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L'ORGANIZZAZIONE FA LA DIFFERENZA?

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CHANGING WORKING RELATIONSHIPS.
THE ROLE OF ICT IN SHAPING A NEW
PSYCOLOGICAL CONTRACT

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1. ICT solutions: "unusual liaisons" between employee and organization?

Spin-offs, acquisitions, mergers, downsizing, «rightsizing», reductions in the workforce are solutions that often enhance the flexibility of an organization. However, all these changes have deeply influenced employee-organization relationships, not only in a juridical sense, but – even more significantly – in an organizational sense (McLean Parks and Kidder, 1994). The employees – and not only the organizations - have become more flexible, more mobile across different firms, building and choosing their own career paths (Arthur, Hall et al., 1989).

In this revitalized labor market, firms face an apparent mismatch in retaining their competitive advantage: they have to both invest to develop and retain their "best" human resources and look for flexible organizational solutions capable of addressing changes that are unpredictable (Levitt, 1960; Prahalad and Hamel, 1990; Sambamurthy et. al., 2003; Wernerfelt, 1984). These factors have sparked an ongoing debate on how to sustain working relationships in changing organizations. Great emphasis is placed on analyzing the influence of the different formal contracts, human resource practices or management styles in shaping the nature of the relationship, but little attention has been paid to understanding the relevance of information and communication technology (ICT) as a practical organizational solution that could influence employee behaviors.

The issue of 'technology and work flexibility' is widely cited in managerial discourse. Statistical surveys underscore that the phenomenon is not only growing in importance, but also accelerating; indeed, mobile workers already account for more than 6% of Finland's workforce and around 5% of Italy's (Empirica, 2003). However, the data are difficult to interpret due to people's diverse definitions of "mobile work", the non-homogeneous factual types of implementation, and the controversial outcomes (Vendramin and Valenduc, 2000) . Surprisingly few systematic assessments of current mobile work practices exist. A gap that must be filled, given that only an analysis of the actual state of play of mobile work practices will enable us to better understand if and to what extent mobile work is a real practice or just a managerial fashion, as well as its real impact on work relationships. These are the issues addressed in our research, which reports on the current mobile work scenario in Italy with a case-study analysis of several mobile work projects and their local implementation.

2. ICT solutions as a managerial fashion

According to the new-institutional theory, institutional pressures lead to convergence in an organization's structural features through a process of isomorphism survival (Powell & DiMaggio 1983, 1991; Hinnings & Greenwood, 1988). Isomorphic processes are social processes that could be the result of the dissemination of fashion "waves", which induce organizations to adopt (sometimes only formally) specific practices to enhance their legitimation among customers and stakeholders. Management fashion-setters propagate management fashions, by which we mean "transitory collective beliefs that certain management techniques are at the forefront of management progress" (Abrahamson, 1997, Barley & Kunda, 1992; Guillen, 1994).

In recent years, the development of managerial literature on the technology mediated employee-organization relationship has mainly focused on the technology impact on work flexibility (Robinson et al., 1994; Brodt and Venburg, 2007).

Several management scholars have recognized two contradictory types of employee-management rhetoric (Guillen, 1994; Kaufman, 1989, 1993; McGregor, 1960; Scott, 1992, Barley and Kunda, 1992), adopting the terms "rational" and "normative" to distinguish between the two.

The key assumption underlying the *rational* rhetoric is that work processes can be formalized and rationalized to optimize productivity. Therefore, management's role is to engineer or reengineer organizational machines and systems to maximize production processes and to reward employees for adhering to such processes.

The key assumption underlying the *normative* rhetoric is that employers can boost employee productivity by shaping their thoughts and capitalizing on their emotions. The role of managers is to meet the needs of employees and to channel their unleashed motivational energy through a clear vision and a strong culture.

We adopted the new-institutional perspective to analyze the new technological solutions for flexible work as managerial fashions. Indeed, this "fashion perspective" focuses on two important aspects of the technology and work flexibility issue, which we want to test through our research project: first, does management adopt technical solutions in a rational way to enhance their productivity or in a normative way (i.e. socio-affective adoption) merely to legitimate themselves with their stakeholders; second, could managerial fashion techniques have a lower impact in practice than in managerial

discourse (Abrahamson, 1996); indeed, we found specific evidence pointing to the difficulties inherent the fashion-setting process.

Does management adopt technical work solutions in a 'rational' way to enhance productivity? Does management adopt technical work solutions in a 'normative' way (i.e. socio-affective adoption) to shape the employees' emotions?

What are the potential opportunities, risks and results of each perspective?

