



# The Relationship between Organizational Structure and Knowledge Distribution Methods

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#### ABSTRACT

The purpose of this study was set the most appropriate organizational structures which can be effective in applying of knowledge distribution methods and also to identify relationship each of knowledge distribution methods about the five structure types according to Mintzberg. Logical reasons for doing this research so that if employees can have more comfortable contact together and there is the verbal balance between them, causes knowledge sharing within organizations to be more efficient which is requires an appropriate organizational structure to realize this goal. Between organizational structure (dimensions of structure) and face to face communication in social networks through is administrate with three ways of knowledge distribution, including problem-solving groups, teams, meetings with senior managers and middle management with employees found positive relationship that in result common meetings between employees and senior managers or middle managers have showed with most relationship with the bureaucracy structure (mechanical and professional) and The formation of problem-solving groups and non-bureaucratic structure (simple structures - Adhocracy - matrix and project).

**KEYWORDS:** Structure Dimensions - Face To Face Communication - Knowledge Sharing and Structure of Professional Bureaucracy and Adhocracy - Knowledge and Technical Systems.

#### 1. INTRODUCTION

To effectively manage of knowledge flow is important for organizations that wants to gain competitive advantage (dierickx and cool, 1989; collins and clark ,200).

Face to face relationship is created when adjacent people are engaged in two-way verbal information exchange. This such as other communication mechanisms is caused knowledge exchange of employees in organization. However it is expected that knowledge exchange by face to face communication is more effective in comparison with other tools of information sharing. In fact it is important that to know face to face interact of the people in organizations be coordinate with which type of organizational structures and has most relationship with knowledge distribution. Because with determine the type of managers and experts, into the structure of knowledge in organizations can redesign the desired sections corresponding to methods of knowledge distribution so is created proportional structure with knowledge distribution in organizations. On the other hand widely is discussed that face to face communication might lead to knowledge sharing of tacit knowledge to explicit knowledge. Thus in this study been investigated the relationship between three methods of knowledge distributing (form of tacit) and through this methods has become explicit knowledge and be distributed among employees with type of organizational structures because be certain which of methods with what types of structures the following have the most relationship.

These structures include:

- 1 Mechanical bureaucracy Structure
- 2- Professional bureaucracy Structure
- 3 Simple Structure
- 4- Adhocracy Structure
- 5- Matrix Structure
- 6- Project Structure (Mintzberg Robbins and Daft rinsing well organization theory and design)

And structural variables are:

- 1 The size of the structure that is determined with two measure of large and small workload in the organization.
- 2- Structural dimensions include (formalization complexity and concentration).
- 3- Knowledge and technical systems that are divided two types of simple and complex (human resources and human capital, simplicity or complexity of technical knowledge indicators and use of traditional technology and advanced are technical systems criteria respectively.
- 4- The external environment that includes two static and dynamic environments and internal environment consists of simple or complex type of knowledge and technical system being used in the organization.
- 5- Coordination mechanisms:

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- 5-1- standardize tasks or work processes.
- 5-2- standardize of tasks, skills or expertise.
- 5-3- Direct supervision
- 5-4- Encounter compatibility

Distribution methods or by sharing knowledge include:

- 1 Formation of the problem-solving groups
- 2- Formation of teams
- 3- Common meetings between senior or middle managers with employees

## 2. LITERATURE REVIEW

## 2.1. Research Management

Knowledge research management is applied field that pays to identify, select, organize purification and classified of organization necessary information such that improves employees' performance and organization competitive advantage. Protection and classified organization knowledge is vital especially in today's world, because labor force "service oriented" is composed "knowledge users", organizations for compete successfully in today's economy had behave with knowledge like other strategic capital and non- alternative help to their central competencies (Ibid)

## 2.2. Knowledge management processes

#### 2.2.1 Knowledge Identify

It means that describes and analyze organization knowledge environment. Now surprisingly large number of organizations has problems providing an overall picture of the skills, information and internal and external data. This lack of transparency leads to duplication and inefficiency informal decisions. So knowledge effectiveness management should ensure enough transparent of internal and external and it help to employees for meet their needs (Proset & et al, 2006:25).

