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Determinants and Consequences of On-the-job Relationships: an Empirical Analysis of Italian Social Cooperatives

ABSTRACT

This paper introduces an empirical investigation of on-the-job relationships by studying two facets of relationships, namely time spent in relationships with colleagues and clients and quality of relationships cultivated on the job. The analysis is carried out on a sample of organisations in the welfare sector. This sector is characterised by the relevance of relationships due to the multitasking activity performed; specifically, the quality of services produced is frequently to result from attention paid to clients and relational aspects.

The paper focuses on both the determinants of time spent in relationships and employees satisfaction with relationships in order to understand the main factors determining the development of relationships, as well as the impact of relationships with colleagues and superiors on employees' wellbeing and performance. The natural traits of employees and their motivations towards relationships, affective and informational support by colleagues and superiors and the working environment are individuated as determinants of good-quality relationships. Furthermore, the results show that having good on-the-job relationships enhances job satisfaction, but also workforce productivity, with positive consequences for organisations as well.

KEY-WORDS

RELATIONSHIPS, SOCIAL SUPPORT, JOB SATISFACTION, EFFORT.

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1. Introduction

Recent contributions in both psychology and economics have demonstrated that interpersonal relations are linked with perceptions of wellbeing and economic decisions. A large body of literature has specifically assumed that relationships can be considered a good which is produced and consumed at the same time, and that their development both inside and outside the economic sphere frequently affects people's economic performances (see Gui and Sudgen, 2005: 5). The role of relationships must therefore be reconsidered in order to explain the preferences and behaviours of economic actors.

One of the areas in which interpersonal relations are of particular importance is work. Relations among co-workers have been studied from various standpoints. Game theory and experimental analyses have focussed on the generation of cooperative choices by the sentiments of altruism and reciprocity between co-employees who help each other (e.g. Fischbacher et al., 2001; Kolm, 2005). Economic models have been constructed to examine the interaction between social capital and interpersonal relations (e.g. Antoci et al., 2005). Agency problems have been studied in order to verify employee performances in jobs with high team interaction (Zàrraga and Bonache, 2005), or where the organisation provides economic incentives proportional to team performance (e.g. Rotemberg, 1994; Dur and Sol, 2008). Some empirical analyses have been carried out to test the correlation between interpersonal relations with co-employees, on the one hand, and employee wellbeing, turnover and commitment on the other (e.g. Riordan and Griffeth, 1995; Dejonge et al., 1996; Borzaga and Depedri, 2005). These studies have helped to elucidate the possible sources of good-quality work relationships (Hodson, 2008). Furthermore, they have shown that interacting with other people and having good interpersonal relations at work have positive consequences for both job satisfaction (e.g. Krueger and Schkade, 2007) and employee performance (e.g. Morrison, 2004).

A complete understanding of the dynamics of interpersonal relations on the job, however, is hampered by some limitations in existing studies. First, the theory claims that diverse interactions (amongst team members, with superiors, with clients and organisations with which employees interact) and diverse psychological reactions (in terms of cohesiveness, reciprocity, response to supportive human relations practices, etc.) can take place amongst co-employees. Yet, empirical and experimental studies tend to restrict their analysis to one variable only at a time, or they consider one unique impact on co-employee relations, without estimating the consequences on employees' performance and wellbeing.

A second shortcoming of empirical studies is that they undervalue the role of interpersonal relations as goods which are consumed and produced simultaneously, as previously defined, and which may therefore increase social wellbeing. The role of interpersonal relations must be reconsidered in order to explain their importance for multiple actors at the same time (as proposed by Gui and Sudgen, 2005, in regard to relational goods).

Third, whilst a large body of literature on relationships and on-the-job interactions has concentrated on teamwork and used the experimental approach, only a few analyses have been conducted on on-the-job relationships by collecting data on employees. Furthermore, the literature has not sufficiently considered that interpersonal relations in the workplace are not only of growing importance in increasing firm competitiveness and reducing control costs (as stressed by Rubery and Grimshaw, 2003), but also in improving the quality of services, especially in jobs that require multitasking and relations with clients, such as jobs in the welfare sector.

As Hodson (2008: 187) recently recommended, "we need models and methods that are capable of understanding the components, causes and consequences of co-employee relations in the workplace of the new millennium". Our paper responds to this recommendation by examining the determinants and consequences of interpersonal relations in a service sector of increasing importance in national welfare

systems, namely the welfare service sector. In order to identify the main components¹ of interpersonal relations, section 1 provides an overview of the topic and a summary of the various explanations and approaches to on-the-job relationships. The paper then seeks to estimate the social impact of on-the-job relationships in organisations where the development of interpersonal relations is important not only for employee wellbeing, but also for individual and organisational performance. Analysis is carried out on employees in the welfare sector by presenting data from a recent survey on social cooperatives, which are particular types of nonprofit organisations that produce welfare services.

Section 2 briefly describes the survey, which was conducted in Italy in 2007 on a sample of more than 4,000 employees in 320 Italian social cooperatives. The aim is to describe and interpret the importance of relationships for both the organisation itself and for its employees and to provide evidence for the multifaceted nature of interpersonal relationships. Section 4 focuses on the determinants and main consequences of on-the-job relations. The relation between interpersonal relationships, on the one hand, and employee wellbeing and performance on the other are investigated in order to understand whether relationships in general and their specific types better explain the emergence of cooperative behaviours and influence efficiency in the management of human resources.

2. The multiple dimensions of on-the-job relations

The standard economic approach does not investigate the importance of interpersonal relations in life or in the work environment. It has not typically conceived of relationships as goods because it considers them to be neither produced nor consumed by people. The interaction within working teams has been analysed by assuming that employees are purely self-interested, and principal-agents analyses have thus stressed the risk of opportunistic behaviour by people in groups, as typically demonstrated by underinvestment in effort and resources in the production of public goods. High support from co-employees and the presence of people more willing to cooperate has therefore been viewed more as a source of free-riding and lower effort than as a source of peer-monitoring and willingness to cooperate and reciprocate.

This approach has been challenged by psychology and behavioural economics. New theories have demonstrated that work relations significantly influence employees' perceptions and behaviours, and therefore warrant closer attention. The emergence of interpersonal relations and the possibility of positive consequences for employees' behaviour can be explained by various drivers.

A first driver is the social support demanded and supplied by employees. As described by Cohen and Wills (1985), social support can be provided in the form of affective support (which fosters the feeling of being accepted), informational support (giving advice and offering guidance), instrumental support (i.e. material assistance and co-help among employees) and social companionship (i.e. opportunities to develop networks on the job). All of these dimensions describe the emergence of interpersonal relations which produce both psychological and economic advantages for employees because they feel better, but also increase their knowledge and their job commitment. Social support seems to be provided by co-employees' cohesiveness and solidarity, which have consequently been studied as two of the focal dimensions of relationships (Zàrraga and Bonache, 2005).

¹ The term 'component' has been used by Hodson (2008) to define the facets that compose relationships. He particularly individuates the component of relationships in cohesiveness, conflict and peer supervision, but the term can be also adapted to all elements which define relationships. Therefore, the term 'component' will be used in the remainder of the paper according to this broad and non-statistical meaning.

