A socio-technical approach for change management due to the introduction of new e-government solutions in public sector

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ABSTRACT

This paper demonstrates utility of an integrated socio-technical approach in change management in organization that introduces new ICT solutions. An integrated approach among technology, people and organization is a must for a successful change management.
The case history of new ICT solution to elaborate files that companies send to Registro Imprese can help us to understand how this approach is effective. A new role of people, new cooperation between people and between teams and a new need of an integrated management of helping and consulting channels become necessary with new ICT solutions. In this paper we describes two consulting project that we did in two Italian Chambers of Commerce (Bologna e Napoli) to lead change due to the new companies' obligation to send files to Registro delle Imprese only by web.

Keywords: Team, process, organization, socio-technical, Citizen Relationship Management.

1. THE CONTEXT

Italian Chambers of Commerce

In Italy, Chambers of Commerce are public organizations and have three main missions: to manage Registro delle Imprese and to authorize beginning of some commercial activities, to control markets and trades, marketing and promotion of their area. In Italy we have more than 100 Chambers of Commerce: each of them has responsibility on a specific Province.
The revenues of Chambers of Commerce come from a compulsory fee that is paid by each Company. The size of Italian Chambers of Commerce depends on the number of companies of the area. The two Chambers of Commerce of Bologna and Napoli are two of the biggest in Italy.

Registro delle Imprese

Registro delle Imprese has the mission to assure legal publicity of information about Companies (legal office, administrators, equity owners, …). The right book-keeping of Registro Imprese assures information about owners and other legal characteristic of companies involved in a business affair.

Registro Imprese works on files that concerns two kinds of operations:
– Annual operations (balance sheet);
– "Spot" operations (first registration, modifications, …).

There are two users categories:
– companies who send files;
– professionals who send files for companies (notary, accountant, services agencies).

2. E-GOVERNMENT STRATEGIES AND TECHNOLOGICAL INNOVATION

Changes due to new technologies

Actually, the case history of this paper concerns the most relevant Italian e-government project. Since 2003 companies are obliged to elaborate files using a software - FEDRA – delivered by a company (Infocamere , owned by Chambers of Commerce) and to send them (with all optical version of attaches) using TELEMACO software. Users have to sign files by a digital code delivered to them.

Consequences on employees' work are relevant because:
• the number of contacts in Chamber's offices decreased dramatically while telephonic and e-mail contacts grow;
• first check of files is made by customers and not by employees as before.

A sample of 5-10% tested new process for two years. Users satisfaction about new technology is bringing them to extend use of electronic files even in case of not compulsory situation (individual enterprises). Today, Chamber of Commerce manages electronic files for 100% of the company and for 70-80% of individual enterprise.

Market, Strategy and Structure

Technological innovation and new law forced Chambers of Commerce to redesign services starting from the market's characteristics and defining the structure of organizational chart in order to ensure a full fitting with market.

This approach of organizational analysis is the opposite of traditional way that started from activities of people and grouped them giving responsibilities to someone: it was an internal analysis. New paradigm starts from market and come towards internal activities [1].

Service redesign in Chambers of Commerce of Bologna and Naples

An organization has to redesign service in order to achieve the opportunity of technological innovation. It means:

▪ think its self as a services producer;
▪ identify clearly their customer typologies and their needs;
▪ make a cultural shift towards customer satisfaction.

The steps of service redesign in Bologna e Napoli were the following:

1. customer analysis, needs and delivering channels;
2. definition of service concept starting from needs;
3. integrated design of technologies, organization and operational to delivery service.

Know our customers

The first step was the identification of the needs concerning specific market segments. In this activity is necessary understand who really are our customers. In this project they were:

- External customers: individual enterprises, companies, professionals.
- Internal customers: who is part of service delivering even if indirectly.

The second step was the analysis of activities for each market segment in order to understand their needs and difficulties. So, we organized some focus group to understand from customers weaknesses in terms of usability and flexibility of service.

