

THE IMPACT OF TECHNOLOGY ON EMPLOYEE JOB STRESS, EMPLOYEE JOB SATISFACTION, & EMPLOYEE MOTIVATION AN EMPIRICAL STUDY ON THE EDUCATION SECTOR

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ABSTRACT

This study assessed the differences and relationship between the level of teachers' job stress, job satisfaction and job motivation. We adapted a questionnaire from previous studies and it was a self-administered questionnaire and through convenience sampling technique the data was collected. While the data for the study was analyzed using multiple statistical procedures. The survey results revealed that teacher related sources of job satisfaction. The results reveal a crowd out effect due to the direct supervision of workers and of time pressure that can badly influence the provision of the effort by employees. Conversely, positive incentive mechanisms such as career concern strengthen, through the crowd in effect, intrinsic motivations and the level of effort to work, create and transfer knowledge we had 142 usable questionnaires for further analysis. Most of the respondent gave the positive and significant results which show that impact of technology have a significant role on the job satisfaction, job stress and job motivation. Seem to have a greater impact on teaching performance, as teachers are also dissatisfied with the educational policies and administration, pay and fringe benefits, material rewards and Advancement.

Keywords: Technology Impact, Employee Motivation, Education Sector, Job Satisfaction.

INTRODUCTION

People of this generation often simultaneously text message, watch TV, download music, update their social networking site, and do their homework. They are always connected and constantly on (2005). These students learn through experience and hands-on activities. They value collaboration, social networking, and having input into how they learn (Ramley & Zia, 2005). Unlike students before them, they often type their names before they can print. They look for digital information paths (such as Google) rather than traditional texts (encyclopedias or dictionaries) (Weiler, 2003). Their ability to read visual and visual-spatial images is highly attuned due in part to video game play (Oblinger, 2005). Their desire for connectivity, instant feedback, and constant

interaction creates a dichotomy between how teachers want to teach and how this generation wants to learn (Oblinger, 2005). This study discloses the impact of stress on employees of organizations regardless of any discrimination of male and female employees, kind of organization, and department (Bashir, Asad 2007). Stress is basically is a mental strain from the internal or external stimulus that refrains a person to respond towards its environment in a normal manner. These stress levels can be internal or external from the doctors, from their personal lives or professional lives (Khuwaja, Ali Khan et al, 2002). "The theories of Herzberg and Hackman & Oldham are chosen, because they are the leading theories regarding job motivation. The key role of employee

motivation in organizations has long been acknowledged in the relevant organizational behavior literature” (O’Reilly, 1991). “While it is generally better for people’s mental health to work (rather than not) because unemployment has been linked to depression, anxiety and even suicide” (Blakely et al., 2003), “it is also clear that organizations (and employers) need motivated employees to achieve in any given goals set” (Smith, 1994). Employees in the following ratios reported that their job is source of large amount of stress they experienced, 33%, and 77% articulated that they remain always or sometimes in stress during last 12 months, 23% reported that rarely experienced stress during their job. Many workers express that their job is prominent source of stress in their life but reduced workload, improve management and supervision, better pay, benefits, and vacation times can reduce the stress among employees (Thomson, 2006). “The National Research Council and the Institute of Medicine (2004) report on fostering high school students ‘motivation to learn argued that motivation is a key factor in the success or failure of education. At the forefront of technological shifts in curriculum is the promise that students want to use computers and are motivated to learn because technology is more engaging than conventional approaches. Motivation is traditionally defined as learner-interest, persistence, attention, action, and enjoyment” (Peacock, 1997). Educators are —painfully aware that students will only seek information and learn if they are motivated to do so (Weiler, 2003).

Essentially, human-technology interaction is an information-processing task. In most cases during an interaction with technology the user is required to search for and identify displayed information, select responses based on this information, recall commands and operating procedures associated with those responses and execute the response (Protor & Vu, 2003).

