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Giving Voice to Employees and Spreading Information within the Firm: the Manner Matters

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Abstract

Economists are paying increasing attention to "factors" in job satisfaction. Job satisfaction can affect productivity, effort, absenteeism, and quits. This paper analyzes data from the "Working in Britain, 2000" questionnaire; the results confirm the effects of individual features on job satisfaction, as highlighted in previous studies. The analysis shows that job satisfaction can be enhanced by spreading information within the organization and by giving voice to employees, but the management must choose communication strategies perceived as reliable by the employees.

JEL classification: J28,J53, D23.
Keywords: Job satisfaction, employees' voice, procedural utility, gift exchange, Human Resource Management.

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1 Introduction

Economists are paying increasing attention to "factors" in job satisfaction. Job satisfaction can affect productivity, effort, absenteeism, and quits. There is an obvious interest in studying how to organize work environments in a way that increases employee's satisfaction and quality of life.

Studies on job satisfaction and productivity gains are based on the idea that a satisfied worker is likely to give an extra-effort (or to avoid absenteeism and quits). Links between job satisfaction and quits have been shown by Freeman (1978), Akerlof et al. (1988) and Parasuraman and Futrell (1983). McNeily and Goldsmith (1991) report a tendency for men and women to leave their current sales position because of dissatisfaction with different aspects of their jobs. Levine and Tyson (1990) suggest that increased worker participation can lead to performance improvements. Ichniowsky et al. (1997) find that participatory practices increase productivity.

Labor relations can be seen as a gift-exchange in which employees appreciate good intentions on the part of the principal towards building an environment for a satisfying job, and respond by "working well". The idea is traceable to Akerlof (1982), who started a research program that has grown as a consequence of results from experimental economics. These results have shown that the concept of self-interest is not enough to understand agents' behavior in laboratory experiments simulating situations of strategic relations and that we must consider, at least, altruistic motivations and reciprocity. This last concept is an extension of the gift exchange concept: reciprocity means that "in response to friendly actions, people are frequently much nicer and much more cooperative than predicted by self-interest; conversely, in response to hostile actions they are frequently much more nasty and even brutal"[2]. Experimental results have confirmed, through the reciprocity concept, the "gift exchange tendency" and the importance of studying the determinants of job satisfaction. From this point of view, enhancing job satisfaction could be a good solution to "moral hazard" problems in labor relations, because it is possible to suppose that the higher is a worker's satisfaction, the higher his attention to the firm's efficiency[3]. Inside firms and organizations,

[2]Fehr and Gatcher (2000).

[3]This theory requires that the utility function includes the reciprocity concept. The literature offers some support for this theory: Rabin (1993), Fehr and Schmidt (1999), Bolton and Ockenfels (2000).

problems caused by information asymmetry (i.e. moral hazards) could be efficiently coped with by adopting governance models based not only on material incentives and monitoring, but on psychological motivations as well. The goal would be to encourage cooperation when it is possible, in such a way as to support information exchanges and economize on information and transaction costs[4].

Both material incentives and psychological motivations affect the level of utility enjoyed by employees in labor relations. This paper includes some management tools among the possible determinants of job satisfaction, such as how information is spread within the firm and how workers' opinions are collected.

If the chance of receiving reliable information or voicing their own opinions increasea workers satisfaction, then they can respond (via Gift Exchange) with extra-effort. However, different channels may imply different results, because:

- experimental results suggest that people evaluate and appreciate the "procedure" by which something is accomplished. The literature refers to this notion as "procedural utility", which means, for example, that it is not only important how much one is paid, but also the way in which the wage is given (i.e. if payment is based on trust or incentives) (Benz and Stutzer, 2003). In determining their effort, employees could consider not only *if* manager listen to their voices, but also *how*.
- some management tools could better receive employees claims (or spread information). Therefore, they can be more effective in creating a satisfactory work environment. This fact, in turn, can increase job satisfaction.