Each weakness point has been analysed in order to remove causes of the problem and to re-design a service suitable for customers.

We used an approach based on relationship between customer and organization. According to this approach service process is a sequence of phases in which are defined customers, suppliers and the front line operator is "the organization" for customer.

Therefore, service was redesigned as follows:

1. Core service and support services: with introduction of new technologies has been necessary not only redesign core service but also design new process of helping and consulting (by call center, web site, customer assistance department).

2. Service delivering system: with introduction of new technologies service is available 24 hours a day in everywhere..

3. Integration of channels: customer must have the same support in each channel and must be sure that someone will solve his problem. We defined clearly who has responsibility of customer satisfaction in each moment of process.

3. A SOCIO-TECHNICAL APPROACH FOR CHANGE MANAGEMENT DUE TO THE INTRODUCTION OF NEW E-GOVERMENT SOLUTION IN PUBLIC SECTOR

Change management due to this ICT innovation was based on a socio-technical approach. "The traditional socio-technical model is defined by the transformation of material or immaterial goods which are taken as inputs across the system's boundary from the environment, and delivering outputs in the same manner to the environment.

Butera and Schael propose to redefine socio-technical thinking under the integrated issues of goals, processes, technology to support cooperation, organization as a system of cooperation, people, etc. Their key thesis is that it is possible to radically design and to continuously improve advanced socio-technical system." [2].

Therefore, we analysed in an integrated way dimensions of change:

- technology;
- organization;
- people.

Changes in organization

New e-government solution are relevant for both micro and macro organizational structures. New mix in use of channels of information by customers makes necessary changes in macro structure (creating a new organizational area responsible in customer multi-channel information).
The compulsory use of on line channel for companies decreased in number of contacts in front office and dramatically increased use of e-mail and phone channels.
The "noise" to the teams working on files that before come from customers that asked information was very high and limited performances of teams. Therefore, we choose to create an organizational area with the customer relationship management as its specific mission.

Responsibilities of this new area are:

- to control good functionality of call center answering correctly to the frequent question of customers;
- to send specific questions to the right person that can solve the problem;
- to control problem solving skills of operators during the file process;
- to control problem solving skills of teams after the file process.

Another relevant change is the new mission of Registro delle imprese: to design and deliver new services that create value to the customers.
Projects' success has come from the great attention given to integration with other key process of the Chambers. These process are:

- customers care
  - Call Center
  - Web Site (frequently asked question, etc.)
  - Front line customer consultancy
- Training for customer
- Training for employees of
  - teams
  - others areas in Registro delle Imprese
  - call center
  - others departments of Chambers
- Development of knowledge management systems

Designing micro structure we replaced an individual working organization with an organization based on self regulated teams.

According to socio-technical approach, this organizational change was based on transition from a mechanical model (burocracy, hierarchy, high work fragmentation, the man as a "spare part" of organization, executive culture) to an organic model (network of self-regulated systems, professional roles, human resources as part of a system, problem solving culture). [3]

The target was to obtain a save of human resources on core process and to utilize that resources in assistance activities and in developing new services.

According to Mohrman [4] characteristics of high performing teams are:

- accomplishes its objectives efficiently and effectively;
- contributes to the effectiveness of the larger business unit;
- learn end then improves its performance through time;
- build team-member commitment.

Team design was based on actions to sustain:

- cooperation culture;
- objectives culture;
- team culture;
- leadership as coaching.

Each of these dimensions produced the followings operative choices:

- cooperation culture has been building introducing in team activities a coordination style by mutual agreement – according to Thompson's definition – and not by hierarchy or by programs [5];

- objectives culture has been building preparing a tableau de bord composed by key performance indicators - shown in team room – and organizing weekly meeting of teams;

- team culture has been developing creating a link between team and a specific set of customers, modifying logistic layout in team room and creating a knowledge management system based on teams;

- coaching culture has been building modifying the role of team leader with an emphasis on support process (motivation, knowledge management, …).