Several studies (e.g., Czaja & Sharit, 1999, 2001) have shown that cognitive abilities such as working memory, attention and spatial abilities are important predictors of performance of computer-based tasks. Thus, ultimately age-related changes in cognition may have a negative impact on access and use of technology.

Females are loved to use those products which make their lives easy. Along with these things females also know how to run the TV, Laptops, Mobile and other things. Its another thing females are less master of these things like laptops, mobile as compare to male. Using of internet Female and Male both are using but females mostly used social networking websites as compare to males because females are love to talk more and more this thing is common in all the world females.

They are love to talking all the time as BBC December 2012 Survey 78% women’s are using internet for social networking websites & 20% women are using internet to see the movies, Beauty tips programs and cooking programs. So you can easily understand what the purpose of women using internet is. We allow for two technologies, old and new, for the production of each home good. For general household goods, both technologies require the spouse’s time and home durables. The new technology is more durables-intensive than the old, as in (Greenwood et.al. 2005).

1. Literature Review

We are studding the “Impact of Technology on Job Stress, Job Satisfaction and Job Motivation in Education Sector”. There are five variables of our study Job Stress, Job Satisfaction, Job Motivation, Age and Gender. We are studding the impact of technology on job stress, satisfaction and motivation and how age and gender effect the adoption of technology.

A mainstream group of employees articulated that their organizations did not care for its employees (Meneze 2005) and sometimes employees don’t like to work with their organizations indicating high levels of stress among them and majority were between the age brackets of 26-35 years. Misfit with organization, no part in decision making, were reported main causes of stress as well no control over work environment, personality traits, lack of relaxation along with ambiguous rules affect employees performance (Meneze 2005).better managed employees are more cooperative and serve as assets for an organization and when their stress is ignored by the employer the results are increased absenteeism, cost, low

productivity, low motivation and usually legal financial damages (Czaja,1999).

Employees in the following ratios reported that their job is source of large amount of stress they experienced, 33%, and 77% articulated that they remain always or sometimes in stress during last 12 months, 23% reported that rarely experienced stress during their job. Many workers express that their job is prominent source of stress in their life but reduced workload, improve management and supervision, better pay, benefits, and vacation times can reduce the stress among employees (Thomson, 2006). Stress is a universal experience in the life of each and every employee even executives and managers.

It is estimated that about 100 million workdays are being lost due to stress and nearly 50% to 75% disease are related to stress (Bashir, 2007). Stress results in high portion of absence and loss of employment. The ratio of stress affected in organization are increasing on alarming rate which affects both the employee performance and goal achievement (Treven 2002). Stress has many definitions it is a part of both social and concrete sciences.

Occupational stress inadvertently consequences low organizational performance (Elovainio et al. 2002), Job stress although has belittling impact on any organization and individual's performance but can shape dire consequences when related to health care. (Mimura e.t al. 2003). Job stress is considered rising and has become challenge for the employer and because high level stress is results in low productivity, increased absenteeism and collection to other employee problems like alcoholism, drug abuse, hypertension and host of cardiovascular problems (Meneze 2005).

Foreign-born workers are more likely to report stress caused by having to learn new computer skills than those born in Canada (18.8%vs 16.3%). This may have something to do with the language barrier foreign-born workers face, especially among those newly arrived. Stress caused by the need to learn new computer skills does not appear to be related to where a worker lives (an urban vs. rural area or province), his/her work schedule(full-time relative to part-time), his/her employment type (paid work, self-employed with paid help, or own-account

self-employed). But it does vary significantly with where a worker works in terms of industry and occupation. It is less likely to report this stress in accommodation and other services (around 14%), markedly more likely to experience it in education, management, finance and public administration (all over 18%), than in other industrial sectors (at 15%) (Khuwaja, Ali Khan e.t. al 2002).

As stress affects the performance of the people working in any type of organization, same is the case with air force military pilots. According to a study of air force pilots of Iran job stress reduces job satisfaction. (Dr.Khodabakhsh Ahmadi, 2007). Occupational stress has a direct negative effect on job satisfaction (Noordin Yahaya, 2010).