The volume of literature on "procedural utility" is increasing rapidly. Benz et al. (2004) present a complete introduction to this concept and Frey and Stutzer (2005) also offer a useful analysis.

Benz and Stutzer (2003) focus on the fact that utility from pay is not only influenced by economic outcomes (pay levels), but also by the way by which the pay is determined ad given. The results of their empirical analysis tie in with the notion of procedural utility, because they find that being consulted on pay issues contributes to employees' well-being, as measured by satisfaction with their pay. In this case, the procedural factor is the frequency

[4]See, for example, Bowles and Gintis (1998), Bowles and Gintis (2002).

of being asked on pay issues and the dependent variable is pay satisfaction. In this paper, I consider two different possible channels of "procedural utility", not regarding pay methods: the way information is spread in firms and the way the employees' voice is organized. Tortia (2008) empirically confirms the idea that trust relations and fair procedures increase workers well being, but he considers procedural utility as fairness with regard to pay, and not procedural utility as "voice" or "info" channels.

The aim of this paper is to verify empirically whether giving voice to employees and spreading information within the firm increase job satisfaction, while thoroughly analyzing if different means imply different consequences.

2 Searching for factors in job satisfaction

Past studies have already shown that job satisfaction is determined not only by material incentives (i.e. wages and security). Actually, most empirical studies do not find a significant correlation between wage and job satisfaction. Groot and Van den Brink (1999) assert that this is due to a preference drift, resulting from an adaptation to higher wages. We can briefly sum up previous results on the most studied factors:

- **Gender**. A number of studies have demonstrated that women are more satisfied with their job than men[5]. The main reason for this finding could be that men and women have different expectations of their jobs.
- **Age**. Sloane and Williams (2000), Clark and Oswald (1996), Blanchflower and Oswald (2004) have observed a U-shaped relationship between age and job satisfaction.
- **Marital status**. People who live with a partner seem to be more satisfied than singles, probably because married individuals are generally happier with their lives[6].
- **Education**. Clark and Oswald (1996), Sousa Poza and Sousa Poza (2000) report that more educated people are likely to be less satisfied with their jobs, probably due to differing expectations as was the case with gender
- **Income**. Although wage levels are often not correlated with job satisfaction, some studies show that relative wage influences job satisfaction,

[5]Clark (1996, 1997), Groot and Van den Brink (1999).
[6]Blanchflower and Oswald (2004), Clark (1996).

as observed by Hamermesh (2001) and Shield and Price (2002).

- **Establishment size**. Some studies show that people are more likely to be satisfied in smaller establishments[7].

The study of the variables contributing to job satisfaction can be improved by focusing on the findings presented in the introduction: job satisfaction is extra-material and it is necessary to search for other possible determinants by studying psychological variables. The focus is on how different management features can have different effects on job satisfaction. The next section presents the data set and the methodology used for the analysis.

3 Data and methodology

The analysis was carried out using a British data set: "Changing Employment Relationship, Employment Contracts and the Future of Work Survey (Working in Britain 2000)". This project was designed to identify changes in employment relationships and the contractual basis of employment and to examine their consequences for the future of work. The survey is based on a questionnaire covering some subjects that are useful for the goals of this paper, including: current main job details, organization of work, information and communications, training, benefits and working time, job satisfaction and organizational commitment, job security and personal and family details.

The data's technical features are briefly shown in table 1 as they are presented in the UK Data Archive site.