Changes for people

After introduction of technological innovation is necessary that a single operator manages the whole process. This operator has a new larger organizational role and becomes the only responsible of customer satisfaction. This operator has also to manage the relationship with customer taking a wide commitment for him. We define this new role "**Process Operator**" as a manager of the whole process.

Process Operator has to do personally all steps of file process and to answer to customer's questions during the process.

This new organizational role takes a commitment and responsibility of customers satisfaction. Process Operator has to be able to work all typologies of files and to have a complete view of process.

All people working in this role will have to do a professional growth in order to ensure new control tasks.
Before this project control system had to ensure that files are correct; now, responsibility concerns target of performance.

This new responsibility by objectives takes a necessary empowerment of employees in order to take suddenly the right decision to solve problems and leads a continuous improvement process.

The roles must act in integrated and inter-functional way , so that they can guarantiee flexibility and cohesion both in the organizational units in which they are and with the other external organizational units.

Obviously, formative actions are necessary to permit to the Registro Imprese personnel to be able to act efficiently the new roles as the they are designed. The potentiality must be individuate to permit to the organizational model to function according to the mechanism and the modes foreseen.

This means that behind the Process Operator must be an adequate organizational structures. Must be constituted organizational units, devoted to control operative process of the given service,.

In support of the Process operator there is an organizational structure composed by the other Process Operators (Team) that know all the aspects relative to the process of the service and do all the connected activities.

The Process Operator is the person in charge of the relationship with the customer, but he is supported by a flexible structure specialized into the specific service.
In the case of particular situations Process Operator can refer to the experiences and knowledge of the team that are the main repository of the information relative to that service.

The team controls groups of homogeneous activities that are able to deliver service.
The team must be composed by personnel higher qualified with wider knowledge of different parts of the process.

This permits to obtain in the team an higher flexibility of human resources to be used in different roles according to the different needs of the service.

The team is responsible of the results relative to the controlled process. For this reason the team do a continuous monitoring of a set of key performance indicators of the delivered service.

This is an innovative key point of this organization to control process: in the previous organization process were not identified and didn't exit an innovation and self-regulation system.

The only innovation possible in an organization that doesn't identifies its process is a top-down innovation.

It was the right solution in a static context in which managers have time to analyse situation, to take decision and to communicate them to operators.

When turbulence of context makes necessary an higher reactivity that model defaults.
Teams have to be self-regulated to respond at changing needs of customers and have to be flexible and objective-oriented.

Therefore, new organization takes more empowerment of people with a parallel development of control system and clear boundaries of autonomy.

More communication among the people of team means less questions to the team leader who can have a full role of coach.

Negotiation and conflicts solving skills becomes relevant for the role of coach.

According to March [6] the best strategy to build a real agreement between persons with different preferences and different identities (as is usual in real teams) is to remove conflicts.

March indicates two way to remove conflicts in teams: to align incentives looked for by rational actors or to align identities of actors that follows rules.

Cooperation among team members has to becomes an individual skill and has to be supported by team leader.

He has to favourite cooperation:

- among Process Operator inside the same Team
- among different Teams
- between Process Operator and team leader.

4. CONCLUSIONS

This paper deals two cases of socio-technical approach to change management.

The need of an integrated approach to technology, organization and people is evident in the cases of Registro delle Imprese of Naples and Bologna.

Introduction of a compulsory ICT channel to elaborate and send files has done necessary a re-design of organization and of roles.

Macro organization has been changed creating a new Unit responsible of an integrated and effective management of different delivering channels with the mission of controlling customer relationships.

Self-regulated teams have been created to manage core process in a more efficient way.

So, it was possible a saving in terms of human resource working on core process and to use them for customer relationship management activities.

Roles of people have been changed and have become wider and objective-oriented.

This integrated approach to technology, organization and people transform ICT innovation from a treat to an opportunity to get better people work and organization performances.

5. REFERENCES

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