

Strategic management of IC dimensions affecting organisational climate into healthcare organisations

Daniela Carlucci¹, Giovanni Schiuma²,
Francesco Sole³, Roberto Linzalone⁴

Nowadays, under the pressure of changes related both to legislation and social and economic scenario, the attention of management of HealthCare (HC) organisations towards the delivery of high quality services and continuous improvement has dramatically increased. This has produced a renewed interest of HC organisations for the assessment and management of organisation's intangible resources. The study focuses on the evaluation and management of organisational climate, conceived as a distinctive organisational feature, resulting from the synergic combination of several intangible resources, and key source of outstanding performance. The context of investigation is a public hospital.

Management

Introduction

During the past two decades, under the pressure of changes related both to legislation and social and economic scenario, public service organisations have started to focus on productivity improvement, customer satisfaction and, generally, a more effective management. In such a scenario, a renewed interest about the role of intangible resources in determining organisational performances has risen (Siddiqui and Kleiner, 1998; Van Beveren, 2003). Several studies aimed to explore the potential of intangible resources as performance driver in public sector services have been produced. However the amount of research contributions is still fairly poor (Habersam and Piper, 2003) and widely open to new theoretical and practical insights. This is particular valid for HealthCare (HC) services. Recently, some scholars have examined the relevance of intangible resources for gathering outstanding performance in these services (Habersam and Piper, 2003; Siddiqui and Kleiner, 1998; Zigan et al., 2008). However the studies are still few and more knowledge is needed about the role and the value of intangible resources in HC organisations (Van Beveren, 2003).

¹Assistant Professor Daniela Carlucci, PHD, Center for Value Management -DAPIT, University of Basilicata, Italy. Email: daniela.carlucci@unibas.it

²Associate Professor Giovanni Schiuma, PHD, Center for Value Management – DAPIT, University of Basilicata, Italy and Center for Business Performance, Cranfield School of Management, UK. Email: giovanni.schiума@unibas.it

³ Dr Francesco Sole, Center for Value Management -DAPIT, University of Basilicata, Italy. Email: francesco.sole@unibas.it

⁴ Dr Roberto Linzalone, PHD, Center for Value Management -DAPIT, University of Basilicata, Italy. Email: roberto.linzalone@unibas.it

This paper presents some selected findings from an ongoing national research project aimed at investigating the role that Intellectual Capital (IC) can play to promote performance improvement in HC organisations.

The article illustrates the preliminary results of a research activity specifically aimed i) to analyse the organisational climate into HC organisations, as a distinctive feature of an organisation, resulting from a synergic combination of several intangible resources, and ii) to better understand how managing IC for enhancing organisational climate and, as result, organisational performance.

The research has been carried out within an Italian public hospital as an Action Research (AR) project. The project is still ongoing. The illustrated findings concern the analysis of the intangible resources founding organisational climate in the targeted context and some managerial implications for improving climate and, in turn, the “value” embedded in health services outcomes.

The paper is structured as follows. In the first section, the research background is briefly described. In the second section, the research context and methodological notes are presented. In the third section, the results of the project are described. Finally, in the last section, conclusions and suggestions for future research are provided.

1. Research background

1.1 Organisational climate and Intellectual Capital

Over the years, there has been a long standing interest in the study of organisational climate among scholars. The concept of organisational climate can be traced back to several studies, e.g. Lewin et al. (1939), Murray (1938). Following these seminal studies, many scholars have proposed different definitions of organisational climate (e.g. Argyris, 1958; Brown and Leigh, 1996; Patterson et al., 2005). Nowadays, obtaining a consensus about the definition of climate seems difficult as the climate construct is complex and many different scholars have used and continue to use the same terminology to mean different things. For example, there has been some confusion about the manner in which organisational climate is distinct from the notion of organisational culture. Similarly to definitions and the theoretical positions on climate, also the dimensions of climate have varied considerably between the scholars. Over the years, the number of the suggested climate dimensions has proliferated, leading to disorientation. Despite there is still considerable diversity in the definitions and dimensions used to explain the climate construct and there are not clear and common shared research conclusions, it seems possible to refer to a dominant approach for analysing organisational climate. This approach conceptualises climate as a relatively enduring characteristic of an organisation which distinguishes it from other organisations and which reflects the prevalent norms, values and attitudes of the organisation culture. It is connected to employees' shared perceptions of their organisation with respect to features such as autonomy, trust, cohesiveness, support, recognition, innovation, and fairness, as well as to