2.1 ICT solutions as a "rational" way of organizing work

By extending computing and the internet into the wireless medium, mobile technology allows users to have "anytime-anywhere" access to information and applications, which provides greater flexibility in communication, collaboration and information sharing (Shang et al. 2006). In particular, the new technologies are the harbinger of what is known as the "wired organization" (McKinlay, 2002; Stover, 1999), where a large part of the work relations are mediated by technology. Mobile technology, which can support computing-on-the-move through the use of portable devices and wireless networks (Varhney and Vetter, 2000; Malladi and Agrawal, 2002), has emerged as the next wave of the IT revolution. Mobile technology includes technological connectivity infrastructure, such as Wireless Application Protocol (WAP), Bluetooth, 3G, and General Packet Radio Service (GPRS), as well as mobile information appliances, such as mobile phones, PDA, and laptop computers (Varsheney and Vetter, 2000; Perry et al. 2001).

The changes underway in the ICT sphere enable the progressive abandonment of the old work logics because sharing space is no longer a constraint to which to subject many types of employees (Gayesky, 2002; Andesern et al., 2003; Kakihara and Sørensen, 2004).

Nevertheless, several companies who have chosen or offered this method of distance work have retraced their steps and "e-working", cited in the managerial discourse as a flexible and innovative solution, is finding it hard to get off the ground.

Could ICT-working be a true "rational" solution/fashion? If yes, how?

2.2 ICT solutions as a "normative" way to organize work

Rousseau and McLean Parks (1993) describe the employee-organization exchanges as promissory contracts, where commitment of future behavior is offered in exchange for payment. According to this definition, employees develop some expectations about the organization's context and adapt their behaviors according to their perception of the reciprocal obligation (Gouldner, 1960; Levinson, 1962) .

Research on labor contracts suggest that they are idiosyncratically perceived and understood by individuals (Rousseau, 1989; Schein, 1980). The subjective interpretation of the labor contract has been called "psychological contract". Originally employed by Argyris (1960) and Levinson (1962) to underscore the subjective nature of the employment relationship, the present use of the term centers on the individual's belief in and interpretation of a promissory contract. Research has confirmed that employees look for reciprocity in a labor relationship and that their motivation to work is heavily influenced by their perceptions: the more the relationship is perceived as balanced, the more employees are disposed to contribute and perform, even beyond the duties called for by their role (Adams and Rosenbaum, 1962; Organ, 1997; Van Dyne et al.,1995).

ICT enables work solutions that move the work from inside to outside the organization and can have different positive outcomes on the employees' perception of the organization's determination to meet their needs. In a word, ICT solutions could have a positive impact in shaping psychological contracts as a form of signaling.

Could ICT-working be an emotional "normative" solution/fashion? If yes, in what way?

3. Rational versus Normative adoption? A possible operationalisation

To operationalise and measure the two main adoption perspectives of our research project (rational vs. normative), we propose a framework that is generally used to evaluate the implementation of public policies, especially when the results: (a) may be both tangible and intangible; (b) have to be evaluated according to the different stakeholders, sometimes with objectives that do not coincide; (c) can be evaluated from both a "rational" and a "normative" viewpoint; and, ultimately, (d) when the "what", "how" and "when" questions are of key relevance to the evaluation process because the decisions about these issues tend to determine the final results (Hirschheim and Smithson, 2000).

The evaluation model proposed assesses public policies according to three different effects: outputs (i.e. products-services generated), outcomes (i.e. results when products reach their target market), and impacts (i.e. underlying problems addressed or developed by the program in the longer term) (Pressman and Wildavsky, 1973).

The preliminary conditions are definitely applicable to the evaluation process of the aims and results of the projects analyzed. For this, we decided to use the same framework to measure the results of the three projects object of our case studies to identify and understand any differences and homogeneity between the projects and classify and code their relative managerial process as "rational" or "normative", according to our research objectives. Specifically, in line with the two formats adopted, we operationalise our variables as follows:

Normative adoption:

–   Dominant focus: impacts

–   Secondary Focus: outputs (as a mean)

–   Residual: outcomes

Rational adoption

–   Dominant focus: outcomes and outputs (as investment)

–   Residual (but evident and persistent): impacts

4. ICT solutions in IBM, I.Net and Unisys: research design

In line with the descriptive and explanatory nature of the research project and the characteristics of the subject, we designed multiple case studies in order to analyze the organizational variables, as well as their development from when they were established to the present day, while also identifying the various determinant factors. Our research is based on a longitudinal study of three emblematic cases: the European Mobility Project at IBM; the Tele-working Systems at I.Net and the Agile Mobile Worker Project in Unisys. All the projects analyzed had the goal of enhancing workforce mobility through technology.

The relevance and the significance of these projects to our research is confirmed by the fact that each of them: (a) centers on advanced technology solutions; (b) uses metrics to measure project success; (c) adopts the longitudinal perspective (from needs analysis to

implementation and evaluation phase; (d) produces different outcomes/results; and (e) represents different project phases.