## 2.2.2. Knowledge acquisition

Organizations are gained an important part of their knowledge from external sources. Relationships with customers, suppliers, competitors and partners in a collective actions has beneficial capacity in providing knowledge, capacity that is rarely fully exploited. Organization can buy knowledge what are not able to develop it from other organization or experts (Ibid).

# 2.2.3. Knowledge development

It is the fundamental element that will complete knowledge acquisition. In addition, it focused on skills and new products, better ideas and effective work processes. Knowledge development is contain all of management efforts that consciously focus on production capabilities and still have not provided within the organization or even still do not exist within or outside (Ibid).

## 2.2.4. Knowledge sharing and distribution

It is necessary condition for the transfer of information and separate business that the whole organization can use it, distributing and sharing knowledge within the organization. The most important step in this analysis is transfer knowledge from person to other organization groups. Knowledge distribution is process of knowledge sharing and expanding that currently runs within the organization (Ibid).

# 2.2.5. Knowledge utilization

Knowledge management is trying to ensure, organization knowledge is used as beneficial in order it interest. Identification and distribution of proper knowledge does not guarantee that this knowledge will be used to daily activities of company. There are obstacles that are preventing the use of external knowledge. So steps should be taken to ensure that are being fully utilized valuable skills and knowledge assets, such as patent and licenses (Ibid).

# 2.2.6. Knowledge retention

Capabilities learned in the past are not available at all times and automatically. Selective retention of information documents and business has need to management. Organizations often complained that reorganization expense of loss a part of memory (knowledge). Then selective process, storage and regular updating of knowledge that has potential value for the future, should be carefully organized. If this is not done, it may simply be disposed valuable studies. Knowledge retention is depends on the effective use from wide range of storage media.

# 2.3. Knowledge sharing through face to face communication

Sources observed in the structures shows that an organization can gain high influence and dominate by combining scarce resources. Among the types of resources that an organization can be used for this purpose consist of:

Tacit knowledge of human that is available in employees. However been noted that tacit knowledge can be the basis of competitive advantage for organizations. Then what can do to effectively manage the flow of knowledge. Such thing in organizations have gained through the creation of social networks consists of people with strong relationships and bilateral communication. Increase productivity is with knowledge sharing through social networks, including available actual and potential resources. This view is available in the research tsoukas (1996) that from the organization refers as released knowledge system that knowledge is spread among people. In different individuals are embedded and to occur social interaction. It should be noted that knowledge can be shared in social networks. It can be inherently explicit or tacit. Explicit knowledge is a kind of knowledge that can be developed and easily be exchanged (Nonaka and Takeuchi, 1995). Formation of effective interactive network based on internet or telephone is an example of classification within the organization for the transfer of explicit knowledge. One-way communication methods such as the proposed program of formal evaluation in employees and disclosure of information from employees to managers and vice versa are important tools for the dissemination of explicit knowledge. Instead, tacit knowledge cannot be easily discovered and transferred because are deeply carved its carriers (Nonaka, 1991) and most people are not aware of having it. According to Michael Polanyi has proposed first time the concept of tacit knowledge (Polanyi, 1966). Tacit knowledge is considered as guidelines to achieve competitive advantage (Grant, 1993; Spender, 1993; Sobol & Lie, 1994). Due to high level of personalization, tacit knowledge can considered uniquely incompletely movable / imitative and non-alternative (Ambrosini and Bowomon, 2001). Thus tacit knowledge compared to explicit knowledge is closer to the perspective of human resource management in the company. According to research conducted by Nonaka (1991) Sternberg (1994) tacit Knowledge (hidden) is practical (ie it describes a process) and have specific principals (ie, achieve in circumstances.). So it can gain through personal trade and to done in practical conditions that involve the face to face interaction, such as networking mentoring and as it (Rebernik and Sirec, 2007). According to information provided by Takeeuchi, Nonaka (1995) personal contact is caused to enhance the exchange of tacit knowledge to tacit. Koskinen & et al (2003) consider face to face interaction as the most powerful environment for conveying knowledge. It makes possible the explicit feedback and can studied its understanding process (Koskinen et al, 2003:286). In fact it is type of interactions that isn't lead to get a false meanings compared to other models of social relations. Because knowledge is transmitted through body language, facial appearance, and tone of voice (Mehrabian, 1971). As a result of extensive writing of research conducted about knowledge management express that social networks based on physical contact employees and talk is likely to lead to reveal tacit knowledge in organizations. Therefore expected that if other things are equal, workplaces where are facilitating face to face communication among employees take advantage essentially from competitive advantage. So that they have greater productivity in compared with the workplace that haven't this method of sharing information. This proposal is very attractive from the standpoint of theory, but requires has some empirical test (Drew S.From knowledge to action: the impact of benchmarking on organizational performance. Long Range Plan 1997;30hey have (3):427-41).