members' interactions and structural features of the organisation. Organisational climate is, therefore, a multidimensional distinctive feature of an organisation, which is deeply rooted within the intangible domain of an organisation, or, in other words, within what is widely recognised as IC of an organisation. The IC is a relatively new concept which stands for those organisational resources that are basically intangible in nature and contribute to define and create value for an organisation (Carlucci and Schiuma, 2007). These resources are various and can be reasonably related to the categories of IC of the Knoware Tree (Schiuma et al., 2005) (see Figure 1). The Knoware Tree is a model able to provide a comprehensive platform for disentangling and identifying the intangible domain of an organisation.

Figure 1. The IC dimensions founding organisational climate



Wetware category includes several elements founding organisational climate such as, for example, satisfaction, motivation, well being, both physical and psychological, job satisfaction, team working capacity, and so on.

Netware comprises some intangible resources which concur to define organisational climate, for example, relationships among colleagues, relationships with customers, team working practices, and so on.

Hardware embraces the structural features of workplace and the organisational structure which influence organisational climate, such as for example, the technical infrastructures, especially ICT based, equipments, the layout of the working environment, and so on.

Finally *Software* includes soft features of organisational system which are deeply engaged in organisational climate, such as for example, rewards systems, decision making practices, leadership, management style, performance appraisals practices, training policies, innovation propensity, and so on.

Therefore organisational climate is deeply rooted within the IC of an organisation.

The effective management of intangible resources, indeed, can significantly contribute to improve organisational climate.

1.2 Organisational climate as performance driver into HC organisations

Several studies have claimed that climate perceptions are associated with a number of important outcomes at individual and organisational level, such as, for example,

individual job performance (Brown and Leigh, 1996), customer's perception of service quality (Schneider et al., 1980), innovation (Scott and Bruce, 1994), and so on. This is because organisational climate affects the employees' behaviour in workplace and plays a crucial role in any organisational process improvement that requires the implementation of a major organisational change. More in general organisational climate can have significant positive or negative effects on organisation and its performance. It is, therefore, reasonable to claim that organisational climate has a great importance in understanding how an organisation works and creates value.

The climate is relevant to service industries and, in particular, to knowledge intensive service industries, as the vast majority of their outputs is characterised by intangibility, heterogeneity, and simultaneously production and consumption.

Regarding the HC services, a literature review reveals that several studies have outlined the importance of organisational climate in HC services, see e.g. Jackson-Malik (2005); Stone et al. (2006); Wienand et al. (2007).

According to these studies, understanding the forces that are involved in the creation of a superior organisational climate is very important. In particular, linking this understanding to daily activities, individual and organisational performance as well as to some phenomena such as, for example, job satisfaction, burnout, and intent to leave, holds great significance for gaining a more effective management.

Therefore, it becomes essential that HC managers, on a continual basis, should assess and monitor organisational climate.

Regarding the assessment of organisational climate, studies have mainly proposed quantitative methods and several questionnaires have been projected for this purpose. Climate dimensions employed in the questionnaires are various (Patterson et al., 2005), but generally they appear closely tied to intangible domain of an organisation.

About the HC sector, several studies have analysed organisational climate by using quantitative approaches, e.g. Avallone and Bonaretti, 2003; Wienand et al., 2007. However, also in this case, the lack of consensus on climate and its operationalisation, has meant the production of few measures with demonstrated reliability and validity.

2. The AR project

This study reports the results of an AR project which is still ongoing. The project is aimed to achieve both theoretical and practical objectives. Theoretical objectives concern i) an analysis of the organisational climate into HC organisations, as a distinctive feature of an organisation, resulting from a synergic combination of several intangible resources, ii) a better understanding of how IC management can contribute to enhance organisational climate and, as result, organisational performance. While practical objectives concern specific practical issues which are described in the following.

The context of the project was the department of oncology of a big regional public hospital located in south of Italy. In the AR project two researchers acted as facilitators. The practical objectives for implementing the AR project have been identified from HC quality manager along with the researchers.

The first objective is related to the need of determining the level of perceived organisational climate in one of the most important departments of the hospital and identifying the existence of features of organisational climate to improve.