The second and most frequently explored issue concerns teamwork. Being involved in a team tends to increase both affective and instrumental support amongst members (Ducharm and Martin, 2000). Relationships become more intimate (Tucker, 1999), and employees increase their sense of altruism, willingness to reciprocate and compliance with the group's social norms (Dur and Sol, 2008). Managerial practices which are attentive to both fair behaviours and economic team incentives can enhance teamwork (Dur and Sol, 2008). When employees are kind reciprocators, the organisation of people in teams can reduce the costs of monitoring and of nonattendance incurred by employers (Heywood et al., 2008) mainly by enriching peer monitoring (Guest and Peccei, 2001).

Although less investigated, individual features also seem to be important drivers of interpersonal relations, and they can explain the perception of relationships as goods which increase employees' wellbeing. People who are naturally extroverted tend to devote more time to relationships on the job as a persistent personality trait (Roberts and Del Vecchio, 2000), and they tend to be selected for jobs requiring more intensive relationships (Krueger and Schkade, 2007). Employees' motivations, attitudes towards relationships and social preferences also explain the choice of some jobs and wellbeing on the job (Kosfeld and Von Siemens, 2007). Furthermore, off-the-job relationships tend to explain employees' interest in on-the-job relationships (Hurlbert, 1991). Individuals therefore have preferences for relationships representing part of their personality traits; these explain why good relationships can better emerge better in some specific environments more than in others. However, preferences may evolve over time, depending on the influence of other people and the work environment (as in repeated games). Thus, the work environment becomes a further driver of on-the-job relationships.

Since features of the organisation and the work environment help to improve on-the-job relationships, they affect job satisfaction and employees' behaviours. Amongst the most important inter-organisational practices, researchers have pointed to involvement, consultation, provision of incentives and monitoring as factors which indirectly influence relations among employees and with superiors (e.g. Aoki, 1984; Gibbons, 1998; Dur and Sol, 2008). Supportive human relations practices have been studied from different standpoints, including the provision of stable employment and adequate rewards to improve the workplace climate. However, their importance has not always been confirmed (Hodson, 2008). Organisational policies also can be directed to increase or limit the opportunity for employees to meet with colleagues and to increase the time spent with them, considering that—as research has demonstrated—the more the time spent on relationships with co-employees, the higher the job satisfaction (Krueger and Schkade, 2007).

In conclusion, the importance of on-the-job relations has been ascertained and more complete hypotheses concerning their determinants and consequences can be put forward and empirically tested.

2.1. Hypotheses to be tested

Literature, and especially experimental analyses, has investigated interpersonal relationships from different standpoints, as described in the previous subsection. They help to show that relationships improve employees' wellbeing and performances with an intensity which depends on the individual motivations of employees, the features of jobs and organisations, the presence of other employees interested in cultivating on-the-job relationships and other variables which must be estimated when investigating interpersonal relations. We formulate our hypotheses on the components and the consequences of on-the-job relationships according to these considerations.

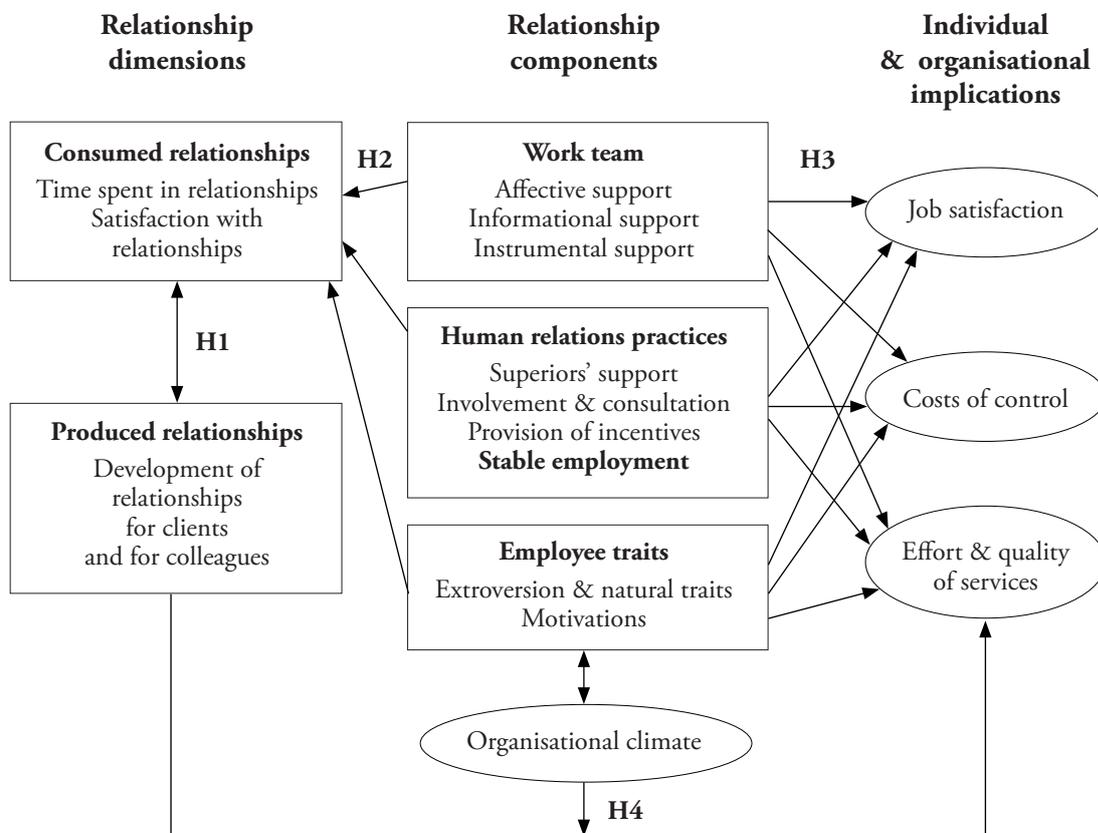
Figure 1 introduces a schematisation of the main literature contribution and the hypotheses to be tested in the following empirical section. Specifically, as stated in the literature, relationships are consumed and produced at the same time. Therefore, we use empirical data to test the following hypothesis:

H1: On-the-job relationships can be analysed with both quantitative and qualitative factors, which can be respectively approximated by the time spent on relationships and by satisfaction with them. Furthermore, relationships are not only produced by employees but also consumed by other people (mainly clients and colleagues). All of these dimensions of relationships are expected to be positively correlated; specifically, they are complements and not substitutes in determining relationships.

Summarising the literature, relationships also have different dimensions which develop within the organisation in two main domains – in the work team (in the sub-dimension of diverse kinds of support) and in the human relation practices (promoted by the organisation and by the superior). Furthermore, relationships are also described according to the individual's features, especially extroversion, motivation towards the job and social preferences. This multidimensionality of relationships helps to formulate the following hypothesis:

H2: Relationships configure simultaneously in several components and depend upon several dimensions, namely the natural traits of employees, the social support received from colleagues and superiors and some human relations practices. Not all organisations and employees are therefore expected to activate the same amount and quality of relationships, or to be equally satisfied with them, due to their different traits, diverse job environment and diverse components in which relationships take place.

Figure 1. Emergence and consequences of relationships



Furthermore, and most importantly, relationships can improve employees' wellbeing and willingness to cooperate not only within their team, but also through being kind reciprocators to the organisation. Therefore, we propose the following:

H3: The main components along which relationships are articulated influence job satisfaction and employees performances. Good-quality relationships are expected to be positively correlated with higher satisfaction for all employees. Furthermore, in welfare services – where relationships matter and increase the quality of the service – good-quality relationships are expected to increase employees' performance in terms of effort. Relationships with other people in general are thus supposed not to consume time that should be devoted to production, but on the contrary, to increase both job quality and employees performances.