In general, job stress has been viewed as a predecessor of job satisfaction, and the two constructs have been treated as related yet distinct (Smith, 2002). According to Stamps & Piedmonte (1986) job satisfaction has been found significant relationship with job stress. Organization factors such as workload and working condition are negatively related with job satisfaction (Vinokur, 1991). The lack of satisfaction can be a source of stress, while high satisfaction can lighten the effects of stress it means that both of job stress and job satisfaction are interrelated (Fletcher & Payne 1980).

2.1 Impact of Technology on Job Satisfaction

The fast using of technology in different firms in the world is less costly then employees but the employees who works their feel in convenience because they feel threat may be some day a machine can replace them. On the other side Education Sector Several works present evidence supporting a positive effect of ICT on productivity at the Education level (Greenan and Mairesse, 2000, Czaja and Sharit, 1999, Lichtenberg, 1995). Moreover, the diffusion of ICT has been combined with changes in the education structure of country's with the increasing use of so called high performance work education institutes (Greenan and Mairesse, 2000, Osterman, 2000). Recent empirical studies underline that ICT combined with education system have positive and significant effects on productivity at the student education level

(Bertschek and Kaiser, 2004, Lichtenberg, 1995, Vinoku, 1991, Noordin Yahaya, 2010). In our initial research, we analyse the consequences of Internet use at work on motivations of workers with the control of the incentives given by firms and the organizational workplace practices. Firms need to manage efficiently their relationships with workers in order to solve, at least partially, agency problems and beyond, to favor the creation and transfer of knowledge, which are necessary for firms' productivity and competitiveness. Our econometric results are obtained with data at the individual level collected in the Euro-zone countries of the 2005 wave of the EWCS (European Working Conditions Survey).

Thus, the results reveal a crowd out effect due to the direct supervision of workers and of time pressure that can badly influence the provision of the effort by employees. Conversely, positive incentive mechanisms such as career concern strengthen, through the crowd in effect, intrinsic motivations and the level of effort to work, create and transfer knowledge.

2.2 Impact of Technology on Job Motivation

Technology is the basic need of the employees of education sector. Because they deal with knowledge and knowledge is updated on daily basis. Two types of motivation (1) intrinsic motivations come from within the worker in bond with his job. Workers, who find their work interesting, will enjoy it and can consequently choose to do good work for its own sake. So they are supposed to be intrinsically motivated. Following Frey (1997), external interventions, that is to say incentives, can increase or "crowd in" intrinsic motivations or, quite the opposite, can diminish or "crowd out" these motivations and beyond affect the provision of effort. In the first, workers feel that their involvement and competence are appreciated by employers (possibilities of promotions). (2) Extrinsic motivation comes from outside the person (Osterman, 2000, Frey and Jegen, 2001). Thus, we can include both the concept of external pressure of the group and the concept of reciprocity (Thomson, 2006) in this definition. According to Thomson 2004, "workers who care about the views of other workers are subject to peer pressure". This

external pressure (Mimura, C and Griffiths, 2003) most likely appears in firms that use profit sharing like in teams, because each worker's effort negatively affects all other worker's income or well-being (as shirking requires more effort from others).

2.3 Impact of Age on Adoption of Technology

Age is major demographic trends underscore the importance of considering adaptation to technology by older adults: the aging of the population and rapid dissemination of technological innovations (UCLA Internet Report – (Treven, Smith et.al. 2002).

A commonly held belief is that older people are resistant to change and unwilling to interact with "high tech" products such as computers. To make technology available to people of all ages and abilities a challenge for the research and design community is to better understand: (1) why technology is difficult to use when it is; (2) how to design technology for easier and effective use; and (3) how to effectively teach people to use and take advantage of technologies that are available (Osterman, 2000). This paper will discuss the implications of age-related changes in abilities that may have an impact on technology access. The focus will be on cognitive processes.