An ordered probit model was used for estimation. This method is appropriate for analyzing categorical ordered data, such as a questionnaire data set. In an ordered probit, an underlying score is estimated as a linear function of the independent variables and a set of cut points. The probability of observing outcome i corresponds to the probability that the estimated linear function, plus random error, is within the range of the cut points estimated for the outcome:

$$Pr(outcome_j = i) = Pr(\kappa_{i-1} < \beta_1 x_{1j} + \beta_2 x_{2j} + ... + \beta_k x_{kj} + u_j \leq \kappa_i)$$

where u_j is assumed to be normally distributed. The model estimates the coefficients $\beta_1, \beta_2, ...\beta_k$ and the cut points $\kappa_1, \kappa_2, ..., \kappa_{I-1}$ where I is the number

[7]Bauer (2004), Idson (1990)

Table 1: Dataset features

Coverage
Dates of Fieldwork: June 2000-January 2001
Country: Great Britain
Spatial Units: Standard Regions
Observation Units: Individuals
Kind of Data: Numeric data; Individual (micro) level
Universe Sampled
Location of Units of Observation: National
Population: Working individuals aged 20-60 in Great Britain during 2000
Methodology
Time Dimensions: Cross-sectional (one-time) study
Number of Units: 3815 (target) 2466 (obtained)
Sampling Procedures: Multi-stage cluster sample
Method of Data Collection: Face-to-face interview; Self-completion

of possible outcomes and κ_0 is taken as $-\infty$ and κ_I as $+\infty$.

In ordered probit models, coefficient signs have the same meaning of a standard regression, which is not true for coefficients values. To understand the extent of the impact of changes to the independent variable on the dependent one variable, it is necessary to compute marginal effects. Finally, the analysis uses the weight furnished in the data-set: it considers age, sex and social class.

The dependent variable, Job Satisfaction, was obtained by the question: "All in all, how satisfied would you say you are with your job?", with possible answers ranging from 1 (completely satisfied) to 7 (completely dissatisfied); the dependent variable actually used in the analysis was built by reversing the order of the answers in questionnaire and it represents job satisfaction as increasing from 1 to 7.

Among independent variables there are regressors related to **Individual Characteristics**:

- *Female*, 1 female, 0 male;
- *Married*, 1 married, 0 single, divorced or widowed;

- *Age* and Age^2, to verify the U-shaped relation reported by previous studies;

A negative correlation between union membership and job satisfaction is widely confirmed by past studies. The causal direction of this link is unclear; Bryson et al. (2004) found robust arguments to support the endogeneity hypothesis, so I prefer to exclude "union membership" from the analysis.

As suggested by previous studies, wage rates turn out to be uncorrelated with job satisfaction, so I do not include it in the final regression, but I use the relative wage indicator:

- ***Relative Wage***: 1 (my wage is on the low side), 2 (neutral), 3 (my wage is on the high side).in the analysis this variable is recoded in three dummy cases where the reference case is the first category[8].

The dissemination of information from the firm's management to employees could generally be positively correlated with job satisfaction, but if procedural utility matters, employees could perceive different means of information spreading differently, specifically with respect to their reliability. Among the regressors there are some dummies concerning **how employees are informed** about what is occurring in the organization, each one indicating (assuming value 1) whether the corresponding method is implemented in the interviewee's work place:

- *Info notice board*;
- *Info news sheet*;
- *Info magazine*;
- *Info web site*;
- *Info e-mail*;
- *Info meetings with management.*

The questions used to build the "info" variables are the following: "Does your employer give you news of what is happening in the organization by any method on this card?" (notice board, email, etc.) and "Does management organize meetings where you are informed about what is happening in the organization?".

[8]This variable comes from a specific question on the questionnaire and it is not inferred from interviewee's statements about their income.

The same observations made for info spreading channels can be used for the subject of the employees' voice: the more chances for voicing their opinions, the greater their satisfaction. In this case, firms can implement different voicing forms, and some of them could be perceived differently by workers and could be more or less effective than others. The analysis includes three dummies on **Channels of Voice**:

- *Meetings with management*;
- *Employees groups*;
- *Formal suggestion schemes.*

The questions used to build the "voice" variables are: "management hold meetings in which you can express your views about what is happening in the organization", "organizations have groups of employees who meet regularly to think of improvements that could be made within the organization. Are you involved in such a group?", "your employer have a formal suggestion scheme?".

