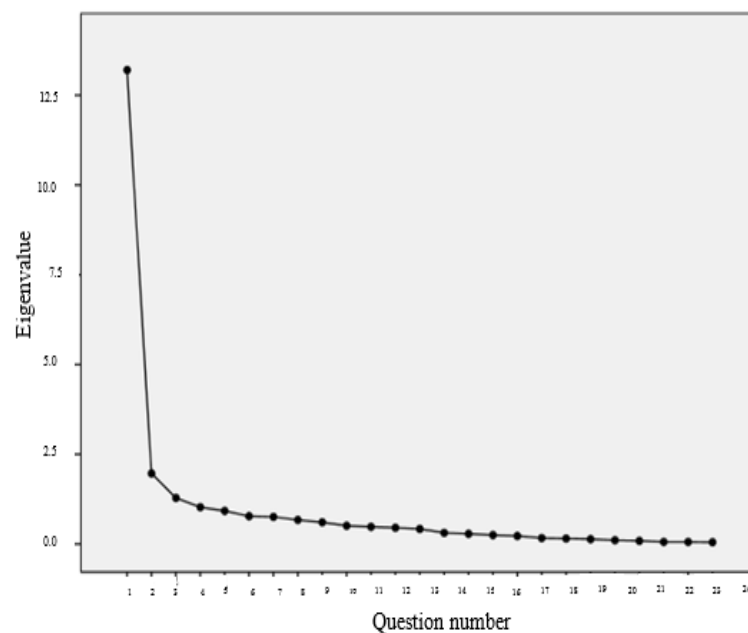
Figure 1. Scree plot

Component matrix

Un-rotated components or factors can be represented using the component matrix. These factors include the

factor loadings (factor scores) of each of the variables in the remaining 6 factors. Table 4 shows the results of the tool.

Table 4. Component Matrix

question number	Items	Component 1	component 2	component 3	component 4	component 5	component 6
q1	Realistic organizational ideals and	.663	.418	.370	-.140	-.025	.058
q2	Originality of organizational goals	.601	.554	.270	.149	-.205	.066
q3	Capabilities and competencies of	.781	-.174	-.075	-.181	-.393	.246
q4	Decision-making in line with goals	.771	-.261	-.031	.180	-.341	-.059
q5	Nurturing worthy people in the	.735	-.347	.125	-.309	.009	-.214
q6	Justice and fairness in the	.747	-.099	-.005	-.246	.187	-.374
q7	Importance of rules and regulations	.677	.268	-.018	.291	.084	.054
q8	Importance of knowledge and	.674	-.270	-.176	.018	-.248	-.105
q9	Consistency of organizational goals	.666	.417	.190	-.014	-.019	-.249
q10	Safe and healthy organizational	.762	-.070	-.387	.203	.183	-.051
q11	Coordination of organizational sub-	.719	.107	.048	.240	.173	.019
q12	Honesty and integrity in the	.727	-.209	-.351	.234	-.126	-.077
q13	Organizational interest in employee	.826	-.214	.046	.230	-.085	-.140
q14	Efficient management of human	.867	-.226	.051	-.008	-.018	.083
q15	Rule of law in the organization	.742	.030	-.261	.333	.239	.171
q16	Usefulness of organization for	.585	.561	-.247	.045	-.151	.035
q17	Paying attention to social	.763	.335	-.202	-.194	-.008	-.027
q18	Organizational emphasis on	.682	.212	-.320	-.342	.242	-.066
q19	Open and intimate organizational	.814	.129	-.138	-.285	.168	.199
q20	Observing the human dignity of the	.828	-.263	.030	-.140	.205	.007
q21	Organization knowledge of customer	.724	.213	.112	-.046	-.021	.027
q22	Organizational reputation among	.560	-.324	.311	.072	.378	.407
q23	Organization knowledge of its	.694	-.094	.472	.150	.042	-.103
q24	Organization insistence on correcting	.777	-.197	.289	.078	-.009	-.170
q25	Effective management style in the organization	.684	-.166	.022	-.263	-.256	.355

Rotated components matrix

Interpretation of un-rotated factor loadings is not simple. Therefore factors are rotated to increase their interpretability.The matrix shown in Table 5

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contains the factor loadings of each variable on the remaining 6 factors after rotation. By increasing the absolute value of these coefficients, the relevant factor played a greater role in the total variance of the desired variable