While IBM, I.Net and Unisys are three different kinds of companies, they each share several key features that make them good comparable for the purposes of our research: they are all focused on internal technological innovation (i.e. each employs technology-oriented people highly familiar with new solutions) and external technological innovation (i.e. each supplies clients with technological solutions).

Mobile working is an umbrella term for the working processes related to the new spatial dimension of organization enabled by the new ICT solutions. The adoption of a longitudinal approach means we can move beyond the comparative analysis of static solutions and track the evolution of the project analyses themselves.

Data Collection

Data was gathered through documental analysis, semi-structured interviews with the HR managers, line managers and project leaders of the three organizations, and direct observation. We first gathered background information through documental research and then collected data through semi-structured interviews with core project contributors. We interviewed from three to six people in each company, holding between six to nine interviews in each company for a total of 21 interviews.

Each case study followed a standard protocol (Yin, 1993). We asked our informants to give a detailed description of the following variables: project objectives and overall aim, project sponsors, project organization, target population, project phases, main constraints and facilitators, technological supports and infrastructures and, finally, the project results. These data were then formulated into descriptive tables to give us a clear representation of the three projects and their main organizational features (see Table 1).

<div align="center">INSERT TABLE 1 HERE</div>

Our informants were first asked to reconstruct their personal experience of the project to distinguish the facts (how it started, who was involved) from individual observations. All the interviews were taped and transcribed. Our reconstruction was based on our informants recall, combining multiple perspectives helped us move beyond individual perceptual biases and alleviated potential recall problems.

Data Analysis

The multiple data sources enabled us to compare the perceived, declared, and subjective organizational viewpoints of the actors involved, as well as gain an objective organizational perspective describing the organizational practices actually implemented by each company within their mobile projects. Data analysis used common methods for grounded theory building (Glaser and Strauss, 1967; Miles and Huberman, 1984) and combined within-case analysis with cross-case comparison. Our goal at this stage was to identify the main features of each project and the "nature" of the adoptions (i.e. rational versus normative). At the end of this process, independently, we gave a number to each variable of the evaluation model (i.e. focus on output, outcome and impact) to cluster the three projects studied. Furthermore, we asked three students to read the scripts of the cases and to grade the same variables. Finally, we computed the average of the ten values assigned to each of the variables, encoded according to the following Likert scales (see Table 2):

Focus on outputs: (scale: 1 = low to 10 = high)

- 1= no investments (low attention)
- 5= as mean to reach results (medium attention)
- 10= as an investment (high attention)

Focus on outcomes (scale: 1 = low to 10 = high):

- 1= not defined ex ante, not tangible; not monitored (low attention)
- 5= defined in a de-structured way (medium attention)
- 10= measurable, tangible, defined early; monitored (high attention)

Focus on impact: (scale: 1 = low to 10 = high)

- 1= no attention (low)
- 5= as by-product, to prevent constraints (medium attention)
- 10= as the main objective (high attention).

Finally, we analyzed the application of the ICT work solutions taking into account the relative managerial processes. While our main research focus was on the organizational viewpoint, we also identified some organizational constraints and facilitators and gained an idea of the employees' viewpoints.

Case 1: The IMB Mobility Project

In November 1999, IBM launched its Europe-wide Employee Mobility Project, an international and inter-functional project to develop and increase the work mobility initiatives offered by IBM, pinpointing and implementing technical and organizational solutions for mobile work. The project is still underway and has already produced numerous effects. The project was sponsored internally by two IBM vice-presidents.

Project Design and Implementation

The project coded each IBM employee in a specific category that defines them in relation to their prevailing place of work. This enabled the identification of the home workers – who carry out almost all their work at home (otherwise known as e-workers); the mobile workers – meaning those who carry out almost 50% of their work off-site and who share a desk; the customer workers – those whose work is mainly carried out at the customer's offices and who are not allocated a desk, but if necessary can use a shared desk; and the transition worker – those who carry out part of their job off-site (30% on average), but who are allocated a fixed desk for their exclusive use.

These combined workers are on the rise compared with earlier years and currently account for 41% of the total workforce. In addition, all those employees who do not occupy a fixed desk account for around 35% of the total. These data attest, on the one side, to the size of the mobility phenomenon in IBM EMEA and, on the other, to the fact that 35% of IBM EMEA's total workforce does not work regularly at the company's premises and does not have a fixed workstation. Currently, 85% of IBM employees have been given personal laptop computers to provide an incentive for e-working.

Further, the company carried out a survey in Italy that has enabled it to segment the total IBM Italia employee population according to the time and uses of the remote connection method. This segmentation met the need to associate the different user segments with the most appropriate technical tools and supports in terms of efficacy and efficiency.