The last group (**Job General Features**) includes all the remaining regressors:

- *Pay negotiable* is a dummy that indicates whether pay was directly contractible between the worker and superiors at the beginning of the relationship;
- *Public sector*, 1 yes, 0 no;
- *Firm size* it is a categorical variable: 1 (1-10 employees), 2 (10-50), 3 (50-499), 4 (500-990), 5 (1000+); this variable will be split into dummy cases and the reference case is the smallest dimension.

In table 2 variables means and standard errors of the all data set are listed.

4 Results

Table 3 shows the results of the ordered probit. The variables chosen for the analysis exclude some observations (among them all of the self-employed), and 2.010 observations were used.

All results concerning factors related to **individual characteristics** confirm the findings of past studies (the U-shaped impact of age, the greater

Table 2: Data description

Variable	**Obs.**	**Mean**	**Std. Dev.**	**Min**	**Max**
Job Satisfaction	2456	5.341205	1.115722	1	7
Relative Wage	2122	1.769086	.6044203	1	3
Pay Negotiable	2128	.2880639	.4529675	0	1
VOICE-meetings with management	2129	.6848286	.4646933	0	1
VOICE-employees groups	2129	.3043682	.4602474	0	1
VOICE-formal suggestion scheme	2128	.3468045	.4760647	0	1
INFO-meetings with management	2130	.7431925	.4369749	0	1
INFO-notice board	2111	.5528186	.4973202	0	1
INFO-newssheet	2105	.464133	.4988304	0	1
INFO-magazine	2114	.4063387	.4912654	0	1
INFO-website	2092	.209369	.4069555	0	1
INFO-emails	2109	.3522997	.4778	0	1
Public Sector	2099	.3006193	.4586366	0	1
Skill	2460	1.513821	1.152914	0	3
Firm Size	2121	2.60396	1.223074	1	5
Married	2466	.6634225	.4726348	0	1
Female	2466	.486618	.4999223	0	1
Age	2463	39.689	10.53904	20	62

satisfaction of women, married and non skilled workers). I checked for the impact of the number of children in household, as some previous work has hypothesized a relationship which I did not find.

The **General Features** of a job have the "expected" signs. Larger establishments imply lower satisfaction. Working in the public sector seems to be associated with a higher satisfaction; it is possible that public sector workers are more likely to have chosen their vocation for non-pecuniary reasons (i.e. in health or education services) [9]. Allowing employees to negotiate their pay seems to positively affect job satisfaction. These results reflect the concept that the more control individuals have over their own situations, the greater the satisfaction. The correlation between relative wage and satisfaction confirms previous findings in the literature.

[9]For a study on effects of different organisational forms (public sector, for-profit, non-profit) on job satisfaction, see Benz (2005).

Table 3: Ordered probit results (n=2010)

Dependent Variable: Job Satisfaction

	Regressor	**Coeff.**	**Std. Err.**	$P > \|z\|$	**signif.***
	Age	-.0433562	.0189021	0.022	⋆⋆
	Age^2	.000532	.000236	0.024	⋆⋆
Individual	Married	.1066829	.0567597	0.060	⋆
Characteristics	Female	.2705765	.052162	0.000	⋆⋆⋆
	Education; O-level	-.2649401	.0759884	0.000	⋆⋆⋆
	Education; A-level	-.3042593	.0985875	0.002	⋆⋆⋆
	Education; degree	-.2618483	.0833798	0.002	⋆⋆⋆
	Firm size 10-50	-.0966961	.0756646	0.201	
	Firm size 50-499	-.2250579	.0830135	0.007	⋆⋆⋆
General	Firm size 500-999	-.1715377	.1140874	0.133	
Features	Firm size 1000+	-.2803292	.1083192	0.010	⋆⋆⋆
	Public sector	.2167845	.0614675	0.000	⋆⋆⋆
	Pay negotiable	.1549217	.0596764	0.009	⋆⋆⋆
Relative	Medium	.4934695	.0583914	0.000	⋆⋆⋆
Wage	High	.6550636	.1066153	0.000	⋆⋆⋆
	Notice board	.0240063	.0588188	0.683	
	News sheet	-.1444419	.0586484	0.014	⋆⋆
Info Spreading	Magazine	.001064	.0619114	0.986	
Channels	Web site	-.0469081	.0753492	0.534	
	E-mail	-.0369417	.0655392	0.573	
	Meetings with management	.2153736	.0900913	0.017	⋆⋆
	Meetings with management	.2667542	.0868142	0.002	⋆⋆⋆
Channels of Voice	Employees groups	.1570668	.058529	0.007	⋆⋆⋆
	Formal suggestion scheme	.0737847	.0586489	0.208	