Age-related changes in vision have implications for the design of written instructions and manuals and display screens. Many older adults also experience some decline in audition and changes in motor skills, including slower response times, declines in ability to maintain continuous movements, disruptions in coordination, loss of flexibility, and greater variability in movement (Lichtenberg.1995).

The literature also suggests that there is a certain amount of reserve capacity held by older adults and that the performance of older people can be improved through training and design manipulations. For example, a recent study by Shari and colleagues (Weiler et al., 2003) found that use of a graphical aid improved the ability of older people to navigate telephone menu systems. Investigators have also shown that the nature of the training protocol impacts on learning success for older people. Mead and colleagues (Mead & Fisk, 1998) in a study examining training for ATM machines found

training interactions with age such that there were greater gains for older adults for procedural (“action”) versus conceptual training.

2.4 Adoption and use of technology with Gender discrimination

The adoption of technology on the basis of gender easily measure with general household good is valued at all ages and corresponds to activities such as meal preparation, childcare, cleaning, yard work and other household (Frey and Jegen 2001). The infant good represents those activities strictly connected to the presence of children from birth to age of 6 years most of toys are technology based (Bertschek and Kaiser, 2004). The household things like refrigerator, Microwave, Washing Machine, Split, Dryer, Juicer Machines etc. are technology based so female are using more technological things as compare to male. Male are using Laptops, TV, Mobile and game console (Mimura, C and Griffiths, 2003). So as compare to females male are using less technological goods.

For the new infant good technologies, the time price series is based on a price series for Similar, the Worst commercial humanized infant formula in the U.S. that we construct from advertisements in historical newspapers

2. Experimental Work

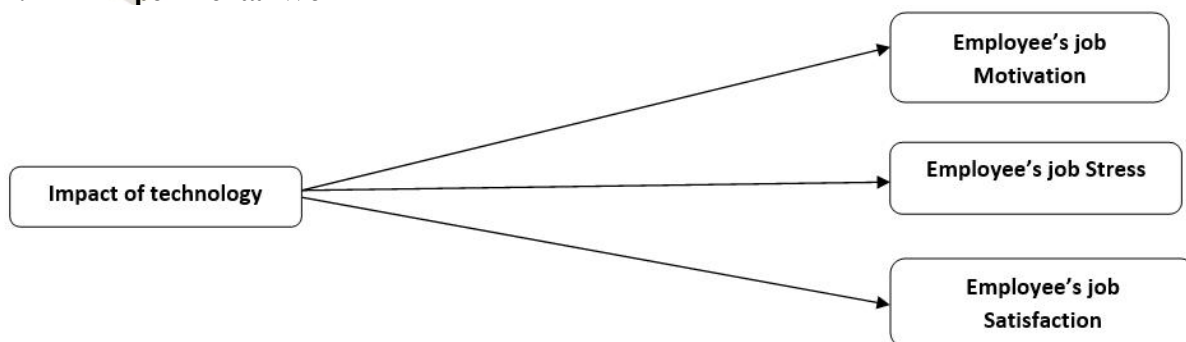


Figure 1: Impact of employee’s motivation, job stress & job satisfaction on employee’s with mediating role of technology.

The sampling frame is not specific all the People who belongs to different Professions are our sampling frame. The group plans to fill 142 questioners roughly. The sample size of our project is 142. Male are 100 and Female are 42. There are no primary sampling unit and secondary sampling units. We fill our Questionnaires from different Peoples. This is basically questionnaires survey. This survey is a combination of Nominal, Ordinal and Scale.

for three major U.S. metropolitan areas. We match technology adoption rates, male and female home hour’s conditional on participation and cohort-specific labor force participation rates of married women in 1920. We then simulate the transition in our initial research and find several experiments has taken place in near past to evaluate the impact of each force in isolation.