The second objective is related to the accreditation, which is an ongoing process within the investigated hospital. In the last few years, the national legislation has required the accreditation for public and private HC providers of the National Health Service. The accreditation requires a continuous and systematic improvement, assessment and monitoring of all dimensions of service quality. For the investigated hospital getting accreditation means to adopt and implement the "continuous quality improvement" in three main areas: patients' rights, support systems, care services. Assessing and managing organisational climate is one of the activities to perform systematically to improve the area of support systems.

2.1 Methodological notes

The study is based on the AR methodology. The AR has become increasingly prominent among management researchers for carrying out research into management and organizations. This is because AR is particularly appropriate for developing theoretical insights that relate closely to practice and concern process of managing (Huxham and Vangen, 2003). The use of the AR methodology for investigating organisational climate seems to be particularly appropriate, for several reasons. First, the management literature stresses that organisational climate is strongly affected by the context, thus any research investigating the subject has to take into account the organisational context. This is a fundamental characteristic of the AR which uses an organisation as a physical laboratory for developing and testing practical interventions and advancing knowledge closely related to the context. Second, the AR, as "research in action", well deals with the outstanding need of improving knowledge about how organisations can assess and manage organisational climate, since AR allows to extract from practice, in accordance with an inductive approach, insights to be combined with those based on a theoretical deductive approach. The study reports the results of the diagnosing and planning phases of the AR project. The tools used for investigating organisational climate and its components were: a questionnaire, built on the basis of validated scales (Avallone and Bonaretti, 2003; Wienand et al., 2007), some discussions with employees and the HC quality manager, performed before and during the survey, and regular observations of employees' work. Every item of the questionnaire contains only a single concept in order to obtain a univocal response. The responses to the items are graduated on a "self-anchoring" scale; the value assigned by the subject is one on a scale from 1 to 5, where the subjective distance between any two consecutive values is assumed to be equal. A total of 140 employees were invited to participate

in the survey on organisational climate. Questionnaires were totally completed by 89 employees. The questionnaires were filled by employees during targeted meeting with facilitators. In order to allay any suspicions and hence reduce respond bias the respondents were informed, during targeted focus groups, about the aim of the project and that their individual responses would be kept completely confidential. This was to create awareness among the employees about the study conducted and how important their participation was, to make the study a success for the organisation in bringing some positive change. The percentages of respondents replicate the percentage structure of the department in terms of job categories. This is important in order to justify the use of aggregation of individual perceptions to predict department climate.

3. Findings

Climate perceived within the department turned out quite satisfactory (mean 2.7; s.d. 0.47). The analysis of the climate perception at units' level did not reveal significant differences among the units. We found the existence of a modest difference among different categories of employees in their perception of organisational climate as a whole and of its components. In particular we found that the perceived organisational climate had highest value among doctors (mean 3.08; s.d. 0.44) than the rest of employees (mean 2.6; s.d. 0.42). This gap is somehow referable to the different level of specialisation of employees. From the detailed analysis of collected data and a discussion with HC quality manager, several intangible resources are emerged poorly developed and undermining a satisfactory organisational climate at department level. They are shown in Table 1.

Table 1. Critical intangible resources

Intellectual Capital dimension	Intangible resource	mean	s.d.
Wetware	Knowledge of hospital's actions plan	1.7	0.92
Netware	Team working habit	2.41	0.97
Hardware	Adequacy of workplaces of the unit	2.42	0.94
Software	Management of the reward mechanisms at organisational level	1.55	0.72
	Organisational system rewarding individual performances	1.75	0.70
	Practices concerning the career opportunity	1.8	0.89
	Management's attention to employees' needs and requests	1.86	0.70
	Management of the reward systems mechanisms at unit level	2.08	0.95
	Practices of management of internal conflicts at unit level	2.16	0.87
	Information dissemination at organisational level	2.36	0.80

From the survey and observations on field has emerged a dissatisfaction about the performance assessment and the management of reward systems. Moreover employees perceive that career opportunities are not equally guaranteed for all. As result of this, employees are unmotivated to invest energy and efforts in their daily activities and don't pay sufficient attention to features concerning the hospital's policies.

Moreover the level of employees' knowledge of organisational assets and strategic and operative objectives is fairly low. This contributes somehow to increase among employees the sense of disinterest from the top management. At unit level, team working and the management of internal conflicts need to be improved.