Wald $\chi^2_{24} = 230.20$, Prob> $\chi^2_{24} = 0.0000$; Pseudo $R^2 = 0.0481$
Base group: man, single, no education, low relative wage, pay not negotiable, firm size 1-10 employees, private sector, absence of voice or info spreading channels.
* significance: ⋆ 10%, ⋆⋆ 5%, ⋆⋆⋆ 1%

Finally, the results confirm that job satisfaction can be enhanced by the spread of **info** and by giving **voice** opportunities to employees. But they also signal that the means chosen by management could be perceived differently by workers and be more or less effective.

The spread of information through impersonal or "cold" means (i.e. writ-

Table 4: Marginal Effects

Job Satisfaction	**Pr(1)=.006**	**Pr(2)=.010**	**Pr(3)=.048**	**Pr(4)=.078**	**Pr(5)=.416**	**Pr(6)=.349**	**Pr(7)=.093**
Age	.0007**	.0010**	.0037**	.0043**	.0074**	-.0099**	-.0072**
Age^2	-.0022**	-.00001**	-.00004**	-.00005**	-.0001**	.0001**	.0001**
Married	-.0019*	-.0025*	-.0093*	-.0107**	-.0175**	.0247*	.0173*
Female	-.0045***	-.0061***	-.0229***	-.0268***	-.0461***	.0612***	.0454***
Education; O-level	.0049***	.0065***	.0236***	.0268***	.0418***	-.0616***	-.0421***
Education; A-level	.0069**	.0086**	.0297***	.0317***	.0401***	-.0736***	-.0433***
Education; degree	.0050**	.0066**	.0237***	.0266***	.0403***	-.0613***	-.0408***
Firm size 10-99	.0017	.0023	.0084	.0097	.0159	-.0223	-.0157
Firm size 50-499	.0042**	.0055**	.0201**	.0228***	.0354***	-.0525***	-.0355***
Firm size 500-999	.0034	.0044	.0159	.0176	.0253**	-.0408	-.0259*
Firm size 1000+	.0062**	.0078*	.0270**	.0291**	.0380***	-.0676**	-.0405***
Public sector	-.0033***	-.0045***	-.0175***	-.0210***	-.0396***	.0476***	.0383***
Pay negotiable	-.0024**	-.0033**	-.0126***	-.0156***	-.0279***	.0344***	.0269**
Relative Wage Medium	-.0096***	-.0124***	-.0443***	-.0495***	-.0756***	.1133***	.0782***
Relative Wage High	-.0060***	-.0092***	-.0390***	-.0534***	-.1473***	.1044***	.1505***
Info-Notice board	-.0004	-.0005	-.0020	-.0024	-.0041	.0055	.0040
Info-News sheet	.0024**	.0033**	.0123**	.0144**	.0244**	-.0330**	-.0239**
Info-Magazine	.0000	.0000	.0000	-.0001	-.0002	.0002	.0002
Info-Web site	.0008	.0011	.0041	.0047	.0078	-.0108	-.0077
Info-E-mail	.0006	.0008	.0032	.0037	.0062	-.0085	-.0061
Info-Meetings with manag.	-.0041**	-.0054**	-.0195**	-.0219**	-.0332***	.0506**	.0336**
Voice-Meetings with manag.	-.0050**	-.0067**	-.0241***	-.0271***	-.0412***	.0624***	.0418***
Voice-Employees groups	-.0024**	-.0034**	-.0129***	-.0154***	-.0282**	.0349***	.0273***
Voice-Formal sugg. scheme	-.0011	-.0016	-.0062	-.0073	-.0128	.0167	.0125