Table 4. Rotated component Matrix

Question number	Item	Components					
		1	2	3	4	5	6
q1	Realistic organizational ideals and perspectives	.755	.252	-.044	.185	.233	.226
q2	Originality of organizational goals and missions	.865	.093	.145	.168	.013	.063
q3	Capabilities and competencies of managers	.252	.248	.251	.804	.210	.122
q4	Decision-making in line with goals	.225	.472	.490	.549	-.023	.033
q5	Nurturing worthy people in the organization	.071	.703	.107	.385	.362	.169
q6	Justice and fairness in the organization	.196	.651	.225	.118	.523	.064
q7	Importance of rules and regulations in the organization	.542	.134	.496	.077	.148	.201
q8	Importance of knowledge and expertise of staff	.083	.415	.429	.492	.157	-.040
q9	Consistency of organizational goals with social realities	.699	.370	.155	.030	.257	-.023
q10	Safe and healthy organizational climate	.154	.242	.731	.168	.386	.136
q11	Coordination of organizational sub-units	.437	.278	.471	.076	.176	.303
q12	Honesty and integrity in the organization	.100	.308	.701	.380	.176	-.010
q13	Organizational interest in employee engagement	.275	.563	.530	.326	.057	.165
q14	Efficient management of human resources and organizational capital	.250	.463	.385	.469	.237	.335
q15	Rule of law in the organization	.281	.089	.725	.137	.265	.338
q16	Usefulness of organization for society and	.654	-.104	.361	.194	.336	-.155
q17	Paying attention to social responsibilities in the organization	.520	.155	.298	.278	.559	-.014
q18	Organizational emphasis on customer	.281	.164	.265	.154	.768	.052
q19	Open and intimate organizational relationships with customers	.369	.158	.255	.363	.628	.308
q20	Observing the human dignity of the workforce in the organization	.139	.517	.318	.322	.414	.393
q21	Organization knowledge of customer	.542	.274	.215	.256	.272	.176
q22	Organizational reputation among people and	.073	.264	.190	.198	.086	.820
q23	Organization knowledge of its weaknesses and deficiencies	.429	.613	.175	.145	-.053	.366
q24	Organization insistence on correcting and improving its weaknesses	.320	.667	.276	.255	.069	.261
q25	Effective management style in the organization	.216	.178	.105	.731	.240	.274

Sequential rotated component matrix

After detecting the factor loadings of each variable using the PCA technique, a large number of correlated variables were transformed into a smaller set of non-correlated variables called the component. Accordingly, the components were categorized using the highest factor loadings of each variable. However, according to the researcher's understanding of the field of study, it seemed that the items "importance of rules and regulations in the organization" (Question 7) and

"Paying attention to social responsibilities in the organization" (Question 17) were not classified in the right component. So each variable was redefined in the right component. The variables sorted by components and corrections can be seen in Table 6.

Table 6. Rotated component matrix (sorted by component)

Question number	Item	Components					
		1	2	3	4	5	6
q1	Realistic organizational ideals and	.755	.252	-.044	.185	.233	.226
q2	Originality of organizational goals and	.865	.093	.145	.168	.013	.063
q9	Consistency of organizational goals with social realities	.699	.370	.155	.030	.257	-.023
q16	Usefulness of organization for society and	.654	-.104	.361	.194	.336	-.155
q21	Organization knowledge of customer	.542	.274	.215	.256	.272	.176
q5	Nurturing worthy people in the	.071	.703	.107	.385	.362	.169
q6	Justice and fairness in the organization	.196	.651	.225	.118	.523	.064
q13	Organizational interest in employee	.275	.563	.530	.326	.057	.165
q20	Observing the human dignity of the workforce in the organization	.139	.517	.318	.322	.414	.393
q23	Organization knowledge of its weaknesses and deficiencies	.429	.613	.175	.145	-.053	.366
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q7	Importance of rules and regulations in the organization	.542	.134	.496	.077	.148	.201
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q11	Coordination of organizational sub-units	.437	.278	.471	.076	.176	.303
q12	Honesty and integrity in the organization	.100	.308	.701	.380	.176	-.010
q15	Rule of law in the organization	.281	.089	.725	.137	.265	.338
q3	Capabilities and competencies of managers	.252	.248	.251	.804	.210	.122
q4	Decision-making in line with goals	.225	.472	.490	.549	-.023	.033
q8	Importance of knowledge and expertise of	.083	.415	.429	.492	.157	-.040
q14	Efficient management of human resources and organizational capital	.250	.463	.385	.469	.237	.335
q25	Effective management style in the	.216	.178	.105	.731	.240	.274
q18	Organizational emphasis on customer	.281	.164	.265	.154	.768	.052
q19	Open and intimate organizational relationships with customers	.369	.158	.255	.363	.628	.308
q17	Paying attention to social responsibilities in the organization	.520	.155	.298	.278	.559	-.014
q22	Organizational reputation among people	.073	.264	.190	.198	.086	.820