Finally, this study also seeks to add new insights to the understanding of the role covered by the organisational climate. It intends to take an original approach for testing the interrelations among the various components and the consequences of on-the-job relationships. Specifically, we propose the following:

H4: The importance of the job environment is not only intrinsic to policies planned and treatment received; it also depends upon how other employees arrange the work environment. The team perception of relationships and the homogeneity of relational consumption in the workplace may influence wellbeing and willingness to cooperate, particularly in inequity-averse employees. Nevertheless, the employee's distance from the group is also expected to affect his/her satisfaction and effort.

The abovementioned hypotheses are expected to be especially relevant in sectors populated by altruistic people, volunteers and clients in need, whose presence is common in the welfare sector.

3. The empirical investigation

The literature on interpersonal relations on the job has mainly explained the importance of interactions with co-employees by means of laboratory experiments. Our paper contributes to the understanding of relationships in the workplace, and specifically in organisations where relations are important goods both for the consumption of employees and for production in favour of co-employees and clients.

The data that we introduce refer to a survey conducted by a network of Italian universities² between 2005 and 2007. The data were collected on a specific type of organisation producing welfare services, namely the social cooperative. Organisations of this kind mainly supply health, education and welfare services, or provide work integration for disadvantaged people. All services require employees to engage in multitasking activities where quality is at least as important as quantity, and where clients need to cultivate good relationships with the employees delivering the service.

The sample consists of 320 social cooperatives extracted from all Italian social cooperatives (around 12,000 firms with 300,000 employees) and designed to represent the universe by type, region (North-East, North-West, Central and South Italy) and size (fewer than 15, 15-50, and more than 50 employees). Questionnaires

² The network was coordinated by the University of Trento in collaboration with the University of Brescia, the University of Naples "Federico II", the University of Milan "Bicocca", the University of Reggio Calabria and Euricse. The research was financed by the Italian Ministry of University and Research and Fondazione Cariplo.

were also sent to 336 managers and to 4,134 salaried employees. The employees interviewed were mainly female, aged over 40 (36.1 per cent) and highly educated (34.7 per cent had a university degree).

The questionnaires collected information on the activity performed, job satisfaction, perceptions of equity and effort and relationships with superiors, co-employees, clients and the organisation. Qualitative statements were evaluated by employees on a Likert scale ranging from 1 (minimum) to 7 (maximum), or from 1 to 4. The following subsections present the most interesting findings on relationships in social cooperatives and seek to determine the main drivers and consequences of on-the-job relationships.

3.1. Descriptive statistics

The data enable several analyses of the importance of relationships from various perspectives. Specifically, as depicted in Figure 1, it is possible to distinguish between the dimensions and the components of relationships, as described in the literature.

In terms of the dimensions, the quantity of relationships is estimated in the time spent on relationships with the organisation's main stakeholders³ and the quality of relationships is expressed by employees' satisfaction with them (Table 1). Employees devoted a great of their time to relationships with clients, as expected due to the nature of their work. Relationships with colleagues and with superiors are also frequent.

The employees interviewed are very satisfied with all these relationships, and especially with relations with colleagues and, when working in a group, with the members of the team. Relationships with superiors are also satisfying; the least satisfying (although still positive) are relationships with volunteers, where present⁴. Relationships with clients received the highest average satisfaction scores.

Table 1. The dimensions of relationships

	<i>Average</i>	<i>Std. deviation</i>	<i>% high scores*</i>
<i>Time spent on relations with... (scale 1 to 4)</i>			
Colleagues	3.95	0.880	30.4
Members of the work team	3.47	1.383	26.1
Superiors	3.39	1.058	13.4
Clients	3.77	1.323	38.2
<i>Satisfaction with relationships with... (scale 1 to 7)</i>			
Colleagues	5.68	1.354	64.0
Members of the work team	5.68	1.277	51.5
Superiors	5.61	1.394	59.0
Clients	5.82	1.231	60.9

* The column presents the percentage of respondents with high scores. Since the two dimensions refer to different Likert scales, the percentage of time spent on relations refers to people answering 4; the percentage of satisfaction with relationships refers to people answering 6 or 7.

³ The most frequently used index for the importance of workplace relationships is the time devoted to relationships on the job.

⁴ 70 per cent of social cooperatives have volunteers. Volunteers are generally assumed to be vectors of intrinsic motivations and interest for relationships, given their altruism and intrinsic motivation to the job.

By looking at the components of relationships as defined in the previous sections, our questionnaire collects some data that approximate them efficiently. First, the individual inclination of employees to invest in relationships is tested by their extroversion level (Table 2). Even before becoming employed in cooperatives, 63.3 per cent of the employees interviewed assigned great importance to relationships (scores over 6), while only 6.9 per cent did not consider them important (scores under 4). Therefore, it seems possible to state that people employed in social cooperatives are quite homogeneously extroverted, which also supports the thesis that extroverted people tend to be employed in jobs requiring frequent relationships. Furthermore, differently extroverted people tend to also self-select or be employed in roles requiring different time spent in relationships. Whilst the percentage of very extroverted people is lower (54.8 per cent) amongst employees providing support activities (such as cleaning, cooking, etc.), it is higher amongst employees in direct contact with clients (61 per cent), and especially amongst those devoted to networking relationships (70.9 per cent).

A second component in our taxonomy consists of employee motivation. When employees are asked to rank the 12 most important aspects of their work, they put relationships with colleagues and superiors in fourth place (most important aspect for 27.7 per cent), and relationships with people interacting with the organisation (e.g. clients) in fifth place (most important aspect for 24.7 per cent). The wage ranks only sixth. Similarly, relationships rank fourth among the most important aspects of the job which attract employees to social cooperatives. They are considered very important by 56.2 per cent of the employees interviewed, followed by the opportunity for professional growth, to help other people and to find a job. However, they precede many extrinsic aspects, wage included.

Even when the importance of relationships as initial motivation is high, experience in social cooperatives increases the importance assigned by employees to relationships on the job (as stated by 71.7 per cent).

Table 2. Employees' extroversion and motivations

<i>Proxies</i>	<i>Average</i>	<i>Std. deviation</i>
Before being employed, relations were very important (<i>scale 1 to 7</i>)	5.67	1.385
In whatever job, importance of internal relations (<i>scale 1 to 12</i>)	9.51	2.573
In whatever job, importance of external relations (<i>scale 1 to 12</i>)	8.74	3.179
Attracted to the co-op to improve relations (<i>scale 1 to 7</i>)	4.62	1.664
Attracted to the co-op to work on shared projects (<i>scale 1 to 7</i>)	4.48	1.892
Importance of relations increased with length of service (<i>scale 1 to 7</i>)	5.37	1.283

Human relations practices can be also estimated in their diverse components. Two proxies for the opportunity to activate relationships are organisational size (one-third of social cooperatives have fewer than 15 employees, and their climate is therefore quite familiar) and the presence of volunteers (70 per cent have volunteers). Furthermore, 44.2 per cent of employees state that their organisations and their superiors quite often use relationships as incentives to stimulate them to perform better. In addition, the involvement of employees in the decision-making process and in the organisational mission is frequent in the social cooperatives (as stated by 41.7 per cent and 34.0 per cent, respectively, of the employees interviewed).