## 2.4. Knowledge sharing methods and organizational structure

From an empirical point of view, this lack regarding knowledge structure with extensive use of indicators of human resource management has worsened so that does not provide possible the functional participation ways to improve of employees and information detection of other organizational processes. In order to per capita share of knowledge and separation sense from other practices and is to be clearly identified. In some studies about relationship beyond organizational and sharing information have been efforts in this issue. E.g Bryson and et al (2006) knew the relationship between mental actions and dependent on productivity of workplace and methods of verbal and sound that verbal relationship issue includes any type of the formal mechanism by which workers can transfer their views to management (Bryson et al . 2006:434).

But from the point of this paper, this study is a particular public issue that human resource management practices with the opportunity for two-way communication, such as managers and staff meetings, and group problem solving by employees except from manager have similar important with one way communication methods such as official reviewing in views of employees and proposed programs. Also a two-way communication practices such as teams are not included in voice group. Researchers Peccei and et al (2005) this case examined with relationship between mental actions of productivity and created relationship in it. Means disclosure of information are from managers to employees relating to internal investment plans and financial position. As discussed previously that these currents aren't issues with the highest potential for competitive advantage. In this paper has emphasis in face to face relationship as a tool for knowledge sharing among employees. The basic point is that in this paper knowledge sharing means the process of knowledge exchange that person is involved it that includes transmitter and receiver of knowledge. Therefore, knowledge sharing is conceptually different from knowledge transfer. We use from human resource management method that potentially is contain face to face communication that particular are problem solving groups in non-manager employees and employees teams. As human resource management practices to promote work communities can shares tacit knowledge. Senior managers and employees meetings and common committees of managers and

employees representatives are shared. With this assumption that results of face to face relationship sharing tacit knowledge isn't so realistic and range of time consumed by people with this problem-solving groups and teams will be compared and it is in low level from the human personality interaction. Finally, we consider line managers and employees meetings. According to programs in 2004 the middle managers are among the non-managerial employees who have duties include supervision of other employees because tacit knowledge can be shared more in this network compared with senior managers and employees meetings. Because working relationship created between the workers probably has a higher degree from character formation but what should be emphasized here is when such networks have a physical proximity and verbal interaction between employees, they provide better structure for the knowledge sharing. In this paper we tried to distinguish among real presence of face to face relationship between the three networks (That are called as effective methods of face to face relationship) and samples that individuals in this network don't enter face to face relationship (in this case they are said the official Monopolistic methods of face to face relationship

 $\label{eq:continuous_problem} \begin{tabular}{ll} Epple D. Argote $L$ , Murphy $K$ . An empirical investigation of the micro structure of knowledge acquisition and transfer through learning by doing. Oper Res$ 

Finally this paper is seek to determine that is there relationship between face to face relationship methods (knowledge distribution) and organizational structure (bureaucracy and non-bureaucracy) or no?

# 2.5. Knowledge Distribution and organizational learning:

- In terms of existing theories of organizational learning has two main vision: interactive perspective and information perspective
- Information perspective is consider the organization as system with the principles structure and
  procedures in separate that may be promote or hinder organizational learning in it. While other hand,
  according to interactive perspective interaction relationship between organization members is main
  point of organizational learning. Argyris proposed interactive perspective and believes that the concept
  of the organization research will lead to the creation of knowledge in organizations.
- Information/interactive perspective
- He proposed single-loop and double loop learning terms. The nature of this learning in line with generating learning and measures adaptation.
- The third type of learning is Deutero (Argyris) that members asking questions and challenging the existence identity are developed organizational knowledge in it. Organizational culture that will promote learning Deutero is need for creation of Knowledge construction companies. So the organization that uses the double-loop learning and Deutero will be called organization of Maker knowledge or learning organization. In Continued classification will be knowledge management processes.