Believable organizational levels and indicators

After sorting the items, an indicator was defined for each group of similar items.Thus, goals and

prospects, service-orientation, nurturing worthy people, personnel strategies, corrective programs, rules and regulations, organizational health, organizational capabilities, social responsibility, customer satisfaction and organizational excellencewere identified as indicators of organizational belief. Then,these indicators were grouped into three dimensions: macro-organizational beliefs, structural beliefs, and social beliefs.

Moreover, the factor loading of each item and indicator was determined using AMOS software.

Summary of the factor loadings of the items in are given the table above and the factor loadings of the indicators in Figure 2.The strength of the relationship between the latent and the observed variables is shown by factor loading that is between 0 and 1. The relationship is considered weak and is ignored if the factor loading is less than 0.3.Factor loading is acceptable if it is between 0.3 and 0.6 and desirable if it is greater than 0.6 (Klein, 1994).

Figure 2. Factor loadings of questions and indicators of organizational beliefs derived from AMOS

Table 7. Dimensions, indicators and factor loadings of beliefs items

Items factor loadings	Items	Indicators (from Spss)	Dimensions	Concept
0.63	Realistic organizational ideals and perspectives	Goals and prospects	Macro-organizational beliefs	Organizational beliefs
0.56	Originality of organizational goals and missions			
0.62	Consistency of organizational goals with social realities			
0.54	Usefulness of organization for society and people	Service-orientation		
0.68	Organization knowledge of customer expectations			
0.74	Nurturing worthy people in the organization	Nurturing worthy people	Structural beliefs	
0.84	Organization knowledge of its weaknesses and deficiencies			
0.83	Organizational interest in employee engagement	Personnel strategies		
0.74	Observing the human dignity of the workforce in the organization			
0.68	Justice and fairness in the organization	Corrective programs		
0.78	Organization insistence on correcting and improving its weaknesses			
0.64	Importance of rules and regulations in the organization	Rules and regulations		
0.7	Coordination of organizational sub-units			
0.72	Rule of law in the organization			
0.75	Safe and healthy organizational climate			

0.72	Honesty and integrity in the organization	Organizational health		
0.78	Capabilities and competencies of managers	Organizational capabilities		
0.78	Decision-making in line with goals			
0.68	Effective management style in the organization			
0.68	Importance of knowledge and expertise of staff	Organizational excellence		
0.88	Efficient management of human resources and organizational capital			
0.66	Organizational emphasis on customer satisfaction	Customer satisfaction	Social beliefs	
0.8	Open and intimate organizational relationships with customers			
0.73	Paying attention to social responsibilities in the organization	Social responsibility		
0.56	Organizational reputation among people and citizens			

Descriptive statistics

In this study, a 25-item organizational belief questionnaire was validated by EFA technique.Then, it was assured that the items were standard using the descriptive summary table, the scatter plot and the normal quantile-quantile(QQ) plot. Summary of these reviews are presented in Table 8 and Figures 3 and 4.

Table 8. Summary of descriptive statistics

Standard deviation	Mean	Question	Question number
.97658	2.8333	Realistic organizational ideals and perspectives	q1
.92444	3.1852	Originality of organizational goals and missions	q2
1.02724	2.9815	Capabilities and competencies of managers	q3
.88347	2.8147	Decision-making in line with goals	q4
1.04379	2.3889	Nurturing worthy people in the organization	q5
1.11250	2.6111	Justice and fairness in the organization	q6