The survey produced three user segments: a) the *Anywhere & Always* segment, which classifies those employees who normally use the remote connection to communicate with the company, who do not have a fixed desk and who use the remote connection for e-mails and to access the internet and the company's intranet, who spend an average of 18.5 hours per month online; b) the *Touchdown* segment, which groups those workers

who normally connect remotely from home for an average of 8.5 hours per month, and who use this access to hook up to the internet and the corporate intranet and, prevalently, to send/receive fairly hefty documents via e-mail; and c) the *Occasional* segment, which comprises all those workers equipped with a laptop computer for remote access and who use it for a maximum of 11.5 hours per month, but not in a systematic way. These employees account for 22%, 43% and 35%, respectively, of the total number of users.

After identifying these three segments, the company studied specific support tools that would respond to the diverse needs in an efficacious and efficient way. In particular, the Anywhere and Always workers get a laptop PC and a GPRS cell phone for connecting to the network. In addition, a small number of the Touchdown segment was wired with a dedicated ADSL line at home and, naturally, given a laptop PC, while the Occasional group was also equipped with a laptop computer.

Ultimately, to support the possibility of remote access, a dedicated corporate intranet website was designed specifically for IBM Italia. The website, launched in September 2001, streams a quantity of useful information for distance working and promotes these methods also by presenting the direct testimonials of the mobile workers.

Organizational Project Setting

The IBM EMEA Employee Mobility project is part of the Business Operations function, a unit that encompasses all the activities supporting the group's core business, which, on the other hand, is related to sales and research and development. The company also set up an international project group dedicated to the project on an ongoing basis. The project group is not only international, but also inter-functional, enabling the convergence of the different project members who head up the HR, Technology Development, Real Estate Management and Internal Communication corporate functions.

Measuring the Results

The Employee Mobility project also envisages the opportunity to heighten IBM's competitiveness through a number of expected benefits for the different categories of recipients, defined at the beginning of the project. The project has enabled the company to improve its economic health, thanks to the development of a corporate image in line with the e-business era, improved infrastructure management and increased work

productivity. This latter thanks to IBM's greater appeal in the job market and its improved capacity to retain the high-potential employees, reduce absenteeism, and increase the time that employees dedicate to customers, but, above all, thanks to the quantifiable and easily monetized cost-savings in real estate management.

The number of people sharing a desk at IBM EMEA has increased and the average number of employees per shared desk is currently 2.6. In addition, the density of the workforce has increased from 180sq.m. to 170sq.m per person.

The percentage of employees who use this work method has increased, despite the reduction in the overall number of staff employed by the EMEA group. Project-related results cited include an improvement and strengthening in the satisfaction of people generally; a more balanced management of family and working life; and greater flexibility and autonomy in the time-management of clients (on a par with the hours worked). The employee's decision to join the project is usually voluntary and is discussed with their manager. More and more people in IBM interpret this new method of working as an opportunity. Finally, the IBM client has experienced concrete benefits in the form of higher satisfaction, which derives from the greater amount of time dedicated to them by the IBM staff; a speeding up of the transmission times of critical information; and the more optimal response of the organization generally.

Nevertheless, some critical issues related to the social and interpersonal dimension of the work do exist, including the possible diminishing of the sense of belonging to the work group; the possible loss of identification with the IBM group; the loss of social relations with colleagues; the resistance related to the loss of status, tied to the symbols of space. Some difficulties also exist in terms of the inadequacy of the tools and/or human resource management policies, with people remaining anchored to the "traditional" places of work. Situations have arisen where the employee has complained of a feeling of being poorly valued by their boss, who, for their part, have reported a fear of losing control over their own staff. Lastly, practical hurdles have been reported related to the need to have an "alternative work space", one that adequately meets needs, which is not always available at the employee's home, and to have access to the use of efficacious technological supports.

Case 2: The I.Net Tele-working System

I.NET's core business is the design, production, and management of flexible, modular, and comprehensive solutions and services to meet the ICT requirements of its clients, backed by its extensive industry know-how. I.Net had about 250 employees at end-2007. October 2000 saw I.Net launch its Tele-working System, an inter-functional pilot project to help some internal employees accommodate specific individual work and life balance needs. The project was coordinated by the Human Resource Dept. and involved different line managers. However, the project has now been closed and none of I.Net's employees are currently involved in the scheme.

Project Design and Implementation

The project involved ten pre-sales engineers. I.Net decided to focus solely on organizational personnel for the pilot version, because of both the nature of the pre-sales work and the initial reasons motivating the employees.

The company prescribed that the e-working solutions were suitable only for those employees holding organizational positions, (taking into account both the job and the individual level of evaluation), who: (a) were able to control productivity, even from a distance; (b) could count on a low paper-based document flow; and (c) possessed good time-management and self-organization skills.