Deutero Generative/adaptive

Author (creator)	Торіс
Headlond	knowledge acquisition -knowledge Strong -knowledge sharing/distribution -knowledge utilization -knowledge retention
Dejarnet	Construction of knowledge - drawing (visualization) knowledge - knowledge dissemination and utilization - knowledge retention and refine
Kouintas	Creation process or method - collection - possession - sharing and knowledge utilization
Demerest	Construction of knowledge - knowledge dissemination - visualization (drawing) knowledge
Letiri	Knowledge management cycle in a non-profit institutions, including the acquisition of knowledge - encoded - storage - recovery - provide and expect - use - create
Sulingen	Collecting knowledge - making knowledge - dissemination of knowledge - knowledge development - apply knowledge
Fang & Chui	Sextuple processes of knowledge management: acquisition - creation - Storage - Distribution - knowledge retention

• Background of knowledge management process shows that extensively is focused on the creation of knowledge - knowledge sharing - the promotion of knowledge - knowledge utilization.

#### 2.6. Organizational structures

Organizational structures in functional form is how to divide work or duties between employees (horizontal and vertical) - how to communications between jobs (horizontal and vertical) - The amount of concentration or lack of concentration (horizontal or vertical) - abide in organization - how job design among employees - how to organize the behavior people in the organization etc.

# 2.7. Types of organizational structures

Mintzberg, organizational structures has divided into five kinds based on utilization of bureaucracy or otherwise.

Bureaucratic structures include:

- 1- Mechanical bureaucracy
- 2- Professional bureaucracy
- 3- Independent or part bureaucracy (provincial or intermediate structures)

#### Non-bureaucratic structures

- 1- Simple structure
- 2 Adhocracy structure

In distribution of structures should be mentioned that in this study in terms of classification types of structures based on their operational section is not considered part structure and basic research can be for other researchers.

#### Organizations Mission

As we know emergence cause of many organizations is response or people's needs. Identified factors of the needs in the community are divided into two categories. Communities of big government have been a factor in law diagnosis and executor of to create governments the organizational structure but in societies where the government is small size, need factor is individual that created structures called based on environment. That is observed in forms of non-governmental sectors in such as private units - cooperatives autonomous, and so on. Therefore, organizations are made based on governments' diagnosis or based on environment. In addition to the division classification system based on the environment and the law should be acknowledged that composed units can be in two general and specialized forms. So that public units have been the structural organization that is working In order to respond to the needs of public or the majority of people in the community. Such structures are used the most from bureaucracy model and large number of them simple technical knowledge in terms of using task standard or labor process is used to organize of employees. In which case is use mechanical bureaucracy. But a number of other systems that for respond to people need in operational sector of organization have need to complex technical knowledge. For example can mention in university (training by professor) or Medical units (Use of specialists in hospital sections or Medical) and so on. Such structures have models of professional bureaucracy to project Adhocracy and are used to organize the employees or their technical knowledge.

# 2.7.1. Mechanical bureaucracy structure

This structure is analyzed based on its operational sector. In fact, utilizes simple technical knowledge is makes use of standard task and work processes in the organization and the other side existence of a static environment is caused predicting all needs of customers by the organization in their organizational duties. In staff Part, employee is organized based on standard process and task and when such organizations in the provinces are made based on client needs. They are said independent or part bureaucracy structure. Mechanical bureaucracy has very high formalization or legalism. Emphasis on being written of this legislation and to this organization is said executive departments because gives value to law enforcement more than any other factors and the same applies for many government departments is mechanical bureaucracy.

# 2.7.2. Professional bureaucracy

Professional bureaucracy has formalization such as mechanical but in term of applying expertise in operational sector has caused reduces formalization - complexity and Centralization in structure. In Professional bureaucracy is used pigeonhole principle for respond to client needs and also is used standard of expertise for organizing human resources specialists.

# 2.7.3. Simple structure

In terms of size is considered small and a temporary structure and also in terms of unskilled manpower applying in operational sector is caused reduces formalization - complexity and centralization and therefore the use of knowledge and simple technical systems was common operations sectors. It is extremely important in strategic sectors. Simple internal environment (applying knowledge and technical systems) and in terms of dynamic external environment also coordination mechanisms used in the structure is simple direct supervision.