Following Hodson's (2008) approach, the survey also allows other human relations practices to be investigated, as follows:

- Training: In the findings, 59.9 per cent of employees complete courses, 36.7 per cent receive enrichment

through the co-help of managers and 31.2 per cent do so through the promotion of new external relations and knowledge;

- Procedural fairness: This is evaluated according to different dimensions, and interestingly, shows that more than half of employees perceive a high level of fairness in communication (for 53.3 per cent, communication and guidelines are clear and complete), treatment received (for 53.7 per cent, the organisation is fair to employees) and the tacit contract with the organisation (66.7 per cent claim that the organisation respects commitments).

Finally, specific human relations practices are promoted by superiors (Table 3). Employees claim that managers show that they were amenable to relationships by being friendly, sensitive and willing to listen to employees and give them advice. Thus, rather than formal exchanges in a hierarchical structure, relationships with superiors seem to be complete and non-intermediated relationships. Social support is furnished in the form of both affective and informational support.

Table 3. Relationships with superiors (scale 1 to 7)

	<i>Average</i>	<i>Std. deviation</i>
<i>Superiors...</i>		
Are kind and helpful	6.15	1.233
Are sensitive	5.96	1.309
Listen to employees' ideas	5.57	1.487
Give advice and guidance	5.58	1.485

In terms of the work team, employees evaluated the social support received by other members through diverse items (Table 4). Most of the employees interviewed (about 80%) work in teams, and relationships with team members are characterised by trust and reciprocal esteem, the sharing of ideals and cooperation. Both instrumental and affective support emerge within the work team.

Table 4. Social support in the work team (scale 1 to 7)

	<i>Average</i>	<i>Std. deviation</i>
<i>In the work team...</i>		
People are cooperative	5.50	1.560
Sentiments of trust and esteem prevail	5.56	1.431
People share ideals and knowledge	5.61	1.398

Finally, the investigation allows three dimensions on which relationships may have an impact to be evaluated, namely satisfaction, effort and monitoring. Declared job satisfaction is quite high, with an average of 5.47 on a scale from 1 to 7, a standard deviation of 1.316 and only 6.8 per cent of employees declaring low satisfaction levels (from 1 to 3). Effort is investigated in the questionnaire through three main dimensions, as follows:

- Employees' self-evaluation of their own performance—which scores an average of 6.5 on a scale from 1 to 7, with a standard deviation of 0.735 and only 9.6 per cent scoring themselves at less than 5;
- The level of effort exerted compared to the performance and effort by colleagues—which scores 4.8 on average, with a standard deviation of 1.072—; and
- The perception of employees' effort in comparison with the needs of clients and effort required by the activity—which equal 5.3 on average.

The variable of monitoring is estimated in the questionnaire by looking to at type of control: The activity of 62.8 per cent employees is controlled by managers, 28.8 per cent of employees need to follow organisational procedures and 6.1 per cent are totally free from direct control⁵.

3.2. The determinants of relationships

As described in the previous subsection, relationships have both a quantitative and a qualitative dimension, which are approximated in the questionnaire via time spent on relationships and satisfaction with relationships, respectively. On the other hand, relationships can be conceived according to their consumption and production dimensions. In both cases, complementarities are expected, since the greater consumption of relationships in both quality and quantity results in greater production of relationships in quality and quantity. Bivariate correlations show that all items of satisfaction with and time spent on relationships with the main organisational stakeholders are positively and significantly correlated (Table 5). Higher correlations emerge in particular between satisfaction with relationships with team members, on the one hand, and relationships with colleagues (Spearman's Rho equal to .706) and superiors (Spearman's Rho equal to .514) on the other. This result suggests that work teams are crucial for good relationships with their members (independently of their role in the group) and approximates the importance of social companionship. In addition, the correlation between time spent on relationships with superiors and satisfaction with relating with them is quite high (Spearman's Rho equal to .419). These data suggest that relationships on the job increase the predisposition of employees to interrelate with other actors in the organisation. Furthermore, relationships generate an important consumption good for employees by then increasing their satisfaction with relationships as a whole.

The analysis confirms hypothesis H1 on the complementarity amongst these dimensions of relationships, and specifically between the quantitative and qualitative dimensions, as well as amongst the diverse types of on-the-job relationships.

Table 5. Correlations between time spent on relationships and satisfaction with relationships (Spearman's Rho)

Proxies	Time1	Time2	Time3	Time4	Satisf1	Satisf2	Satisf3	Satisf4
Time1	1.000							
Time2	.262**	1.000						
Time3	.110**	.423**	1.000					
Time4	.254**	.488**	.324**	1.000				
Satisf1	.387**	.128**	.101**	.131**	1.000			
Satisf2	.128**	.311**	.185**	.235**	.276**	1.000		
Satisf3	.050**	.160**	.419**	.149**	.306**	.461**	1.000	
Satisf4	.122**	.265**	.211**	.384**	.309**	.706**	.514**	1.000

Legend: Time1=time spent with clients; Time2=time spent with co-employees; Time3=time spent with superiors; Time4=time spent in teams; Satisf1=satisfaction with relationships with clients; Satisf2=satisfaction with relationships with co-employees; Satisf3=satisfaction with relationships with superiors; Satisf4=satisfaction with relationships with members of the team

⁵ The data are also confirmed by questionnaires for managers. Less than half of superiors claim to control their subordinates in a direct and systematic way, while 17.5 per cent of them delegated monitoring to peers in the team. Trust allows 12.5 per cent of managers to avoid direct control, while 27.5 per cent of superiors exercise only spurious control. It is obvious that these diverse practices imply different monitoring costs.

Ordinary least squares (OLS) models are now employed to better analyse the determinants of both time spent on relationships and satisfaction with relationships. Models of time spent on relationships take as a dependent variable the average amount of time spent on relationships with colleagues, clients and superiors (average of items on a scale from 1 to 4). The dependent variable is therefore a continuous variable, and linear regression models can be applied.

Model 1 (results in Table 6) assumes as independent variables job features and employee characteristics. The results show that time spent on relationships depends on some personal traits: Young, highly educated and extroverted employees tend to spend more time on relations, as do females and employees with long tenure in the organisation. However, intuitively, time spent on relationships also depends upon some job tasks: The quantity of relationships is positively influenced by full-time jobs, open-ended contracts and especially roles where employees are asked to work in direct contact with clients (with the highest coefficient, equal to 0.2241). A positive correlation also emerges with the sensitivity of superiors to employees' needs and ideas, and with the presence of friendly and altruistic colleagues in the work team, by approximating the relevance of affective support by teams and informational support by managers.

Model 2 introduces the distinction between the individual perception and an organisational effect⁶. The model thus tests how time spent in relationships is due to a general effort of all employees in the cooperative to produce relationships rather than the individual will to invest in relationships. Perceptions on both superiors and work teams are therefore classified in an organisational effect, calculated as the average of the scores assigned by all employees interviewed in the same cooperative⁷, and an individual effect, calculated as the difference between the average of the organisation and the individual score assigned by the employee⁸. These separate variables also allow a distinction to be made between the individual relations of the employees with the team/ superior and the exchange of relationships inside the cooperative, as a proxy for the cooperative's ability to increase the production and consumption of relationships. Model 2 (results in Table 6) shows that the individual perceptions of employees about superiors and colleagues in the work team significantly influence their time spent on relationships, but also that the average perception of all the organisation's employees positively influences the time devoted to relationships. This demonstrates that when all employees judge their superiors and co-employees positively, the development of relationships increases for all employees. The maximum significance, however, is recorded by the average time spent on relationships by all the cooperative's employees with the exception of the interviewed employee (coefficient equal to .5412). The hypothesis of a positive cycle of relationships is therefore confirmed.