The project started with six volunteers who would work from home two days a week. I.Net (like IBM) was clearly able to harness technological advancement to implement and diffuse mobile work practices, ensuring their employees the possibility of always being "connected" to the company's offices using technological tools suitable for their "distance" work. Indeed, I.Net equipped each e-worker with a home ADSL connection, a company mobile phone, and a laptop computer.

Organizational Project Setting

The I.Net Tele-working project was designed and managed by the Human Resource function, which first had to resolve several normative, structural and behavioral issues.

From the normative perspective, Italian legislation was a project constraint due to not only the rigidity of its wording, but also its ambiguity (especially in terms of the contractual specificities of e-working). I.Net decided to circumvent this hurdle by stipulating a private agreement with each of the volunteer e-workers.

From the structural perspective, the company had to solve problems related to the control of work contents and times, prompting it to implement an operating information

system that encoded the working processes. In addition,, as mentioned earlier, the company equipped the employees with the necessary technical devices (laptop computer; mobile phone, and ADSL connection).

Finally, to address the behavioral dimension, I.Net decided to restrict flexible off-site working to two days per week to prevent the employee from feeling isolated and losing their identity within the company and to retain the social equilibrium of the workforce.

Measuring the Results

At the end of the first six months, the project was subject to an internal structuredevaluation - through interviews conducted by the HR department - to better understand the internal climate since its launch. The evaluation aimed to measure the satisfaction of all the e-workers involved in the project, as well as their bosses and other employees not involved in the project. The evaluation generated positive preliminary results from all internal perspectives. Indeed, the initiative also attracted other employees , raising the number of I.Net e-workers to ten (from the initial six).

From the company's standpoint, the main criticism was the lack of the e-workers' physical presence in the event of contingencies.

Case 3: The Unisys Mobile Working Program

Unisys launched its Mobile Working Program in Italy in 2002. The program was incepted by the Italian HR department and channeled through the company intranet.

The e-working project was the idea of the Director of Human Resources, who personally promoted it to enable the Unisys employees to better reconcile their working life with the needs of their private life.

Project Design and Implementation

The program was announced and a pilot program launched involving 20 employees, mainly volunteers, covering diverse corporate functions, including administrative and office staff. The volunteers were given specific training and an ad hoc workstation at home, from which they could also connect and work via the company's intranet. On average these employees work two days per week from home and the other three days at their office. Although the program was open to all employees (i.e. office staff, system developers), the volunteers had to meet a few conditions, such as a good level of working autonomy, a good past performance, and have been in the company's employ

for at least one year. Unisys supplied each mobile worker with: a laptop, a home ADSL connection, a company mobile phone, and a printer, while a few were also given ergonomic office chairs. The results of an internal survey revealed, on average, the high satisfaction levels of the employees and the medium level of satisfaction of their superiors.

Since then the program has been hit by inertia (meantime the HR Director has also changed) and the number of staff involved in the project was still 20 at end-2006 (although some have since left and others have come on board). At the start of 2007, however, the project was given a new lease of life by the "Agile" project implemented by the parent company. That project is of broad international scope and sets a common goal for all the Unisys subsidiaries: the containing of real estate costs to 2.5% of sales. This new momentum has spawned a number of new initiatives for the re-launch of the Mobile Working project and as incentives for the employees to get involved.

Firstly, the company decided to shape its own internal model for structuring and organizing the new spaces to meet the new needs by setting up a Business Centre, where anyone could book a predefined time slot – from anywhere through the corporate intranet – to use a desk and phone at the office. The goal is to ultimately organize all the offices in this way with the aim of reshaping and rationalizing the use of space.

Results Analysis

To date, the results of the project launched in 2002 are modest, even though we clearly need to separate the period in question into two phases: the first between 2002 and 2006, the second from the beginning of 2007 to the present day. Indeed, the nature of the project has changed considerably in this latter phase, when the company launched initiatives, also structural, to reorganize its work methods. The second part of the project is still in its launch phase, but has already produced the first visible results in terms of the growth in the number of employees enrolled in the program over the year to date and, above all, in terms of a new drive and orientation towards achieving the targets related to financial performance. The company has decided not to involve the labor unions for now, keeping the project in trial form and with the aim of proceeding in an incremental logic so as not to trigger any internal resistance. In its present state of evolution, it is not possible to check results further, but the HR department says it has received favorable signals in terms of both the growth of the number of employees

involved and the absence of internal resistance, along with the adaptation of the infrastructures deemed necessary.

Among the main problems and constraints, the most widely cited (from varying perspectives) are: the individual employee's feeling of a diminishing in their corporate identity and inadequate country-urban technical infrastructures (i.e. in terms of speedy of connections and reliability). Finally, our case study underscored that the advanced level of the Unisys technical culture and working practices meant that the working culture was perceived as a facilitator and not as a constraints it is in other cases. Indeed, in 1996, Unisys adopted an effective HR ERP system (PeopleSoft) worldwide to support and enhance the Agile Program output. In addition, the company intranet is highly advanced and already widely used as a managerial tool in the organization-employee relationship.