## 2.7.4. Adhocracy structure

This type of structure is as temporary project and matrix structures. Difference of bureaucracy structure with others is include that factors shaping the bureaucracy structures are not the people or the environment and their needs but law according to identify of people need to specific services or products provided approval of such organizations and also government is implemented agent or their formation. So we can say that cause of formation of all organizations is people need but the agent or recognized agents of this need is the law and the government or the people and their environment. Then in result all sets are formed by law uses bureaucracy model to design their

structures. But contrary other sets arise according to recognized people or environment called non bureaucracy structures such as simple-structures - adhocracy or project and from features are very different as bureaucracy structures with static environment - large size and also using the standard jobs are attempting to organize workers while non-bureaucracy structure has a dynamic environment - small size and to organize the people in these structures is used mechanisms such as direct supervision and facing adaptation (Ganjinia, 2001).

Adhocracy is a temporary structure that was formed limited number of specialists with the common goal and individuals have special offers based on their expertise, but based on a post or position uses organizational authority. Examples of such structures can know in formation of a small clinic by some experts. For example, a dentist according to their expertise has providing specialized and according to their diagnosis make attempt to treat customers but he can be the financial manager in clinics in addition dental job. So in time financial budgeting has financial authority or organization in the field of finance and etc.

As it can observed in adhocracy specialist based on expertise or post has selective authority and if based on passage of time want large structure to become professional bureaucracy. Mintzberg believe that in terms of the possible difference and conflict among professionals in the long time is close and possible converted such structures to the professional bureaucracy.

## 2.7.5. Project and matrix structures

Project and matrix structures are only temporary such adhocracy. Project structures occurred based on system need and will create in line with start and done and also identified goals and are used skilled personnel and specialized in stages of implementation a project according to need and after completion of the project return again their previous positions but matrix structure are made from individuals within bureaucracy using dual. Simplify expression if in organization can used personal with skills or expertise in two separate posts, especially in two sector staff and line. In this case system uses from matrix structure within them. It was sample when is used a professor assigned to teach classes but while he may be the university administrative and financial assistant or a heart specialist that performed surgery in medical departments but in staff he is as hospital manager or deputy of human development or staffing manager. One of the obvious differences in a matrix or project structures, in project when goal realized person is used only in his previous post but in the matrix employee is used in more than one post simultaneously. So it is certain, condition the formation of structures in human capital or human resources specialist in the organization.

# 3. Research Model

Model used in this study were conceptual completely and is set based on the author's training experience and studies and try to show the structural variables (dependent variables) set in the form of a table their relationship with determine structure and then is paid their relationship with knowledge distribution methods. (Independent variables)

Dependent variables: structure of bureaucracy (Mechanical bureaucracy and professional) and non-bureaucracy (structure of simple - Adhocracy - matrix and project)

Evaluation Indicators (for structures of bureaucracy and non-bureaucracy):

1: Structure size	small activities volume	
	large activities volume	
2: environment	internal	simple
		Complex
	External	Static
		Dynamic
3: Structural dimensions	formalization	
	complexity	
	Centralization	
4: Knowledge and technical systems	simple	
	Complex	
5: Coordination mechanisms:	To standardize tasks or work processes.	
	To standardize skills or expertise.	
	Direct supervision	
	Encounter compatibility	
6: the formation of The time	Temporary structure	
	Permanent structure	

All variables that indicate the type of identified structure (Relying on the operational sector of structure) are:

#### 1 - Mechanical bureaucracy structure:

Large size - intensity formalization and centralization the complexity - the use of knowledge and simple technical systems - simple internal environment (using the knowledge and technical systems) and in terms of environment static external - task standard and job process is permanent structure.

## 2 - Professional bureaucracy structure:

Large size - reducing formalization and centralization complexity - use of knowledge and complex technical systems - complex internal environment (applying knowledge and technical systems) and in terms of external environment is static - the standard of skill and expertise - a permanent structure.

# 3- Simple structure:

Small size - temporary structure - intensity formalization and centralization - reduce complexity - the use of simple knowledge and technical systems - emphasis on the strategic parts in simple internal environment (application knowledge and technical systems) and a dynamic external environment - the coordination mechanism of the direct supervision

# 4- Adhocracy structure

Small size - temporary structure - reducing formalization and complexity centralization - use of knowledge and the complex technical systems - emphasis on the support section - internal environment complex (applying knowledge and technical systems) and a dynamic external environment - encounter adaptation coordination mechanism.