Finally, Model 3 (results in Table 6) also introduces proxies for the working environment. The employees' traits continue to be statistically significant. However, the time spent on relationships is also positively affected by the involvement of employees in the organisational mission (and satisfaction with it), training received by employees (especially when superiors are supportive), the planning of meetings and opportunities to develop relationships. These results confirm Hodson's findings, and specifically the importance of human relations practices in developing relationships. However, curiously, the time spent on relationships increases when employees are controlled by their superiors. Control is probably not perceived as a pressure, but rather as a stimulus to perform better, and especially to increase time spent in relationships with clients and in helping colleagues.

⁶ Economists have frequently discussed the possibility that the perception of employees of their working environment and their satisfaction are intermediated by the perceptions of other employees in the organisation. It follows that the self-selection of employees with similar characteristics and perceptions more than the perception of the employee in itself may explain the final satisfaction of employees.

⁷ The variable is statistically representative of the human resources of each organisation.

⁸ See also the table in Appendix I.

A relational psychological contract clearly defines the job (Rousseau, 1995). Furthermore, while neither the organisational size nor procedural fairness (expressed by communication, employees' treatment and respect for commitments) influences the time spent on relationships, the presence of volunteers supports the development of relationships.

Table 6. Determinants of time spent on relationships (OLS)

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>
Gender	0.056*	0.051*	0.043
Age	-0.009***	-0.009***	-0.010***
Degree	0.161***	0.168***	0.188***
Tenure in the organisation	0.002***	0.014***	0.125***
Part-time	-0.138***		
Open-ended contract	0.085**		
Working in direct contact with clients	0.224***		
Natural traits	0.058***	0.055***	0.066***
Motivation towards relations	0.004	0.005	0.018***
Superiors are kind	-0.001		
Superiors are receptive	0.075***		
Superiors communicate	0.009		
Work team cooperative	-0.006		
Work team friendly and trustworthy	0.026**		
Work team altruistic	0.059***		
Average relations with superiors		0.029	
Individual relations with superiors		0.072***	
Average org. work team		0.132***	
Individual work team		0.046***	
Average org. time on relations		0.541***	
Satisfaction with involvement		0.029***	0.036***
Involvement in the mission			0.064***
Involvement in decisions			0.000
Training through courses			0.059**
Training through superiors' help			0.072***
Control by superiors			0.100***
No control			-0.123***
The co-op communicates		-0.102	-0.012
The co-op treats employees equally		0.012	0.003
The co-op respects commitments		-0.006	-0.012
Incentives: meetings		0.068***	0.076***
Incentives: development relations		0.041***	0.048***
Organisation's size		0.032*	0.017
Presence of volunteers			0.524**
Constant	2.360***	1.952***	2.207***
N=	3125	3125	3986
F=	46.98	34.98	36.39
R ² =	0.197	0.169	0.168
Root MSE=	0.598	0.609	0.661

The drivers of good-quality relationships are studied by taking as dependent variable the satisfaction with relationships as a whole, calculated as the average satisfaction with relationships with colleagues, superiors and clients⁹. Hence, the dependent variable is a continuous variable on which linear regression models are applied. As in the previous analysis, three models are run, controlling for several dimensions.

Model 1 (results in Table 7) shows that satisfaction with relationships primarily depends upon particular employee traits. Satisfaction increases for employees who are extroverted and who consider relationships at work to be very important. Females seem more satisfied with relationships than males. Job tasks (included by Hodson as inter-organisational practices) only partially influenced satisfaction with relationships; part-time employees are slightly more satisfied.

Human relations practices are especially correlated with satisfaction with relationships. Managerial practices which provide for informational support, and especially for affective support and receptivity for superiors, are all positively correlated with employee satisfaction with relationships. Similarly, social support amongst colleagues in the work team, expressed by kindness, communication and listening, increases satisfaction with relationships. The quality of relationships seems to be especially determined by affective support (coefficient equal to .1219).

Model 2 (results in Table 7) also introduces organisational climate as an independent variable. Climate is calculated via three dimensions¹⁰. The organisational climate is calculated as the average of scores assigned to the perception of the climate by all employees interviewed in the same cooperative¹¹. The individual perception is calculated as the difference between the perception of the climate by the single employee minus the organisational climate and the individual score assigned by the employee¹². Inequity aversion to heterogeneous relationships is approximated by the standard deviation of perceptions of employees in the same organisation.

Satisfaction with relationships are found to depend on both an organisational and an individual effect. As expected, the individual perception of social support received from superiors and from the work team positively influences satisfaction with relationships. However, satisfaction also significantly increases when superiors are supportive of all employees in the same cooperative and when members in the work team give social support to all of the cooperative's employees. Furthermore, individual satisfaction with relationships is positively related with the presence of (all) satisfied employees (coefficient of the average of organisational satisfaction with relationships equal to .7248). In addition, the cooperative's ability to increase the employees' interest in relationships over time positively affects satisfaction with relationships. Therefore, it is possible to claim that the work environment has an important role in both implementing relationships and increasing the importance assigned to on-the-job relationships, with positive consequences for individual satisfaction with relationships.

⁹ Relationships with team members, volunteers and external individuals were excluded because they depend on other characteristics of the job and of the cooperative, for example, the presence or otherwise of volunteers in the organisation.

¹⁰ Economists have frequently discussed the possibility that the perception of employees of their working environment and their satisfaction are intermediated by the perceptions of other employees in the organisation. It follows that the self-selection of employees with similar characteristics and perceptions more than the perceptions of the employee in themselves may explain employees' ultimate satisfaction.

¹¹ The variable is statistically representative of the human resources of each organisation.

¹² See also the table in Appendix I.

Table 7. Determinants of satisfaction with relationships (OLS)

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>
Gender	0.059*	0.073**	0.142***	0.093**
Age	-0.001	-0.003	-0.005*	0.004*
Degree	-0.040	-0.004	-0.002	-0.077**
Tenure in the organisation	0.003	0.002	-0.002	-0.003
Part-time	0.098**			0.098**
Open-ended contract	-0.074			0.074
Work in direct contact with clients	0.004*			0.004
Natural traits	0.083***	0.057***	0.080***	0.083***
Motivation towards relations	0.050***	0.030***	0.044***	0.050***
Affective support in Human Resource Policies (HRP)	0.152***			
Receptive superiors in HRP	0.096***			
Informational support in HRP	0.030*			
Instrumental support in work team	0.050***			
Affective support in work team	0.122**			
Altruism in work team	0.095***			
Motivation towards relations increased		0.055***		
Average HRP		0.174**		
Individual perception HRP		0.234***		
Std. deviation HRP				
Average org. work team		0.249***		
Individual work team		0.188***		
Std. deviation work team				
Average org. satisfaction with relations		0.725***		
Std. deviation satisfaction with relations				
Satisfaction with involvement		0.060***	0.131***	
Involvement in the mission		0.000	-0.011	
Involvement in decisions			-0.027	
Training through courses			0.043	
Training through external relations			-0.068*	
Control by superiors			0.024	
No control			-0.020	
The co-op communicates		0.015	0.037**	
The co-op treats employees equally		0.034	0.056***	
The co-op respects commitments		0.001***	0.048***	
Incentives: meetings		0.063***	0.126***	
Incentives: relations		0.021	0.047**	
Organisation's size		0.055**	0.062**	
Presence of volunteers			0.059*	
Time on relations with colleagues				0.149***
Time on relations with superiors				0.180***
Time on relations with clients				0.090***
Constant	1.926***	1.910***	2.814	2.703***
N=	3096	3118	3532	3953
F=	129.46	94.24	45.48	57.58
R ² =	0.353	0.354	0.214	0.1492
Root MSE=	0.813	0.813	0.925	0.9585

