NORTH-HOLLAND

The Journal of Socio-Economics

Journal of Socio-Economics 30 (2001) 353–362

The qualitative element in organization behavior

Andreas A. Andrikopoulos, Kyprianos P. Prodromidis*

Athens University of Economics and Business, 76 Patission Street, 10434 Athens, Greece

Abstract

The paper emphasizes the importance of the qualitative element in the behavior of business firms. Qualitative effects generated by suitable interpersonal relations can stimulate the state of operations of an organization, beyond the limits often prescribed by fundamental quantitative variables.

JEL classification: A1

Keywords: Organization; Interpersonal relations; Qualitative effect; Uncertainty

1. Introduction

Qualitative relationships have long been recognized in the business literature and the literature on the economics of organization. However, they have been largely ignored or de-emphasized in the mainstream economics literature. The traditional theory of the firm has concentrated on material, monetary and, in general, engineering relations and constraints. It has not dealt with qualitative relations, e.g. the strong or loose ties of firms to banks, suppliers and their other external collaborators or the social conduct of managers of organizations when dealing with their external collaborators, etc. Being in the background of the traditional engineering relations and constraints, such relations can, under certain conditions, secure invaluable resources to the organizations involved, thus influencing favorably the size of their budgets and the range of their activities. In this context, the missing link is an analysis emphasizing the importance of nonmaterial intra- and interfirm relations. Bringing the qualitative element into light is expected to improve our understanding as regards the performance of modern businesses in a rapidly changing socio-economic environment.

* Corresponding author. Tel.: +301-8203-344; fax: +301-8203-301.

E-mail address: kpp@aueb.gr (K.P. Prodromidis).

PII: S1053-5357(01)00105-6

Several authors have previously examined various aspects of qualitative factors. Essentially, Morishima (1982) and Sen (1987) study the influence of social norms on individual conduct. Simon (1982, 1987) considers empirical regularities in particular markets. The American institutionalists are concerned with group behavior under the influence of custom and habit (Blaug 1990, p.126). Friedman (1986) and Granovetter (1985, 1994) study interpersonal relations and intergroup rapports. Akerlof (1997) examines issues associated with social distance and social decisions, and Jarillo (1998) is concerned with strategic networks. This analysis is at variance with earlier studies. It emphasizes the importance of qualitative factors in determining intraorganization synergies in production and interorganization synergy flows due to exchange. It explains how the qualitative element, if properly exploited by a rational economic actor, can stimulate an organization's growth under normal conditions or, operating as a buffer, can safeguard it from adverse external shocks. These shocks springing from a variety of sources, for example, shortages in the world supply of key raw materials or a changing social climate, can turn out to be disastrous for the prospects of an organization, if not encountered properly and in time.

2. Conceptual and methodological issues

The organization of a rational economic actor i, K_i, $i=1,\ldots,n$,[1] is a systematized body of interrelated actors, which is created in order to accomplish specifi viewed as the set of its strategic alliances, which are necessary for the attainment of its short- and longer-term objectives. In this sense, the network of the external collaborators of an organization comprises its "organic" set (Petychaki-Henze & Prodromidis, 1995). The organic set should not be confused with the kindred concept of "strategic network," that is, a web of firms that form a system geared to providing products or services in a coordinated way (Jarillo, 1998).[2]

By establishing an organic set, the "head" of an organization aims at creating conditions of relative certainty in a complex and uncertain environment. In that environment he makes plans for the short- and longer-run objectives of his organization. In the short term, he seeks to secure, with the highest probability, a relative balance between basic material and monetary inflows and outflows. Uninterrupted flows of such tangible items, at suitable rates, between the organization and its organic set are a prerequisite for its smooth functioning and survival. In the longer term, he seeks to improve the economic prospects of his organization, by innovating and/or differentiating its product. To accomplish that, other things being unchanged, it is necessary that he try to close the social distance between him and his potential external collaborators in order to strengthen the ties between his organization and tive constraints the firms are facing, for they refer to social activities, involving groups of people in ways different from those we have been accustomed in analyzing in economics. In general, the qualitative constraints involve both the internal structure of an organization and its external relations in the context of its organic set. The former focus on the following:(i) The quality of human capital of K_i, that is, the back-ground, training, skills and experience (in short knowledge) of its individual members. (ii) The degree of attachment of the individual members of an organization to their organization. A typical example is the Japanese case.[6] And (iii) the intraorganization relations of these individuals, which depend on the specific tasks assigned to them and correspond to their specific statuses (roles) within K_i.[7]