An improvement of the layout and infrastructures of the department have been also identified as important. Currently, the units of the department are spread within the hospital. This negatively affects the information dissemination and, more generally, employees' productivity.

In addition to the critical elements of organisational climate, the survey has allowed to diagnose also some intangible resources relatively well developed and enhancing the climate.

3.1 Strategic Management of organisational climate

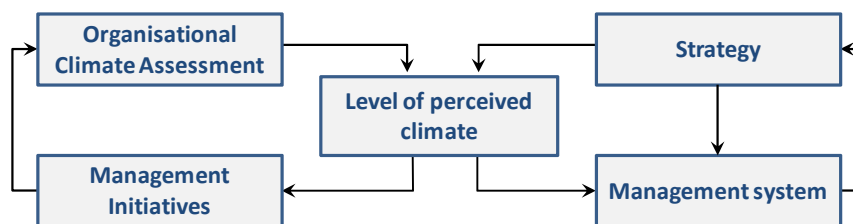
Data collected through the organisational climate survey and observations on field are served as basis for having a snapshot of the department's "health", pinpointing real and potential trouble spots, diagnosing scarcely developed intangible resources and systemic problems causing individual and organisational underperformance.

The problematic issues arisen from the survey have been discussed with HC quality manager, employees engaged in the investigation and the hospital's director with the main purpose to identify shared management initiatives to undertake for enhancing organisational climate and, hence, to have positive effects on HC services performances. Intangible resources related to the "Software" dimension have been indicated as the main room of improvement.

The initiatives have been planned taking into account the critical role that organisational climate has for the successful implementation of the organisation's strategy. In this regard, Burton et al. (2004) suggest that a fit between organizational climate and organizational strategy will result in increased overall performance because the employees' perceptions about the organization are aligned with the strategic objectives of the management. In contrast, a divergence between the employees' perceptions about the organization and the organizational strategy results in negative effect on return on assets (Burton et al., 2004) because employees do not behave in the interest of the management and according to the organizational objectives. Bowen and Ostroff (2004) argue that a strong climate increases the likelihood of achieving strategic objectives, because employees who are confronted with unambiguous messages about which behaviour is appropriate, are able to develop a deep understanding of which organizational objectives have

priority and which behaviour is expected by the organization. Therefore a satisfactory climate acts as enabler of strategy implementation. However organisational climate acts also as strategy driver. Indeed, an inadequate perceived climate could also require rethinking the strategic objectives and/or their translation into practice through a suitable management system (see Figure 2).

Figure 2. Strategic management of organisational climate



In the analysed context the comprehensive knowledge of the hospital's strategy and the perceived climate, has lead to plan the following initiatives:

- adoption of a "barometer" of organisational climate, for evaluating systematically and over time the state of "health" of the hospital. This is aimed to provide support for policy and a range of suggestions for the improvement of the IC components founding organisational climate;
- training initiatives aimed to encourage team working practices;
- analysis of workers' competencies for revealing training objectives;
- workshops on the leadership within HC contexts;
- communication strategy workshops.

Outcomes of these initiatives will be monitored through the systematic assessment of perceived climate. Managers, on the basis of this evaluation, could justify their investments to develop certain intangible resources, or, if their assumptions were wrong and there was not a climate improvement, they might go back to the start and understand the reasons of the failures both from strategic and operative point of view.

4. Conclusions

Nowadays, under the pressure of changes related both to legislation and social and economic scenario, HC organisations have increased their interest about the assessment and management of organisation's intangible resources.

This paper focuses on the analysis and management of a peculiar organisational feature, deeply rooted in organisational intangible resources, i.e. the organisational climate.

Especially, the study describes the first phase of a project, aimed to analyse the organisational climate in the department of oncology of an Italian public hospital and discusses managerial implications for successfully managing organisational climate.

The main limitations of the study are related to the fact that the AR project is ongoing and the context of analysis is limited. The extension of the project to all the departments of the hospital would be very valuable. It would allow to have a picture of organisational climate of the entire organisation and to plan and implement management initiatives able to enhance performance of the hospital as a whole.

Acknowledgements

The authors wish to thank the Italian Minister of University and Scientific Research for financing this research, which is part of the National Scientific Research Programmes (PRIN 2007).