5.   ICT solutions as rational or normative fashions? Research results

The experiences of IBM and, partly, Unisys in its second phase attest to the feasibility and usefulness of the new work methods and solutions in optimizing work space flexibility. The projects have enabled the companies to improve their economic health - thanks to the development of a corporate image in line with the e-business era, improved infrastructure management, and increased work productivity, above all, thanks to the quantifiable and easily monetized cost-savings in real estate management. In particular, much prominence is given internally to the optimization of the use and management of the corporate real estate footprint, a factor that is directly attributable to the project and which has freed up financial resources. The number of people sharing a desk at IBM has increased and currently the average number of employees per shared desk is 2.6. Unisys is also paring property management costs and has already sublet part of the office space released thanks to Project Agile.

Both companies have spurred the percentage of employees who use this work method, despite the reduction in the overall number of staff employed by IBM and Unisys alike. The project-related results outlined include an overall improvement and strengthening in employee satisfaction; a more balanced management by employees of their family and working life; and greater flexibility and autonomy in the time management of clients (on a par with the hours worked). The employee's decision to join the project is usually

voluntary and is discussed with their manager. Table 2 shows how we coded our results in line with the evaluation model of outputs, outcomes and impacts. The IBM results are measurable as program outputs, outcomes and impacts, although less attention is paid to the program impacts at the beginning. The Unisys results are measurable as program outputs, given these relate to the preliminary phase of the program, although as the project advances, we can increase our focus also on the program outcomes and impacts .

On the other hand, the I.Net project had a very different organizational impact. Although it has since been wound up, it was a successful initiative that fostered no internal resistance, either from the employees or the line managers, and the project was closed purely due to the changing needs of the employees themselves. This project is comparable with the first phase of Unisys program.

The stated goal of both these firms was to signal their employee focus, which each did successfully. However no other, more productive goals were perceived by I.Net and no employees are currently enrolled in the I.Net program, while only few remain from the first stage of the Unisys program. The projects, thanks to I.Net's and Unisys internal climate and their employer branding in the job market, enabled the companies to improve their capacity to meet the work and life needs of their employees and to reduce absenteeism. But, more importantly from the companies' standpoint, the projects have sent the employees an emotional signal that makes them feel organizationally more embedded. The results of the I.Net and Unisys (Phase One) programs are measurable as program impacts, while the program outputs and outcomes are not so relevant. Table 2 outlines the rational and normative framework of adoption and shows how the I.Net and Unisys (Phase One) projects have been coded as normative, while IBM and Unisys Agile (Phase Two)slot into the rational framework of adoption.

INSERT TABLE 2 HERE

In addition, each of these cases highlights the existence of common critical issues related to the social and interpersonal dimension of the employees' work, including potential negative factors, such as a diminished sense of belonging to the work group; loss of corporate identity; loss of social relations with colleagues; and resistance related to loss of status, all tied to the symbols of space. Some difficulties also emerged in terms of the inadequacy of the tools and/or human resource management logics, with people remaining anchored to the "traditional" places of work. Situations have arisen

where the employee has complained of a feeling of being poorly valued by their boss, while these latter have reported a fear of losing control over their own staff.

Lastly, practical hurdles have been reported related to the need to have an "alternative work space", one that adequately meets needs, which is not always available at the employee's home, and to have access to the use of efficacious technological supports.

These preliminary results lead us to express the following considerations.

Firstly, the case studies confirm a substantial coherence between the managerial discourse and the effective situation analyzed, even though the scenario investigated seems privileged from this viewpoint and that even the actors describe it as unusual. This corroborates the theory of Abrahamson and Fairchild (1999) on the temporal divergence, in some cases, between managerial discourse and practice, but, on the other hand, also helps us to better understand the dynamics that can favor or hinder the convergence of practices with managerial discourse.

Secondly, IBM and Unisys adopted the ICT solutions in a rational way, with measurable outputs on firm productivity. On the other hand, the adoption and implementation of ICT solutions by I.Net (and Unisys in its first program phase) was more normative, achieving its primary goal of having a relevant impact on the psychological perceptions of the employees of the reciprocity of the contractual obligations.

These factors enable us to confirm the possible dual role of ICT-working solutions and their positive impact on the employees' psychological contract, even when the adoption is solely nominal.

In addition, the three case studies induce us to suggest that only a rational adoption can be successful and durable in the longer term. In fact, the adoption of non-rational solutions can translate into project hurdles when it comes to future development (i.e., not during initial implementation, but more in the longer term for large-scale programs). Generally, however, this work method is not at all widespread in Italy, so it is certainly appropriate to speak of a managerial fashion that still seems to lack a consolidated following. Nevertheless, the implementation of these managerial practices in the three cases in question can help us identify some useful guidelines.