.82817	3.5927	Importance of rules and regulations in the organization	q7
1.11665	2.8889	Importance of knowledge and expertise of staff	q8
.91998	2.9259	Consistency of organizational goals with social	q9
1.05539	3.1853	Safe and healthy organizational climate	q10
.92221	3.0371	Coordination of organizational sub-units	q11
.98270	3.1852	Honesty and integrity in the organization	q12
1.10492	3.0370	Organizational interest in employee engagement	q13
1.06574	2.7778	Efficient management of human resources and organizational capital	q14
.94807	3.0926	Rule of law in the organization	q15
1.10492	3.0371	Usefulness of organization for society and people	q16
.91043	2.7964	Paying attention to social responsibilities in the organization	q17
.81250	3.3148	Organizational emphasis on customer satisfaction	q18
.91118	3.2778	Open and intimate organizational relationships with	q19
1.12156	3.0370	Observing the human dignity of the workforce in the	q20
.93789	3.1667	Organization knowledge of customer expectations	q21
.94372	3.1296	Organizational reputation among people and citizens	q22
.85024	2.5926	Organization knowledge of its weaknesses and	q23
1.05100	2.6852	Organization insistence on correcting and improving its weaknesses	q24
1.24226	2.8889	Effective management style in the organization	q25

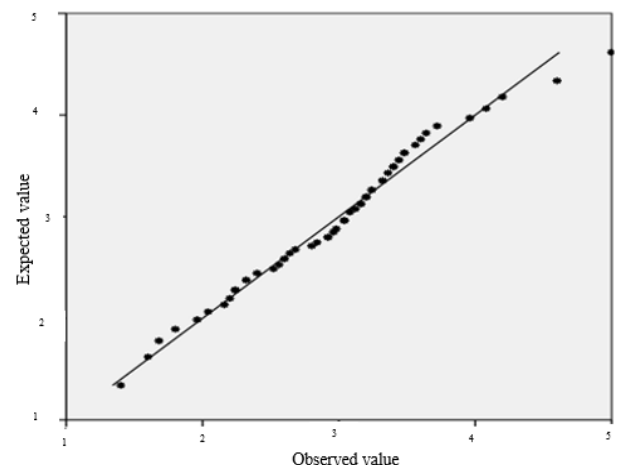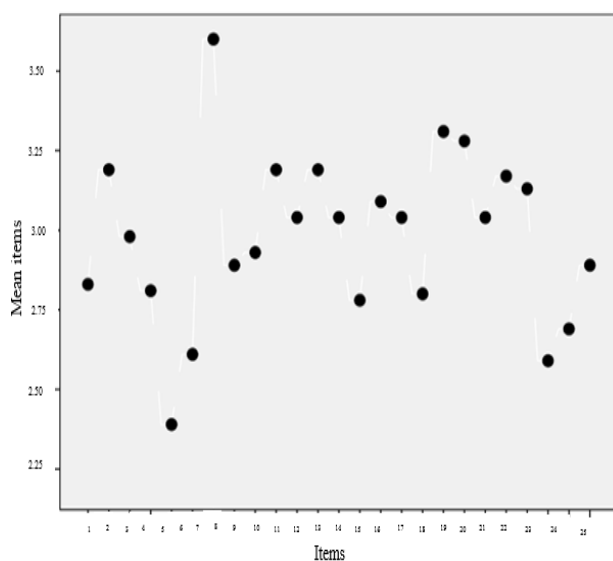Figure 3. Scatter plot (Mean items)

Figure 4. Normal QQ Plot

Conclusion

Regarding the process of designing Organizational Beliefs Questionnaire (OBQ), it was concluded that the use of theoretical foundations and

backgrounds of studies and considering the requirements governmentagencies led the researchers towards the design of an efficient tool.However, a more detailed questionnaire can be designed for any organization by studying its characteristics and requirements. Since the questionnaire was administrated in several other organizations and its validity and reliability was confirmed by the results of validity and reliability tests, it was considered as a reliable tool in measuring organizational beliefs of employees. So researchers are recommended to consider the questionnaire in measuring the organizational beliefs of employees and use it by making some changes.

On the other hand, the questionnaire questions were integrated based on the results of factor analysis test and the belief questionnaire in

Appendix 1, as seen in Table 9, because the use of designed questionnaire requires the knowledge of data analysis method. This integration was done using SPSS and AMOS software. As a result, indicators, dimensions, and levels of the main variables were obtained. For example, by integrating questions 1, 2, and 9, goals, and prospects were measured, and by integrating questions 16 and 21, the organizational service-orientation was measured. Then, by integrating these two indicators, the organizational goals and services were examined. According to surveys, the integration of these two indicators reflects employees 'beliefs in macro-organizational goals and the quality of service, which in general indicates the degree of severity or weakness of employees' beliefs at the level of the macro-organizational beliefs.