References:

- Argyris, C. 1958. "Some problems in conceptualising organisational climate. A case study of a bank', *Administrative Science Quarterly*", vol. 2, pp.501-520.
- Avallone, F. and Bonaretti, M. 2003, *Benessere organizzativo per migliorare la qualità del lavoro nelle pubbliche amministrazioni, Analisi e strumenti per l'innovazione: i manuali*, Rubettino, Roma.
- Burton, R. M., Lauridsen, J., and Obel, B. 2004. "The impact of organizational climate and strategic fit on firm performance'. *Human Resource Management*", vol., 43, no. 1, pp.67-82.
- Bowen, D. E. and Ostroff, C. 2004. "Understanding HRM-firm performance linkages: The role of the "Strength" of the HRM system', *Academy of Management Review*", vol. 29, no. 2, pp.203-221.
- Brown, S.P. and Leigh, T.W. (1996), "A new look at psychological climate and its relationship to job involvement, effort and performance", *Journal of Applied Psychology*, Vol. 81, pp. 358-368.
- Carlucci, D. and Schiuma, G. 2007, "Exploring intellectual capital concept in strategic management research", in Joia, L. (Ed.), *Strategies for Information Technology and Intellectual Capital: Challenges and Opportunities*, Idea Group Inc., London, pp.10-28.
- Habersam, M. and Piper, M. 2003. "Exploring intellectual capital in hospitals: two qualitative case studies in Italy and Austria', *European Accounting Review*", vol. 12, no. 4, pp.753-779.
- Huxham, C. and Vangen, S. 2003. "Researching organizational practice through action research: case studies and design choices', *Organizational Research Methods*", vol. 6, no. 3, pp.383-403.
- Jackson-Malik, P. J. 2005. "Organizational climate and hospital nurses' job satisfaction, burnout, and intent to leave", *Dissertations available from ProQuest*, Paper AAI3165703.
- Lewin, K., Lippitt, R. and White, R. 1939. "Patterns of aggressive behavior in experimentally created social climates', *Journal of Social Psychology*", vol. 10 no. 2, pp.271-301.
- Murray, H.A. 1938, *Explanations in personality*, Oxford University Press, New York.

- Patterson, M., Warr, P. and West, M. 2004. "Organizational climate and company productivity: The role of employee affect and employee level", *Journal of Occupational and Organizational Psychology*, vol. 77, pp.193-216.
- Patterson, M.G., West, M.A., Shackleton, V.J., Dawson, J.F., Lawthom, R., Maitlis, S., Robinson, D.L. and Wallace, A.M. 2005, "Validating the organizational climate measure: links to managerial practices, productivity and innovation, *Journal of Organizational Behaviour*", vol. 26, no. 4, pp. 379–408.
- Schiama, G., Lerro, A., and Carlucci, D. 2005, "An Interfirm Perspective on Intellectual Capital", in Marr B. (Ed.), *Perspectives in Intellectual Capital*, Elsevier, Boston, MA. pp.155-169.
- Schneider, B., Parkington, J.J. and Buxton, V.M. 1980. "Employee and customer perceptions of service in banks", *Administrative Science Quarterly*, vol. 25, pp. 252-267.
- Scott, S. G., and Bruce, R. A. (1994), "Determinants of innovative behavior: A path model of individual innovation in the workplace", *Academy of Management Journal*, Vol. 37 No. 3, pp. 580-607.
- Siddiqui, J. and Kleiner, B.H. (1998), "Human resource management in the health care industry", *Health Manpower Management*, Vol. 24 No. 4, pp. 143-147.
- Stone, P.W., Larson, E. L., Mooney-Kane, C., Smolowitz, J., Lin, S., and Dick, A. (2006), "Organizational climate and intensive care unit nurses' intention to leave", *Critical Care Medicine*: Vol. 34 No. 7, pp. 1907-1912.
- Van Beveren, J. (2003), "Does health care for knowledge management?", *Journal of Knowledge Management*, Vol. 7 No. 1, pp. 90-95.
- Wienand, U., Cinotti, R., Nicoli, A. and Bisagni, M. (2007), "Evaluating the organisational climate in Italian public healthcare institutions by means of a questionnaire", *BMC Health Service Research*, Vol. 7, pp. 73-86.
- Zigan, K., Macfarlane F. and Desombre T. (2008), "Intangible resources as performance drivers in European hospitals", *International Journal of Productivity and Performance Management*, Vol. 57 No. 1, pp. 57-71.