6. ICT solutions: how to implement the managerial discourse

The literature on managerial fashions cites the gap that sometimes distances theory from practice as one of the reasons hindering the diffusion of these practices (Abrahamson, 1997). This paragraph has the objective of trying to partly bridge that gap. Below, we indicate several practical guidelines, the fruit of our case studies, to help address the different critical issues encountered in the process of designing and implementing flexible solutions, aimed at facilitating the "rational and aware" diffusion of the managerial discourse on the subject of technology and flexible work.

Our analysis, in a longitudinal and dynamic perspective, indicates clearly the importance of a logical development that envisages a first phase of (a) analysis and design; a second phase aimed at (b) the effective introduction of the flexible forms mediated by technology; and a third and final phase aimed at (c) the monitoring and measuring of the results achieved by the project.

Step. 1 Bilateral Needs Analysis and Definition of the Goals

The redesign of the work times and spaces assumes the upstream production of a feasibility study that not only analyses the needs of both company and employees, but defines concrete and realistic objectives. These bases will enable the company to introduce new forms of flexible work capable of marrying and reconciling the diverse needs of the company with those of the individuals, without running the risk of designing projects that lack coherence and which are de-contextualized from the real needs of the interested parties.

These premises pave the way for another essential step, that calling for the clear definition of the objectives to be achieved: the lack of a defined and common goal makes it hard, if not impossible, to embark on the project process.

Step 2. Introduction of Flexible Work Forms Mediated by Technology

The managerial techniques used for dealing with the flexibility of the work space require the evaluation and overcoming of constraints (within and without the company) and the development of some organizational preconditions capable of maximizing adoption and acceptance.

In many cases, technology is a facilitator, a tool that enables new forms of flexible distance work, but there are other kinds of hurdles to surmount, ones that are structural, regulatory, cultural, and even psychological in nature.

Firstly, it necessary to come up against structural constraints to the introduction of flexible work models. Some workers need to be in direct contact with the machinery and plants installed in the company, which thus restricts their presence to the place and time of machine loading, operation, and control: this constraint is typical of an industrial organization, but affects an increasingly lower number of workers. Other jobs involve direct contact with the client - where this latter physically comes to the company at set times - or with employee colleagues or even with colleagues who are members of the work group. Other restrictive factors might include information and documentation centers that cannot be decentralized. So flexibility is not suitable for everyone: the corporate population needs to be segmented. In addition, the office layout also needed to be adapted to the needs of the mobile population, as did the information technology structures (intranet, videoconferences, virtual domains).

On the regulatory front, our case studies underscore how Italian labor legislation has long impeded the introduction of flexibility to the space-time aspect of the work performance, given that it has not yet been updated to cover the new working possibilities offered by technology. However, the cases attest to the feasibility of flexible solutions despite such constraints.

When it comes to cultural constraints, a particularly critical aspect in the adoption of flexible work forms is the popular view of the significance of "traditional" work forms and the values that it rewards or, to the contrary, penalizes. In Italy, the idea of "always being present" is still widespread, by which "presence = productivity". This logic is clearly antithetic to that of "working outside the company".

Finally, another factor that can impede a company's adoption of flexible work forms - at least in the initial phases - is the possible psychological resistance of the employees themselves. In the cases analyzed, diverse measures were taken to address the natural resistance to change deriving from the fact that any change in working methods necessarily and inevitably has an impact on the daily routines of the individuals, triggering fear and anxiety. Companies need to focus carefully on these aspects and start by preparing a communication plan that provides all the information and indications on the new solution to be introduced into the organization and guarantees a response to any requests for clarification by the employees. Our case studies also suggest that

companies should not present such solutions as compulsory, but propose them as a choice to be made by the employee.

Closely connected to the subject of the constraints to overcome are the organizational preconditions needed to ensure the good outcome of the project, which therefore need to be planned in parallel with the other project design aspects. These comprise the corporate culture and the human resource management systems.

If the corporate culture tends to penalize (perhaps in terms of career) the flexible management of the work time, it will be difficult to get the employee to accept it. Therefore, flexibility needs to be given similar value and this value needs to be diffused throughout the company, rewarding it wherever it is represented.

The designing of human resource management systems - thanks to which the value of flexibility is tangibly supported - is also closely related to this theme. Management systems are an indispensable organizational precondition for the adoption of flexible work forms. The existence of an organizational system of work processes to meet goals, which must be accompanied by an employee performance appraisal system to measure the results achieved, is an essential part of the effective project. This translates into new tools, but also new management logics that need to be transmitted across all levels of the organization.