The rise in female participation in using different technological things resulting from the mechanization of home work stems from the assumption that only women can engage in home production. The most vital problem in a company is its Job Performance. This made researchers to research more and more (Shekrkon, 2001). They believe that performance is total expectation of organization from separate behavior samples of each person during specific period of time (Protor, Vu et al, 2003). Job performance is a set of behavior which person show in relation to his job or, in other word, amount of efficiency gained due to the person job type (training, producing or servicing) (Rashidpoor, 2000). Job performance is the same person efficiency in his job according to his legal tasks and show amount of effort and successfulness of that person (Peacock et.al, 1997).

Sampling Method:

The group divided multi area stage sampling. We are two group members. We divided 75 questioners filled by every person of the group. Our group members filled these questioners from different places like industrial zone , iiii students & teachers, Quaid-e-Azam university students & teachers , Numl students & Teachers, Bahria University Students and teachers, Fast

university teachers and students, Academic staff, self-employed, and others.

Sampling Procedure:

We conduct our survey through questionnaires in which Number of People belongs to different categories such as No of Professionals =75, No of College/University Students=60, No of Self-Employed=10, and those who belongs to other profession not mentioning in the questioners No of other Profession not mention in the questionnaire. Experience 0-2 years=40, 2-4year=45, 5-7year=39 and 8-10 year=18. Education level Bachelors=41, Masters=66, MS/MPhil=31 and PHD=4

3. Result and Discussion

We select the method of surveys as questioners. For this purpose we printed 150 copies and distributed some questioners are missing in the end we filled only 142 questioners. Our group chooses the primary and secondary data collection mode we just choose the data randomly not a specific group and age and professions. We strived to meet at least 90% Significance for all of our tests. All of our analysis meets the 90% significance level although we realize not everything with a high significance level is actually relevant. Unless otherwise noted we stated only significant and relevant results. There liability of selected questions is 70%.

4.1 Correlation analysis

Descriptive Statistics

	Mean	Std. Deviation	N
Age	2.75	.746	142
Gender	1.30	.458	142
Education	1.99	.790	142
Experience	2.25	1.005	142
What is your Status	1.65	.610	142

First we check all the data for reliability scores and these are mentioned in the above table. The descriptive statistics are also mentioned in the table. The correlation analysis suggest that there are strong and significant correlation existing among the

independent and dependent variable while negative correlation are observed between age and other variables.it is in accordance to the past literature and supportive to our suggested hypotheses. All these analysis are run over spss 17.

4.2 Regression and Anova Test

		Age	Gender	Education	Experience	What is your Status
Age	Pearson Correlation	1	.236**	.608**	.744**	.635**
	Sig. (2-tailed)		.005	.000	.000	.000
	N	142	142	142	142	142
Gender	Pearson Correlation	.236**	1	.306**	.303**	.223**
	Sig. (2-tailed)	.005		.000	.000	.008
	N	142	142	142	142	142
Education	Pearson Correlation	.608**	.306**	1	.603**	.549**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	142	142	142	142	142
Experience	Pearson Correlation	.744**	.303**	.603**	1	.536**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	142	142	142	142	142
What is your Status	Pearson Correlation	.635**	.223**	.549**	.536**	1
	Sig. (2-tailed)	.000	.008	.000	.000	
	N	142	142	142	142	142

** . Correlation is significant at the 0.01 level (2-tailed).

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.177 ^a	.031	.024	1.241	.031	4.508	1	139	.035

a. Predictors: (Constant), Age

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.943	1	6.943	4.508	.035 ^a
	Residual	214.050	139	1.540		
	Total	220.993	140			

a. Predictors: (Constant), Age

b. Dependent Variable: Js4

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.182 ^a	.033	.026	1.215	.033	4.800	1	140	.030



ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.943	1	6.943	4.508	.035 ^a
	Residual	214.050	139	1.540		
	Total	220.993	140			

a. Predictors: (Constant), Age

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ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.084	1	7.084	4.800	.030 ^a
	Residual	206.634	140	1.476		
	Total	213.718	141			

a. Predictors: (Constant), Age

b. Dependent Variable: Job Satisfaction⁷

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Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.178 ^a	.032	.025	1.227	.032	4.560	1	140	.034

a. Predictors: (Constant), Age

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.870	1	6.870	4.560	.034 ^a
	Residual	210.940	140	1.507		
	Total	217.810	141			

a. Predictors: (Constant), Age

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.943	1	6.943	4.508	.035 ^a
	Residual	214.050	139	1.540		
	Total	220.993	140			

a. Predictors: (Constant), Age

b. Dependent Variable: JobMotivation2

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.175 ^a	.031	.024	1.280	.031	4.441	1	140	.037

a. Predictors: (Constant), Age

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.281	1	7.281	4.441	.037 ^a
	Residual	229.508	140	1.639		
	Total	236.789	141			

a. Predictors: (Constant), Age

b. Dependent Variable: JobMotivation6

➤ **Gender**

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.210 ^a	.044	.037	1.165	.044	6.462	1	140	.012

a. Predictors: (Constant), Gender

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.778	1	8.778	6.462	.012 ^a
	Residual	190.159	140	1.358		

Total	198.937	141			
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a. Predictors: (Constant), Gender

b. Dependent Variable: Job Satisfaction8

➤ **Education**

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.194 ^a	.038	.031	1.237	.038	5.471	1	140	.021

a. Predictors: (Constant), Education

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.365	1	8.365	5.471	.021 ^a
	Residual	214.065	140	1.529		
	Total	222.430	141			

a. Predictors: (Constant), Education

b. Dependent Variable: Job Satisfaction4

➤ **Status**

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.155 ^a	.024	.017	1.268	.024	3.414	1	139	.067

a. Predictors: (Constant), What is your Status

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.488	1	5.488	3.414	.067 ^a
	Residual	223.449	139	1.608		

Total	228.936	140			
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a. Predictors: (Constant), What is your Status

b. Dependent Variable: Js7

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.205 ^a	.042	.035	1.234	.042	6.164	1	140	.014

a. Predictors: (Constant), What is your Status

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.380	1	9.380	6.164	.014 ^a
	Residual	213.049	140	1.522		
	Total	222.430	141			

similar in spite of the large

a. Predictors: (Constant), What is your Status

b. Dependent Variable: Job Satisfaction4

The study of different factors are that influence for the adoption of technology in Education sector. To determine which factors affect the Impact of technology on education sector hypotheses were identified and analyzed. Although the sample was relatively small, the results seemed to be fairly conclusive in terms of isolating the three most important factors which are likely to influence the “Impact of technology on education sector”. These factors are discussed, the Job Stress, the Job Satisfaction and the Job Motivation.

4. Conclusion

Internet use influences workers’ motivations depending on their identity. We conduct our analysis on a representative sample of individuals working in one of the country of the Euro-zone surveyed in 2005 in the framework of the EWCS. We estimate, first, ordered Probit models on each motivation and, second, a multivariate ordered Probit model that permit to evaluate the effect of Internet use on the probability of workers of being intrinsically or extrinsically motivated, taking into account the potential correlations between workers’ motivations. The results obtained with the two methods are very

correlations between motivations. The results about Internet use and motivations show that by giving the possibility to use Internet at the workplace, the firm creates an enriching work environment that influences positively intrinsic motivations of workers. The results reveal a crowd out effect due to the direct supervision of workers and of time pressure that can badly influence the provision of the effort by employees. These results are also observed for the subsample of insiders who share the preferences of their employers. Concerning outsiders, it appears that offering the access to the Internet to these workers does not influence their motivations. Finally, we need to notice that we are conscious of the difficulties to disentangle ICT and innovative work practices in studying what can encourage individuals to work in the interest of the firm. Further research need to deepen the joint effect of ICT and organizational workplace practices and also the impact on effort, thanks to more detailed data concerning workers’ performance.

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