A third model (model 3 in Table 7) is run by introducing some proxies for the work environment too. Satisfaction with relationships emerges as closely correlated with fairness of procedures – which is approximated by communication, a fair treatment of employees and commitment. Control, training and involvement are not significant, and employees are more satisfied only when they are also satisfied with the level of involvement in the organisational mission. However, policies to improve relationships within the organisation (through meetings among co-employees and the activation of on-the-job relationships in general) still improve satisfaction with relationships, supporting the hypothesis that human relations practices are important for employees.

The final model carried out on satisfaction with relationships (model 4 in Table 7) wants to test the relation with time spent on relationships and therefore introduces, close to the ordinary control variables, those factors which approximate time spent in relating with the main organizational stakeholders. The relationships are in these cases all significant at the highest level, so that as expected we can conclude that the two dimensions of relationship (quantity and quality of relationships) are strictly related, although (as previous models confirm) they have common determinants which explain them respectively.

In conclusion, the models presented in Tables 6 and 7 support hypothesis H2: Both the time spent on relationships and satisfaction with relationships are positively related with jobs where relationships are better developed, with the natural extroversion of employees and with human management practices which support the cultivation of relationships among employees. In addition, the importance of the three different types of social support, and especially affective support, is confirmed. Furthermore, the models also support hypothesis H4: Both the inter-group perception of relationships and individual preferences for relationships are positively correlated with the possibility of activating relationships and the satisfaction with them. The data thus reinforce the role of the work environment, which largely explains the relationships which people can cultivate on the job.

A final note concerns the correlation between employees' satisfaction with relationships on and off the job. Correlations are positive and highly significant (Table 8). Employees satisfied with relationships with their relatives and friends are also generally more satisfied with relationships with their colleagues and superiors, although the coefficient of correlation is not very high (Spearman's Rho equal to .229 and .252, respectively). Employees satisfied with on-the-job relationships also tend to be significantly more satisfied with their job as a whole (Spearman's Rho of .415) and happier with their lives (Spearman's Rho of .226). Therefore, relationships tend to homogeneously pervade the main spheres of life, namely work, family and external activities.

Table 8. Correlations between satisfaction with relationships on and off the job (Spearman's Rho)

<i>Satisfaction with...</i>	1	2	3	4	5
1. On-the-job relationships	1.000				
2. The job	.415**	1.000			
3. Relationships with relatives	.229**	.338**	1.000		
4. Relationships with friends	.252**	.321**	.652**	1.000	
5. Life	.226**	.382**	.468**	.492**	1.000

3.3. Some implications

The direct and most frequently tested implication of enjoying good-quality relationships on the job is the improvement in employees' wellbeing. The following models therefore test the impact of relational items on satisfaction with the job as a whole (dependent variable which assumes values from 1 to 7). Ordered probit models are carried out by including the usual items describing relationships. Variables were included step by step in the models in order to show their net effects.

Model 1 in Table 9 shows that job satisfaction is significantly and positively influenced by employees' attraction (and motivation) concerning the relational aspects of their job and of the organisation. No correlation emerges between job satisfaction and the natural extroversion of employees, while job satisfaction is positively correlated with other individual traits like gender (with females more satisfied than males with their jobs) and the level of education (with graduates less satisfied). Furthermore, job satisfaction also depends on the working environment and on people with whom employees interact. Employees are significantly more satisfied with their jobs when they receive support from superiors and from the members of their work team. Both affective and informational supports are very important.

Model 2 (in Table 9) distinguishes between organisational and individual perceptions, as already proposed in previous models. In this case too, both the effects of the general climate perceived by all employees of the organisation and the interrelation between the employee on the one hand and team members and superiors on the other are highly significant. These findings illustrate that promoting a good working environment and good relationships within the team and with superiors is crucial for the wellbeing of all employees. Not only does employees' satisfaction depend on their individual perception of relationships, but also, a work environment characterised by good relationships tends to give all employees better opportunities for interpersonal relations and greater wellbeing. Furthermore, employees are also more satisfied when length of service in the cooperative had contributed to increasing their interest in on-the-job relationships.

Model 3 in Table 9 illustrates that, as expected, satisfaction with relationships is significantly and positively related to job satisfaction, and specifically, employees are more satisfied with their jobs when both relationships with superiors and colleagues are satisfying; meanwhile, satisfaction with relationships with clients had a lower (though positive) significance. Although satisfaction with relationships alone does not explain job satisfaction, individual motivations of employees are very significant.

The last model (model 4 in Table 9) concludes by including also time spent on relationships close to the individual traits and motivations. The results illustrate that employees spending more time in relationships with both colleagues and superiors are also more satisfied. Although we can not comment on the causal relation between these variables, it is demonstrated that relationships are linked to happiness and the work environment explain more than relations with users, since these last are mainly determined by the type of job and activity carried out, while relationships with peers are autonomously decided.

Finally, it should be mentioned that both wage and extrinsic motivations are non-significant in determining job satisfaction (with exception of a negative correlation between job satisfaction and extrinsic motivation in the last model), while job satisfaction is significantly and positively related with the intrinsic motivations of employees (average of the employee's interest in involvement, social utility of the job, autonomy, creativity and interest in the activity performed).

Table 9. Determinants of job satisfaction (ordered probit estimates)

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>
Gender	0.096*	0.068	0.072	0.421***
Age	0.004	0.004	0.003	0.005*
Degree	- 0.169***	- 0.149***	- 0.186***	-0.141**
Wage	0.004	0.00392	0.007	-0.001
Part-time	- 0.120**	- 0.09690*	- 0.113**	-0.121**
Intrinsic motivations	0.093***	0.086***	0.097***	0.100***
Extrinsic motivations	0.021	0.011	0.006	-0.045**
Natural traits	0.018	0.011	0.029*	0.122***
Motivation towards relations	0.032***	0.027***	0.025***	0.022***
Job chosen to implement relations	0.068***	0.047**	0.070***	-0.410**
Affective support in HRP	0.121***			
Receptive superiors in HRP	0.174***			
Informational support in HRP	0.057**			
Instrumental support in work team	0.030*			
Affective support in work team	0.098***			
Average org. work team		0.104**		
Individual work team		0.092***		
Std. deviation work team				
Average HRP by superiors		0.358***		
Individual HRP by superiors		0.362***		
Std. deviation HRP				
Interest in relations increased		0.145***		0.110***
Satisfaction with relations with colleagues			0.132***	
Satisfaction with relations with superiors			0.206***	
Satisfaction with relations with clients			0.034**	
Time on relations with colleagues				0.408**
Time on relations with superiors				0.118***
Time on relations with clients				0.013
N=	3103	3125	3986	3986
LR chi ² =	970.11	1044.32	896.19	469.64
Log likelihood=	-4336.025	-4330.322	-5765.671	-3441.178
Pseudo R ² =	0.101	0.108	0.07211	0.064

The models are now replicated by assuming employees' effort as the dependent variable (Table 10). The variable considered is the self-declared level of effort, which is a good proxy of performance, since it is estimated by employees by taking into account both qualitative and quantitative aspects of their jobs. Due to the distribution of answers along the evaluation scale (from 1 to 7)¹³, the variable has been merged in low-medium effort (point 1 to 5), high declared effort (6) and very high effort (7), and it allowed ordered probit models to be run.