The qualitative constraints bearing upon the external relations of an organization with its organic set are based on the assumption that the "head" of the organization acts rationally. That is, he strives to develop and maintain positive relations (collaborations) and avoid, neutralize or ease negative relations (conflicts, antagonisms) with his external collaborators. The terms of collaboration between his organization with the organizations of his external collaborators are based on the principle of self-interest. They are determined in bilateral agreements, based on formal or informal relations.[8]

Interpersonal relations, such as those already outlined, between a rational actor and his external collaborators enable him to better predict the behavior of each of his external collaborators in different situations. Thus, he can condition his strategy on the anticipated actions and reactions of the others. Generalizing over all actors, we maintain that their conditional individual strategies can give rise to a set of mutual predictions contributing to uncertainty reduction as regards the expected behavior of all participants in the game. Moreover, direct and indirect interdependencies among all collaborating actors force them to act cautiously, so that they exhibit predictable patterns of behavior. Hence, upon negotiating with his (potential) external collaborators, the "head" of an organization aims to secure: (i) uninterrupted flows of inputs and outputs, (ii) easier terms of payment for the current and future periods, and, if needed, (iii) a rescheduling of his debt outstanding. Full utilization of his relations with his external collaborators is expected to lead to an enlargement of the budget opportunity set of his organization and improve its future prospects.

3. Qualitative effects: their potential role in output determination

The internal qualitative constraints emerge from the internal structure of the organization. In that structure, each individual has an own position. To each position there correspond rights and obligations. This implies that every member of the organization is aware of the rights and obligations of the other members in the same organization. This enables him to (i) expect with relative certainty the actions of the other members of the organization in the context of their own roles; and (ii) anticipate their reactions, whenever their legal or contractual rights are violated.

The various qualitative aspects portraying the internal structure of an organization are classified in three categories (Table 1): (a) *The interpersonal relations within an organization as regards its objectives.* These relations are influenced by the specific roles and tasks assigned to the members of the organization, their cultural differences and their exposure to the objectives of other organizations, for example, unions, households, and so forth, in which

Table 1
Qualitative attributes in the internal structure of organization

	Criterion	Ranking of attributes		
1.	Interpersonal relations as regards the organization's objectives	Cooperation	Indifference	Conflict
2.	Degree of attachment of employee to organization	Devotion	Apathy	Aversion
3.	Employee knowledge	Outstanding	Mediocre	Below average

they possess different positions at the same time.[9] The latter qualifications suggest that employee behavior within an organization can be different than expected and is not homogeneous across employees. To be precise, employees with skill homogeneity, scheduled to do identical jobs within the organization, can exhibit heterogeneous behavior. This ranges from harmonious cooperation, that is, their conscientious contribution to the fulfillment of the organization's objectives, to indifference, and disputes or conflict. (b) *The degree of employee attachment to their organization.* This ranges from devotion to apathy and even to hostility toward the organization. A devoted member of an organization identifies himself with the fate and the interests of the organization; he perceives his position and his career in that organization as an indispensable part of his life. On the other hand, an apathetic person is uncommitted to the organization; he is in an endless straddling position and is looking for a chance to jump from it. Finally, an opposing person exhibits antagonistic attitudes toward the organization; he places greater weight to the alternative roles he possesses, for example, secretary of his local union, rather than as an employee of the organization. (c) *The quality of human capital (knowledge) within an organization.* This is classified as outstanding, mediocre or below average.