## 4- Matrix and project structure

Small size - temporary structure - reducing formalization and complexity centralization - use of knowledge and the complex technical systems, emphasis on the operational section- internal environment complex (applying knowledge and technical systems) and a dynamic external environment - coordination mechanism of task standard - skills standard or specialized and also facing adaptation.

## Independent variables:

Knowledge distribution methods including:

- The formation of problem-solving groups
- The formation of teams
- Common meetings between senior or middle managers with employees

# 4. Research Objectives

#### 4.1. Main Objective:

Meaningful measure of the relationship between knowledge distribution methods with a variety of organizational structure

# 4.2. Sub objectives:

- 1- Meaningful measure of the relationship between methods of the formation of problem-solving groups with types of organizational structures
- 2- Meaningful measure of the relationship between methods of the formation of teams with types of organizational structures
- 3- Meaningful measure of the relationship between methods of common meetings between senior or middle managers with employees with types of organizational structures

# 5. Research Main question:

Is there significant relationship between knowledge distribution methods and structural patterns (types of organization structure)?

#### 6. Research Hypotheses:

## 6.1. Main hypothesis:

There is significant relationship between knowledge distribution methods and types of organizational structures.

# 6.2. Sub hypotheses

- 1- There is significant relationship between methods of the formation of problem-solving groups with types of organizational structures.
- 2- There is significant relationship between methods of the formation of teams with types of organizational structures.
- 3- There is significant relationship between methods of common meetings between senior or middle managers with employees with types of organizational structures.

#### 7. RESEARCH METHOD

Analytical method used in this study was correlation between variables and in term of nature or purpose is applied.

#### 7.1. Statistical Society and sample

In term of the importance attention to types of patterns or organizational structures in this research has been effort that administrative machinery of government - public sector organizations and number of the private sector units used in the society.

So according to collaboration some of these units, statistical society is been formed 50 units of administration units that had mechanical bureaucracy pattern (Using standardized mechanism to task and labor process) and also 10 units academic are use based on standardized utilizing the expertise of professors in training or operational sector(Number of professors: 300) and 65 banks branch in the public sector and 12 branches from 3 private banks and 42 production unit in the food industry - protein - plastic and wood in the private sector and 4 building workshops construction projects and also five private clinics by the number from doctors specialists.

In general terms, using the organization criteria instead of human in statistical analysis is been studied the total statistical society in this study to 176 structural units.

Due to many limitations used first Morgan tables that selected 140 numbers unit in sample and then based on simple sampling method were selected 37 public system, 57 branches from public banks and 2 private branch and 38 production unit and 3 university and 3 clinic and the total 280 units were selected as sample.

#### 7.2. Questionnaire Validity

To increase the validity of questionnaire this study, first, questionnaire of each variable (knowledge distribution) and (types of organizational structure) has been prepared, (using a content validity), 30 questionnaires were distributed among the statistical society and were used views of some professors, professionals and experts.

## 7.3. Questionnaire Reliability

For estimating questionnaire reliability in this study has been used Cronbach's alpha technique. For this purpose, 30 questionnaires before the final distribution was distributed among in the statistical society and after to collect responses was used from the formula of Cronbach's alpha and because more than 70% were alpha, reliability of the questionnaires were distributed and approved

$$\frac{i}{i-1} \left[ 1 \sum_{j=1}^{\infty} -\frac{\sum_{j=1}^{\infty} \delta^{2} j}{\delta^{2}} \right] ra =$$

In this study Alpha of all variables following matching are over 70%.

variables	Cronbach's alpha
Types of organizational structure (bureaucracy and non-	%73/3
(bureaucracy	
Problem-solving groups	%84/2
Teams	%70/9
Holding meetings	%73/2
Total of Cronbach's alpha of knowledge	%89/9
distribution	

#### 8. Data analysis

For data analysis by using SPSS software or programs is used to correlation test but using Pearson or Spearman will be done then determined of obtained results to by Kolmogorov test to determine whether normal or not normal data.