Step. 3 Monitoring and Measuring Results

The last step in the introduction of flexible work forms calls for both the continuous monitoring and the final measuring of the results achieved for the company and for the employees. Continuous monitoring is a fundamental factor in enabling the correction of any errors and to identify any required changes; the accurate measuring of the results achieved (better if concrete, tangible, quantitative) is of significant importance. This aspect is especially significant because it marries qualitative measures and indicators with other more quantitative parameters, which also have an immediately recognizable economic-financial impact, such as the real estate implications (as in IBM and Unisys).

7. Conclusions

The employment market currently is the object of a far-reaching cultural revolution that is affecting the work relationship. Values and principles, such as loyalty to the company

and a job for life are gradually giving way to concepts such as employability, professionalisation and entrepreneurship.

The companies explain (and justify) this trend as instrumental to the flexibility and cost-reductions demanded by an increasingly competitive and global scenario. However, one might assume that all this would lead also to a change in the context and in the forms of social interaction between the individuals in the company and between the company and the employee. Indeed, in this sense, companies are moving towards organizational forms that force them increasingly to make a trade-off between greater flexibility and the diminishing of the organizational commitment of the people who work for them.

The three projects discussed attest to the business opportunities sparked by the new technological solutions in supporting work flexibility, but, more generally, in supporting the emotional relationship (i.e. the psychological contract) between the employee and the organization. This "unusual liaison" – i.e. the ICT solution – is particularly relevant when it comes to the actual nature of the working relationship.

First, all three projects seem to confirm the alignment of the managerial discourse with organizational practices. However, our results are also consistent with the "time-lag" theorized by Abrahamson and Fairchild (1999).

Second, the nature of the adoption of technology based work systems in our case studies proves that both rational and normative adoption are possible.

Ultimately, the three cases enable us to identify several critical issues and guidelines for the design and implementation of technology based work systems – to sustain the contamination of practices - such as: the dual approach (the organizational and the employer viewpoint) during the needs-analysis and goal-setting phases; the relevance of a coherent organizational culture and human resource system (i.e., especially appraisal and reward systems); the removal of organizational structural constraints; the management of cognitive resistances; and the importance of the evaluation and monitoring phases during the project processes.

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Table 1. e-working study sample: preliminary first comparison

	IBM Mobile Project	I.Net Teleworking Systems	Unisys Mobile Project (Phase 1)	Unisys Agile Program (Phase 2)
Project Aim	Cost reduction	Employee satisfaction/internal climate	Employee satisfaction/internal climate	Cost reduction
Project Sponsor	Business Operations Dept.	Hr Dept.	HR Dept. and General Management	General Management
Current Project Phase	Mature	Mature/End	Mature	Start-up
Curr. No. of e-workers/Total Employees	3000/13,000 (IBM Emea South Region) Segmented	0 Previously: 10/250	Max 20/400	20/250, (number increasing)
Conditions for enrolment in the e-working program	Voluntary	Volunteers in organizational roles: 1. Able to control productivity; 2. Low paper-based document flow; 3.Good time- mgmt skills.	Voluntary 1. Good level of working autonomy; 2. Good past performance; 3. in the company's employ for at least one year	Voluntary Same as in Phase 1
Technical supports	Varies according to the user, but generally: ADSL line, PC, mobile phone, Intranet	ADSL line, PC, mobile phone, Intranet	ADSL line, PC, mobile phone, Intranet	ADSL line, PC, mobile phone, Intranet
Main Constraints	– Presence = productivity culture – HR systems – Social relationships	– Legislative rigidity – isolation – control of productivity – IT emergency – Infrastruct. costs	– Reliability of the infrastructure (connection speed) – Lack of space at home (for personal office)	– Reliability of the infrastructure (connection speed) – Lack of space at home (for personal office) – Trade Unions
Main Facilitators	– Sponsorship – IT culture – Intranet and HR ERP	– IT culture – Personal reasons (geographical dispersion)	– Personal reasons – Internal IT syst. and culture	– Sponsorship – IT culture – Intranet, HR ERP – Business Centre
Project Result by Level	Legitimacy at market level; Employee satisfaction; Company saves on real estate costs	Employee satisfaction; Enhancement of appeal in the job market (employer branding)	Employee satisfaction; Company legitimation among clients	Results expected to reflect those of IBM

Source: our elaboration

Table 2. Rational versus normative framework adoption: operationalisation

	IBM Mobile Project	I.Net Teleworking Systems	Unisys Mobile Project (Phase 1)	Unisys Agile Program (Phase 2)
Focus on outputs	10	5	8	9
Focus on outcomes	10	2	2	10
Focus on impacts	2 in advance 10 as results	9 in advance; 0 as results	8 in advance; 1 as results	5 in advance ? as results

Legend: scale: from 1 = low to 10 = high   *Source: our elaboration*