The results of this subsection can be summarized by the following proposition:

Proposition 1: *The concurrence of high quality interpersonal relations within an organization in conjunction with a high* degree *of attachment of the employees to their organization is expected to give rise to synergistic effects in production, which, other things being equal, will eventually enable it to be more productive than otherwise. Due to its origin, this effect is termed internal qualitative effect,* Q^I.[10]

The internal qualitative effect is an additional source of increasing returns. Its neglect can bias downwards predictions concerning the production possibilities of the organization.[11] Normally, Q^I is positive. Negative or zero values for Q^I are, of course, possible. They illustrate bad or indifferent intraorganization interpersonal relations as regards the objectives of the organization. The latter relations are assumed away in the rest of the paper, since the emphasis is on positive relations. Therefore, to concentrate only on the mechanical transformation of inputs into outputs within an organization undermines its true capabilities, for it ignores the contribution of the internal qualitative factors to its development.

Consider next the qualitative features emerging from the external relations between an organization and its organic set. Now, the objective of the "head" of organization K_1 is to build stable interorganization relations on the basis of close interpersonal relations with the "heads" of the collaborating organizations involved in the context of his organic set. By so doing, he aims at the attainment of the short- and the long-run objectives of his organization in a regime of relative certainty. To put it differently, the interdependencies between the "heads" of the organizations and, hence, between the organizations themselves shed light on individual and organizational behavior via effects and constraints in a social context (Granovetter, 1973, 1985). On the basis of the degree of closeness of relationships of this kind, we can rank the interpersonal relations between the "head" of an organization with the "heads" of the external collaborating organizations involved as strong, tolerable, and weak. These lead to the following proposition.

Proposition 2*: The stronger (weaker) the degree of interpersonal relations between the head of* K_1 *and his external collaborators the higher (lower) the likelihood for arriving at improved agreements for his organization*.

With such arrangements the head of the organization targets for continuous in- and out-flows of tangible exchanges, possibly with preferential terms if needed, for the smooth operation of the activities of the organization. Eventually, the impact of this scheduling would make the budget constraints of the organization softer than otherwise. These would strengthen its defenses at times of adverse external shocks. The softer budget constraints are expected to mitigate and/or counterbalance the impact of temporary or even recurring adverse external shocks on the operation of the organization. This result can be labeled external qualitative effect, Q^E. It assumes positive values. Negative or zero values for Q^E are ruled out, since they do not justify the creation of an organic set by the organization.[12] In conclusion, we have:

Proposition 3: *Under normal conditions, the internal and external qualitative effects are expected to shift outward the production possibility frontier of organization* K_1.

It follows from the above that the interpersonal relations within an organization, among organizations and among organic sets give rise to endless exchanges of tangible and intangible items. The former involves material and monetary inflows and outflows. The latter concerns exchanges of flows of information, consultations, software, social preconceptions, bias, opinion, and the like. These intermingled exchanges underline the complexity of the environment, within which the various organizations struggle for survival and growth.

To grasp the contribution of the qualitative effects Q^I and Q^E on the well-being of an organization, it is of interest to examine how do they work at times of an adverse external shock. This shock is expected to disrupt the smooth operation of an organization, by disequilibrating its production process, upsetting its sales and profit strategies, and so forth Denote by F_i, the negative qualitative effect of such a shock on organization K_i, and by K^e_{it} the state of the organization's operations expected at time t. Then K^e_{it} can be expressed as

$$K^e_u = f(Q^I_{it}, Q^E_{it}, F_{it}), \quad f_1, f_2 > 0 \quad \text{and} \quad f_3 < 0 \tag{1}$$

and symbols f_i, i=1,2,3, stand for the first order derivatives of the qualitative effects at issue on the expected level of operations of the organization. Eq.(1) can be augmented to include the relevant fundamental variables, **Z,** from the theory of production, for example, labor, capital, raw materials, and so forth, affecting the state of operations of an organization, that is,

$$K^e_{it} = f(Q^I_{it}, Q^E_{it}, F_{it}, \mathbf{Z}) \tag{2}$$

Total differentiation of (2) with respect to time yields the time path of the expected state of operations of the organization, that is,

$$\frac{dK_{it}^{e}}{dt} = f_1\frac{dQ_{it}^{I}}{dt} + f_2\frac{dQ_{it}^{E}}{dt} - f_3\frac{dF_{it}}{dt} + f_4\frac{d\mathbf{Z}}{dt} \quad f_4 > 0 \tag{3}$$