# 9. Hypotheses Analysis and testing

For analysis data and test hypotheses is used from inferential statistics (Pearson correlation coefficient). It is noteworthy that according to research model independent variable is knowledge distribution method ( three knowledge distribution method including formation of problem solving Group - the creation of teams and holding common meetings between middle or senior managers with employees) and dependent variable is type of bureaucracy structures (mechanical and professional bureaucracy) and non-bureaucracy (simple structures - adhocracy - matrix and project)

# 10. Hypotheses testing

#### The main hypothesis

There is significant relationship between knowledge distribution and types of organizational structure (the structure of the bureaucracy and non-bureaucracy)

The correlation coefficient			
		Types of organizational structure	knowledge distribution
Types of organizational structu	Pearson correlation	1	%71/9
	Sig (2-tailed)		0/000
	Sample	280	280
knowledge distribution	Pearson correlation	%71/9	1
	Sig (2-tailed)	0/000	
	Sample	280	280

# Sub hypothesis

1- There is significant relationship between creation of Problem-solving groups and structures of the bureaucracy (mechanical and professional)

The correlation coefficient				
		Bureaucratic structures	H <sub>0</sub> Problem-solving groups	
Bureaucratic structures	Pearson correlation	1	%68/3	
	Sig (2-tailed)		0/000	
	Sample	280	280	
Problem-solving groups	Pearson correlation	%68/3	1	
	Sig (2-tailed)	0/000		
	Sample	280	280	

2- There is significant relationship between creation of teams and structures of the bureaucracy (mechanical and professional)

The correlation coefficient				
		Bureaucratic structures	Creation of a teams	
Bureaucratic structures	Pearson correlation	1	%59/5	
	Sig (2-tailed)		0/000	
	Sample	280	280	
Creation of a teams	Pearson correlation	%59/5	1	
	Sig (2-tailed)	0/000		
	Sample	280	280	

3- There is significant relationship between creation of common meetings between managers and employees and structures of the bureaucracy (mechanical and professional)

The correlation coefficient			
		Bureaucratic structures	Creation of Common meetings
			between managers and employees
Bureaucratic structures	Pearson correlation	1	%70/9
	Sig (2-tailed)		0/000
	Sample	280	280
Creation of Common	Pearson correlation	%70/9	1
meetings between managers	Sig (2-tailed)	0/000	
and employees	Sample	280	280

4- There is significant relationship between Problem-solving groups and Non-bureaucratic structures (structures of Simple - Adhocracy - matrix and project)

The correlation coefficient				
		Bureaucratic structures	H <sub>0</sub> Problem-solving groups	
Non-bureaucratic structures	Pearson correlation	1	%64/7	
	Sig (2-tailed)		0/002	
	Sample	280	280	
Problem-solving groups	Pearson correlation	%64/7	1	
	Sig (2-tailed)	0/002		
	Sample	280	280	

5- There is significant relationship between Creation of a teams and Non-bureaucratic structures (structures of Simple - Adhocracy - matrix and project)

The correlation coefficient				
Bureaucratic structures Creation of a teams				
Non-bureaucratic structures	Pearson correlation	1	%56/5	
	Sig (2-tailed)		0/000	
	Sample	280	280	
Creation of a teams	Pearson correlation	%56/5	1	
	Sig (2-tailed)	0/000		
	Sample	280	280	

6- There is significant relationship between creation of common meetings between managers and employees and Non-bureaucratic structures (structures of Simple - Adhocracy - matrix and project)

The correlation coefficient			
		Bureaucratic structures	Creation of Common meetings between managers and employees
Non-bureaucratic structures	Pearson correlation	1	%43/9
	Sig (2-tailed)		0/000
	Sample	280	280
Creation of Common	Pearson correlation	%43/9	1
meetings between managers	Sig (2-tailed)	0/000	
and employees	Sample	280	280

#### 11. Conclusion

# The main hypothesis

After data collection and analysis was determined that there is significant relationship between knowledge distribution and types of organizational structure. Intensity correlation was % 71/9. Coefficient of determination in this research was %51/7. Means Can predict % 51/7 the dependent variable changes. In fact whatever increase in knowledge distribution methods (problem solving group, creation of team and creation of shared meetings between managers and employees) in organization will cause significant positive impact on the formation of certain types of organizational structure. In result, there is directly significant relationship between two variables knowledge distribution and types of organizational structure.