Model 1 includes employee traits and motivations only. The data show that effort is significantly and positively related with employees' natural extroversion and motivation towards relationships. Social support is also a positive determinant of effort, although affective support—but not instrumental and informational support—is a lever for better individual performances.

Model 2 (in Table 10) also includes variables on relationships with superiors and team members split into organisational and individual perceptions, as in the previous model. In this case, the results are very significant: Effort increases with the individual perceptions about relationships with superiors and team members, while the organisational climate has no effect on employees' effort. Therefore, it can be concluded that, while the organisational climate is important in explaining the general wellbeing of employees and their satisfaction with relationships, the individual perceptions about relationships with superiors and colleagues can only improve individual performances and influence employees' behaviours. This finding is confirmed in Model 3 (Table 10), where effort emerges as positively influenced by employees' satisfaction with relationships with colleagues, clients and superiors.

Finally, in the all models, effort exerted is higher for women, full-time employees and graduate employees. Effort is also positively related with the intrinsic motivations of employees and negatively with their extrinsic motivations, corroborating the idea that people in social cooperatives exert higher levels of effort when they are attracted by aspects other than the wage, while people interested mainly in monetary incentives tend to perform less¹⁴.

¹³ The variable never assumed values under 3. Therefore, the scale of evaluation was converted so that the distribution of the population was more representative. Nevertheless, 60.6 of employees claimed that they made the maximum level of effort (7).

¹⁴ This finding is also consistent with the low wages of the sector.

Table 10. Determinants of employee effort (ordered probit estimates)

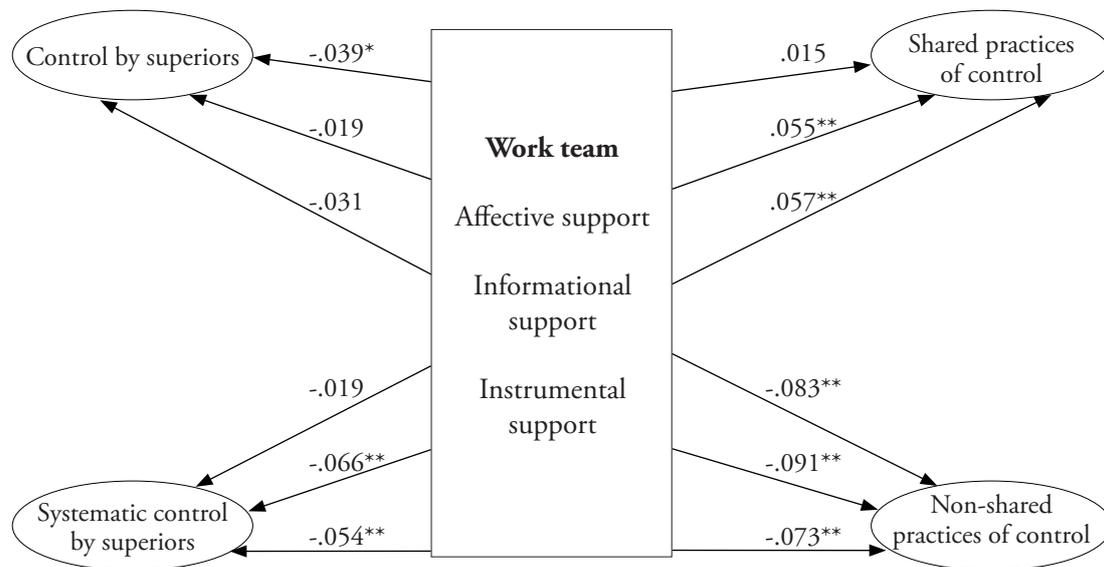
	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>
Gender	0.461***	0.452***	0.455***
Age	- 0.00	- 0.001	0.0024
Degree	- 0.131**	- 0.108***	- 0.143**
Wage	- 0.011	- 0.012	- 0.001
Part-time	- 0.162***	- 0.135**	- 0.178***
Intrinsic motivations	0.113***	0.120***	0.104***
Extrinsic motivations	- 0.052**	- 0.066**	- 0.057**
Natural traits	0.113***	0.109***	0.129***
Motivation towards relations	0.028***	0.025**	0.029***
Job chosen to implement relations	- 0.028	- 0.045	- 0.023
Affective support in HRP	0.042**		
Receptive superiors in HRP	0.050**		
Informational support in HRP	0.024		
Instrumental support in work team	0.012		
Affective support in work team	0.102***		
Average org. work team		0.045	
Individual work team		0.047**	
Std. deviation work team			
Average HRP by superiors		0.013	
Individual HRP by superiors		0.157***	
Std. deviation HRP			
Interest in relations increased		0.097***	
Satisfaction w. relationships with colleagues			0.070***
Satisfaction with relationships with superiors			0.041**
Satisfaction with relationships with clients			0.059***
N=	3,103	3,125	3,810
LR chi ² =	406.25	411.13	427.48
Log likelihood=	- 2,649.91	- 2,667.93	- 3,280.11
Pseudo R ² =	0.071	0.075	0.061

In conclusion, the models on job satisfaction and effort support hypothesis H3: Good relationships induce a sense of wellbeing and increase the willingness to cooperate amongst employees. Time spent on relationships does not compromise effort; instead, these two factors are positively correlated. Furthermore, organisational effects and the work environment in general are important drivers of employees' wellbeing and performances. However, hypothesis H4 is not supported for effort, since the group perception of relationships does not influence the willingness to increase the performance by employees, while only the individual perception of relationships explain effort.

As schematised in Figure 2 below, the work team and relationships with its members are also very

significant. They specifically reduce both informal, and especially, formal monitoring by superiors; the data therefore demonstrate that work teams in which colleagues are helpful facilitate the development of peer support and peer cooperation, by increasing trust of superiors in the work team functioning and performances. At the same time, a correlation emerges between the diverse dimensions of support in the work teams, as well as having shared practices of control by superiors and the organisation itself. If this is the case, it can be stated that informal environments tend to develop where people trust each the other and are supportive, and where the work environments are cooperative and oppose the practice of formal and hierarchical monitoring.

Figure 2. Bivariate correlations between the relationships' components and control



By concluding on the scheme proposed and on the hypotheses presented at the beginning of the analysis, it is possible to claim that the components along which relationships are defined are numerous and can be estimated in both quantitative and qualitative factors. Some parts of the relationships produced depend on the interest of employees to spend time and resources in relationships due to their natural extroversion. Some parts of relationships are the results of interactions and supportive behaviours by colleagues and superiors, who also influence the work environment by creating an informal atmosphere and sense of cooperation, and who enhance some social norms which influence the perception of the work environment and the satisfaction with relationships for all employees. Furthermore, some parts of relationships depend on the investment by managers and organisations in the possibility for their employees to find time and opportunities to enhance on-the-job relationships.