Assuming away the impact of the fundamentals on dK_{it}^{e}/dt, we notice the following: Organization K_i (a) can get into a long-run path leading to its growth or decay, if the sum of the rates of change $f_1 dQ_{it}^{I}/dt\, f_2 dQ_{it}^{E}/dt$ is greater than or less than $f_3 dF_{it}/dt$, respectively; and (b) can remain in its old steady state equilibrium, if the sum $f_1 dQ_{it}^{I}/dt + f_2 dQ_{it}^{E}/dt$ is equal to $f_3 dF_{it}/dt$. In that latter case, the organization continues with its current policies. Nonetheless, it is reasonable to expect its manager to try to reorganize and update his organic set so as to place, eventually, the organization on a growth path.

4. Conclusion

This paper has emphasized the importance of the qualitative element in the behavior of business firms. To neglect the impact of qualitative effects on total production yields unrealistic predictions on the future prospects of individual organizations, and weakens the forecasting ability of micro- and, hence, macroeconometrics models.

Notes

1. In this paper, the terms "rational economic actor," "head" or "manager" of an organization are used interchangeably. They are equivalent with Clark's (1960)) "leader" and the Marschack-Radner (1972) "organizer" or "designer."
2. Notable examples of strategic networks are the well known, worldwide, Kentucky-Fried Chicken and McDonald franchise type restaurants, the chain-operation of Beneton clothing,and the Japanese grouping system of subcontractors (keiretsu). For details see Jarillo (1998).
3. The two concepts under discussion should not be confused with the social networks and various exchange systems previously studied by economists and sociologists, as, for instance, by Arrow (1974), Emerson (1981), Gillmore (1987), Raub and Voss (1986), and Yamagishi et al. (1988).
4. In the same spirit are Granovetter (1995, pp. 129–130) and Ben-Porath (1980). Details on contract law, social norms and interfirm cooperation are given in Arrighetti et al. (1997) and the literature cited therein.
5. Akerlof (1997) emphasizes that socially close (distant) heads of organizations interact strongly (weakly), so that the respective social networks and reference groups are strengthened (weakened). Consequently, the economic interactions expected to prevail between their respective organizations are stronger (weaker). See also Granovetter (1973).
6. The degree of attachment of Japanese employees to their firms is stronger than in other advanced economies, since Japanese enterprises can be viewed as communities, where both management and employees are bound together by a common fate and common interests (Morishima, 1982). In fact, this is a two-way causality relation, characterized by lifetime employment, steeper earnings-tenure and earnings-total

experience profiles than in Western advanced economies, such as the US, and high labor productivity (Hashimoto & Raisian, 1985).

7. Earlier attempts to analyze the firm as an administrative unit have been made by March and Simon (1965) and Cyert and March (1963). For an interesting discussion see Dietrich (1991). On the relationship of these concepts and entropy see Bailey (1990).
8. The formal relations are based on official, binding contracts between the interested parties. The informal relations arise in situations characterized by strong personal or family ties, acquaintances between the parties in collaboration, gentlemen agreements and the like.
9. For instance, a worker in organization K_1 is, at the same time, the head of his household, the secretary of his labor union, and so forth Under each capacity he has a different role. As the worker of K_1 he has to do the job that his contract prescribes. As the head of his own household, he strives for the welfare of his family. As the secretary of his union, he ought to behave according to the statutes of the union and respect the decisions taken therein. Needless to say, his actions and behavior as a union member may be in sharp contrast with the actions and behavior conditional on his status as an employee of K_1.
10. It should be noted that the distributions of the attributes at issue differ across organizations. Hence, they exhibit different patterns of reaction to external shocks. On the basis of differences in the distributions of their qualitative attributes, "personal," administrative-market oriented and administrative-state owned or controlled organizations behave differently in the short- and in the long-term. See Petychaki-Henze and Prodromidis (1995).
11. Consider an organization in two different situations. In the one, the distribution of the attributes of its employees is consistent with those in the first column of Table 1. In the other situation, it is consistent with the attributes cited in the third column. Other things being the same, we should expect the organization to perform better in terms of productivity in the first case than in the second. Neglecting the qualitative differences implicit in these alternative regimes leads to erroneous predictions concerning the productivity prospects of the organization. Upon reflection, one could draw a parallel between the potential outcomes emerging from this experiment with the evaluation of the quantitative effects of major policy regime changes, as established by Lucas (1976) in his Critique.
12. The positive relations between organizations can change over time. Under these circumstances, the "heads" of the organizations would be in search of new external collaborators with the purpose of restructuring their organic sets.