# First sub-hypothesis

After data collection and analysis by using the correlation coefficient was determined that there is directly significant relationship between creation of problem-solving groups and structures of the bureaucracy (mechanical and professional). Intensity correlation between creation of problem-solving groups and types of organizational structure was % +68/3. Coefficient of determination in this hypothesis was %46/64. Means variable of problem-solving groups can predict %46/64 the dependent variable changes. In fact whatever increase creation of problem-solving groups in organization will cause significant positive impact on the formation of certain types of organizational structure. In result, there is significant directly relationship in organization and the formation of certain types of structures, bureaucracy (mechanical and professional).

# Second sub-hypothesis

After data collection and analysis by using the correlation coefficient was determined that there is directly significant between creation of teams and structures of the bureaucracy (mechanical and Professional). Intensity was % +59/5. Coefficient of determination in this hypothesis was %35/4. Means Variable of creation of teams %35/4 has significant positive impact on the formation of certain types of organizational structure.

## Third sub-hypothesis

After data collection and analysis by using the correlation coefficient was determined that there is directly significant relationship between creation of common meetings between managers and employees and structures of the bureaucracy (mechanical and professional). Intensity correlation between two variables was % + 70/9. Coefficient of determination in this hypothesis was % 50/26. Means Variable of Creation of Common meetings between managers and employees can predict % 50/26 the dependent variable changes. Thus whatever increase creation of shared meetings between managers in organization will cause significant positive impact on the formation of certain types of bureaucracy structures (mechanical and professional)

## Forth sub-hypothesis

After data collection and analysis by using the correlation coefficient was determined that there is directly significant relationship between problem-solving groups and non-bureaucratic structures (structures of simple - adhocracy - matrix and project). Intensity correlation was % + 64/7. Coefficient of determination in this

hypothesis was % 48/4. Means variable of problem-solving groups % 48/4 can predict positive significant impact on the formation of certain types of Non-bureaucratic structures (structures of Simple - adhocracy - matrix and project).

# Fifth sub-hypothesis

After data collection and analysis by using the correlation coefficient was determined that there is directly significant relationship between creation of a teams and non-bureaucratic structures (structures of simple - adhocracy - matrix and project). Intensity correlation was % + 65/5. Coefficient of determination in this hypothesis was % 34/6. Means Variable of Creation of teams % 34/6 can predict positive significant impact on the formation of certain types of Non-bureaucratic structures (structures of simple - adhocracy - matrix and project).

# Sixth sub-hypothesis

After data collection and analysis by using the correlation coefficient was determined that there is directly significant relationship between creation of common meetings between managers and employees and non-bureaucratic structures (structures of simple - adhocracy - matrix and project). Intensity correlation was % + 34/9. Coefficient of determination in this hypothesis was % 38/4. Means variable of creation of common meetings between managers and employees % 34/6 can predict positive significant impact on the formation of certain types of Non-bureaucratic structures (structures of simple - adhocracy - matrix and project).

## 12. Research Findings

According to conceptual model presented in this study and obtained result show that this research has been done for the first time in Iran. Thus main finding of this study was the highest relationship between bureaucratic structures (especially government organizations), with method of shared meetings between employees and middle or senior managers and method of formation of problem solving groups have more relationship with than the two other method knowledge distribution with non-bureaucratic structures (especially the private sector).

# 13. Suggestions

But among three methods of knowledge distribution is observed that method of formation of shared meetings between employees with managers including senior or middle in selected organizations had most relationship than in other methods or structures that are used pattern of bureaucracy for design and organize in their resources while non-bureaucracy structures through located in the dynamic environment and need for creativity and innovation have been the highest relationship with their maintain with formation of problem-solving groups. Thus to managers of organization including governmental and nongovernmental that are using bureaucracy model, it is recommended that In order to improve productivity and performance levels in their human resources of organizations have paid attention to holding common meetings between senior managers and middle with employees and also managers with non-bureaucratic structures in their organization show that PSG formation or problem solving groups was critical for the performance of their organization and has great importance from the perspective of employees. Also it is suggested for future researchers that survey of relationship between knowledge distribution methods with each structure for to determine most relationship each of methods to share the knowledge with one of the structures.

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