Finally, it is also possible to claim that since relationships are consumed and produced at the same time, they do not consume working time, but instead positively affect both individual job satisfaction and employees' performances in terms of effort devoted to the activity.

4. Conclusions

Interpersonal relationships seem to be crucial, especially when jobs include multitasking and requires employees to be involved and to relate with other people. The welfare sector is one of the most important examples where relationships can matter. Both economic and sociological theories have emphasised the importance of relationships as goods which are produced and consumed at the same time, influence the wellbeing and happiness of people involved in relationships and enhance cooperation and reciprocity amongst such individuals.

With the aim of finding empirical supports for the theory and the psychological literature on the determinants, components (intended as different dimensions of) and consequences of on-the-job relationships, this paper focussed on both quantitative and qualitative dimensions of relationships. Although analyses carried out in this paper suffer the limit of not verifying the casual relations among the factors considered, the data emerge as interesting for a preliminary understanding of the complexity of on-the-job relationships and in order to reflect in general on their relevance and positive linkage with individual wellbeing and creation of pleasant work environments. As a general result, data show in fact that the natural traits of employees and their motivations, the characteristics of the job and the work environment all affect relationships. The most important determinant of enjoying good-quality relationships is the social (both affective and informational) support by colleagues and superiors.

As a second result, the paper demonstrates that good relationships and human relations practices are correlated with both the satisfaction and performance of employees. Interpersonal relations are therefore a source of personal wellbeing, but do not consume time which should be dedicated to increased productivity. On the contrary, due to the multi-tasking nature of the analysed jobs, relationships stimulate people to exert higher levels of effort.

The empirical findings allow reflection on the sustainability of the standard approach to the study of human resource management, which views on-the-job relationships as consuming time and therefore decreasing effort and performances. The recent development in the empirical analyses and in the organisational studies, as well as the results of this investigation, help to suppose the claim that on-the-job relationships must not be considered solely as an externality which is randomly produced by employees and a possible obstacle to employee productivity. Rather, the paper demonstrates that on-the-job relationships help to increase both employee wellbeing and effort.

The present investigation has the limitation of considering a specific industrial sector where relational aspects influence the quality of performance; therefore, the results cannot be extended to all sectors of activity and organisations. Nevertheless, the findings are important because they concern a range of organisations whose economic and social importance will increase in the near future. For example, in Italy in the last 20 years, social cooperatives have been registering a 10 to 20 percent average annual growth rate. Indeed, they increased in number from a little over 2,000 before regulation up to nearly double that number (3,900 units) in 1996, and reaching 7,363 entities in year 2005 (National Institute for Statistics [ISTAT] data). In 2011, there were 12,264 social cooperatives employing 365,006 workers (Euricse, 2013). Moreover, the results support the hypothesis that the production of welfare services requires some human resource practices promoting participative work environments, which can emerge when the organisation dismisses a purely hierarchical structure in favour of informal communication, cooperation and co-help among managers and employees and employees themselves.

Appendix

Table A. Items included in the multinomial models

<i>Item</i>	<i>Question</i>	<i>Values</i>
Gender	Indicate your gender	0=Male, 1=female
Age	Indicate your age	Continuous variable
Degree	Your level of education	0=Degree, 1=other title
Wage	Indicate your hourly wage	Continuous variable
Part-time	Indicate your working hours	0=Full-time, 1=part-time
<i>Individual attitudes and motivations</i>		
Natural traits	Before you were employed in the co-op, were you interested in on-the-job relations?	Discrete variable from 1=not at all to 7=full
Motivation towards relations	How important do you consider relationships on the job in general?	Discrete variable from 1=not at all to 7=full
Job chosen to implement relations	How attractive did you consider relationships choosing to work for the co-op?	Discrete variable from 1=not at all to 7=full
<i>Proxies of working environment and individual perceptions</i>		
Superiors are kind	How kind and helpful is your superior?	Discrete variable from 1=not at all to 7=full
Superiors are receptive	How much does your superior listen to your needs and ideas?	Discrete variable from 1=not at all to 7=full
Superiors communicate	To what extent does your superior communicate in a kind and clear way?	Discrete variable from 1=not at all to 7=full
Work team cooperative	In your working team, members cooperate	Discrete variable from 1=not at all to 7=full
Work team friendly and trustworthy	In your working team, members are friendly and trustworthy	Discrete variable from 1=not at all to 7=full
Average org. superiors	Average of scores assigned from all employees interviewed in the co-op to the items: superiors are kind and helpful; superiors are receptive of employees' needs; superiors communicate and transmit guidelines	Continuous variable from 1=not at all to 7=full
Individual claims on superiors	Difference between the average score assigned to the above questions from the employee and the average of the co-op	Continuous variable from -6 to +6 with 0=no difference
Average org. working team	Average of scores assigned from all employees interviewed in the co-op to the items: members of my work team cooperate; members are friendly and trustworthy; members share experiences and are altruistic	Continuous variable from 1=not at all to 7=full
Individual claims on working team	Difference between the average score assigned from the employee and the average of the co-op	Continuous variable from -6 to +6 with 0=no difference
Satisfaction with relationships with colleagues	How satisfied do you feel with your relationships with colleagues?	Discrete variable from 1=not at all to 7=full
Satisfaction with relationships with superiors	How satisfied do you feel with your relationships with superiors?	Discrete variable from 1=not at all to 7=full
Satisfaction with relations with clients	How satisfied do you feel with your relationships with clients?	Discrete variable from 1=not at all to 7=full
Time on relations with colleagues	How much time do you spent on relations with colleagues in your working day?	Discrete variable from 1=no time to 5=a lot of time
Time on relations with superiors	How much time do you spend on relations with superiors in your working day?	Discrete variable from 1=no time to 5=a lot of time
Time in relations with clients	How much time do you spend on relations with clients in your working day?	Discrete variable from 1=no time to 5=a lot of time
<i>Human resources policies</i>		
Interest for relations increased	How much do you think the co-op has improved your attitudes towards relationships?	Discrete variable from 1=not at all to 7=full
Incentives used: development of relations	How much does the co-op support the development of relationships to increase effort?	Discrete variable from 1=not at all to 7=full
Incentives used: meetings	How much does the coop organise meetings to induce employees to increase their effort?	Discrete variable from 1=not at all to 7=full

Table B. Socio-demographic features and contractual position of the workforce

Variables	No. of observations	Average	Std deviation	Minimum	Maximum
Worker age	4134	37.40	9.01	17	73
Tenure	4134	5.70	5.47	0	36
Gender (1 = female)*	4134	0.74	0.44		
Married with children*	4134	0.59	0.49		
Education: secondary school*	4134	0.52	0.50		
Education: three years university degree*	4134	0.11	0.32		
Education: five years university degree or higher*	4134	0.17	0.38		
Open end contract*	4134	0.81	0.39		
Part-time*	4134	0.32	0.47		
Forced Part-time*	4134	0.12	0.32		
Hourly wage plus fringe benefits	3434	6.61	2.36	1.36	46.51
Individual monetary premium received last year*	4105	0.06	0.23		
Yearly amount of monetary premium	4134	77.20	285.34	0	6000
Job task: relationships with clients*	4134	0.56	0.50		
Job task: coordination*	4134	0.06	0.23		
Job task: manual worker*	4134	0.09	0.29		
Size of the firm (no. of employees)	4097	140.63	238.48	1	1702

* Dummy variable

Source: ICSI 2007 database.

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