Base group: man, single, no education, low relative wage, pay not negotiable, firm size 1-10 employees, private sector, absence of voice or info spreading forms.
* significance: ⋆ 10%, ⋆⋆ 5%, ⋆ ⋆ ⋆ 1%

ten) might not be well received by employees and, probably, are even considered as a way to avoid telling the truth, as the *news sheet* result confirms. Conversely, workers appreciate information given "face-to-face" (*meetings*), probably because this method reduces the chances of lying and allows questions to be freely directed to the management. The same observations emerge for voice channels: employees seem to appreciate the opportunity to meet with other employees or management and talk directly with them. There is another possible interpretation of the data: the "chances to meet" are more effective than other channels of voice or info-spreading and they have indirect consequences on job satisfaction because they make a larger contribution toward building a satisfactory environment for workers.

Marginal effects (table 4) help to clarify the different impacts of management features, particularly from a quantitative point of view.

The interviewed workers showed a high level of job satisfaction, as descriptive statistics in table 2 exhibit (the mean is 5.4). In relative terms, the "crucial" levels of satisfaction are the fifth and sixth: an individual with base group characteristics falls into one of these two categories in almost 77% of the cases (see the first row of the table). Shifting to or from the fifth to

the sixth category of satisfaction implies being under or over the average level respectively. Hence, the most important marginal effects are those in columns $Pr(5)$ and $Pr(6)$, which signal that the most important factors of job satisfaction are, in order, as follows: relative wage, education level, gender, firm size (especially if it is over a thousand), chances to have meetings with the management about voice claims and the sharing of information. These "chances to meet" seem to be more relevant than being a public employee or having the possibility to negotiate wages. With regard to the concept of procedural utility, spreading information through news sheets and meetings has different consequences: the first method even seems to negatively affect job satisfaction. Analogously, with regard to voice channels, meetings with management are more appreciated than simple employee groups. Actually, "face-to-face" meetings with superiors can be considered the only really effective way for a worker to voice his concerns.

5 Conclusions

The analysis carried out in this paper confirms the findings of previous studies on the effects of personal conditions on job satisfaction. Moreover, the results are compatible with predictions of studies on psychological incentives: job satisfaction can be enhanced by spreading information in firms and by the giving a voice to employees' requirements and ideas. Nonetheless, it is necessary to choose means to spread the information that is perceived as democratic and reliable by the employees.

In particular, the analysis suggests that chances to meet with management in person either to voice opinions or to get information from superiors are relevant elements in determining job satisfaction. These opportunities for a meeting can positively affect job satisfaction in two ways:

- *Direct Effect*: workers appreciate the chance, in itself, to meet with management and this factor directly affects the level of job satisfaction (procedural utility);
- *Indirect Effect*: meetings are more effective than other means, both for receiving workers' claims and for spreading information, and they provide an opportunity to organize work in a more satisfactory way.

These results could be useful indications for building a modern theory of

Human Resource Management based on the minimization of transaction costs due to information asymmetries or moral hazard. Creating a satisfactory job environment could be an effective way to deal with moral hazard problems in productive units, resorting to gift exchange with workers (job satisfaction vs. effort). If this is the aim, it is necessary to implement reliable means, both to spread information within the firm and to give the employees the chance of voicing their claims, suggestions and opinions. "Face to face" meetings between management and employees seem to be the most appreciated (and effective) method to achieve this target.

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