Table 9. Levels, dimensions, indicators and questions to assess employees' organizational belief

Concept	Levels	Dimensions	Indicators	Items
Organizational beliefs	Macro-organizational beliefs	Goals and services	Goals and Prospects	1/2/2009
			Service-orientation	16-21
	Organizational structural beliefs	Personnel strategies	Personnel strategies	13-Jun
			Nurturing worthy people	20-May
			Corrective programs	23-24
			Organizational health	12-Oct
		Health and rules	Rules and regulations	7/11/2015
		Capabilities and excellence	Capabilities	3/4/2025
			Excellence	14-Aug
	Organizational social beliefs	Customer-orientation	Customer satisfaction	18-19
		Social responsibility	Society-orientation	17-22

Five-point Likert scale was used in this questionnaire. This spectrum was coded as 1 = very low, 2 = low, 3 = moderate, 4 = high, and 5 = very high. When the mean command is used in SPSS software, if the mean is less than 3, it indicates unbelief or low belief of the employees and if it is more than 3 and tends to 5, it indicates the belief in the desired factor or variable.It is obvious that along with the analysis of individual

factors and variables, all variables can be integrated. In this case, the level of overall organizational belief of employees will be achieved.

To analyze the beliefs more accurately, it is recommended that some influential variables such as demographic variables be added to the questionnaire.These can include variables such as

gender, age, marital status, number of children, education level, type of employment, work experience, experience in the current post, organizational level, average monthly salary, average monthly cost, and assumptions about proposed fair rights.In addition, a column titled "percentage of importance of the subject" can be added to the questionnaire to determine the significance of each of the sub-factors and the main variables from the employee's perspective.If this is done, appropriate analytical indicators can be provided for the questionnaire analysis.In other words, by doing so, both the type and level of organizational belief or unbelief of employees can be measures and the weight of each of the factors and variables affecting them can be obtained.Obviously, by integrating the results of both scenarios, new analytical indicators can be presented and used to provide effective solutions to improve the level of employees' organizational belief. Some of these indicators are:

1. Ranking the percentage of desirabilityof each of the questions, sub-factors and key variables for employees that reflects the intensity of beliefs about the status quo.
2. Ranking the percentage of importance of each of the questions, sub-factors and key variables for employees that reflects the weight of each of themin the formation of beliefs.
3. The organizational belief status of each employee will be determined by calculating the difference between the organizational belief level of each employee and the mean organizational beliefs.
4. The importance of the factors will be obtained by calculating the difference

between the importance of each factor from the perspective of the employees and the overall mean.
5. When the third and fourth indicators are integrated, a fifth indicator will be obtained which will consist of 4 scenariosthe results of which can be used byresearchers for further analysis. These are:

Scenario 1: Both the third and fourth indicators are positive,

Scenario 2: The third indicator is positive and the fourth is negative,

Scenario 3: The third indicator is negative and the fourth is positive,

Scenario 4: Both the third and fourth indicators are negative.

It should be noted that the overview of organizational beliefs, the powerful interfering factors, and the impact of each of them on the overall level of organizational beliefs of employees will be identified by analyzing the collected questionnaires and the fifth indicator.

Appendix A (questionnaire)

Dear Respondent, Greetings and regards,

Thank you for the precious time you will spend completing this questionnaire and helping us with the research.

An attempt is made to measure the level of your organizational beliefs in the following statements. Please read each of the following statements carefully and determine to what extent you are ready to defend your organization performance in each of the following items.

Very high	High	Moderate	Low	Very low	Item	Item number
5	4	3	2	1		
					Realistic organizational ideals and perspectives	1
					Originality of organizational goals and missions	2

					Capabilities and competencies of managers	3
					Decision-making in line with goals	4
					Nurturing worthy people in the organization	5
					Justice and fairness in the organization	6
					Importance of rules and regulations in the organization	7
					Importance of knowledge and expertise of staff	8
					Consistency of organizational goals with social realities	9
					Safe and healthy organizational climate	10
					Coordination of organizational sub-units	11
					Honesty and integrity in the organization	12
					Organizational interest in employee engagement	13
					Efficient management of human resources and organizational capital	14
					Rule of law in the organization	15
					Usefulness of organization for society and people	16
					Paying attention to social responsibilities in the organization	17
					Organizational emphasis on customer satisfaction	18
					Open and intimate organizational relationships with clients	19
					Observing the human dignity of the workforce in the organization	20
					Organization knowledge of customer expectations	21
					Organizational reputation among people and citizens	22
					Organization knowledge of its weaknesses and deficiencies	23
					Organization insistence on correcting and improving its weaknesses	24
					Effective management style in the organization	25