Acknowledgments

The authors are indebted to an unknown referee for helpful comments and suggestions, the editor of this Journal for constructive criticism and encouragement, and to Jennifer Cavounidis for comments on an earlier version of this paper. Thanks are due to the late Professor Maria Petychaki-Henze. The usual disclaimer applies.

References

Alchian, A.A., Woodward, S., 1988. The Firm is Dead; Long Live the Firm, A Review of Oliver E. Williamson's "The Economic Institutions of Capitalism." Journal of Economic Literature 26, 65–79.

Akerlof, G.A., 1997. Social distance and social decisions. Econometrica 65 (1), 1005–1027.

Arrighetti, A., Bachmann, R., Deakin, S., 1997. Contract Law, Social Norms and Inter-Firm Cooperation. Cambridge Journal of Economics 21, 17–195.

Arrow, K.J., 1974. The Limits of Organization. Norton, New York.

Bailey, K.D., 1990. Social Entropy Theory. State University of New York Press, Albany.

Ben-Porath, Y., 1980. The F-connection: families, friends and firms in the organization of exchange. Population and Development Review, 6 (1).

Blaug, M., 1990. The Methodology of Economics. Cambridge University Press, Cambridge.

Clark, B., R., 1960. The Open Door College. McGraw-Hill, N.York.

Cyert, R.M., March, J.G., 1963. A Behavioral Theory of the Firm. Prentice Hall, Englewood Cliffs, N. J.

Dietrich, M., 1991. Transaction Cost Economics and Beyond. Towards a New Theory of the Firm. Routledge, London.

Emerson, R.M., 1981. Social Exchange Theory. In: Rosenberg, M., Turner, R.H. (Eds.), Social Psychology: Sociological Perspectives. Basic, New York.

Friedman, J.W., 1986. Game Theory with Applications to Economics. Oxford University Press, New York.

Gillmore, M.R., 1987. Implications of Generalized versus Restricted Exchange. In Cook, K.S. (Ed.), Social Exchange Theory. Sage, Newbury Park Calif.

Granovetter, M., 1973. The strength of weak ties. American Journal of Sociology 78, 1360–1380.

Granovetter, M., 1985. Economic action and social structure: the problem of embeddedness. American Journal of Sociology 91, 481–510.

Granovetter, M., 1994. Business Groups. In: Smelser, N., Swedberg, R. (Eds.), The Handbook of Economic Sociology. Princeton University Press, Princeton NJ.

Granovetter, M., 1995. The Economic Sociology of Firms and Entrepreneurs. In: Portes, A. (Ed.), The Economic Sociology of Immigration: Essays on Networks, Ethnicity, and Entrepreneurship. Russel Sage Foundation, New York.

Hashimoto, M., Raisian, J., 1985. Employment Tenure and Earnings Profiles in Japan and the United States. American Economic Review 75, 721–735.

Hoshi, T., Kashyap, A.K., Sharfstein, D.S., 1990. Bank Monitoring and Investment: Evidence from the Changing Structure of Japanese Corporate Banking Relationships. In: Glenn, R.H., (Ed.), Asymmetric Information, Corporate Finance and Investment. University of Chicago Press, Chicago.

Jarillo, J.C., 1998. Strategic Networks: Creating the Borderless Organization. Butterworth-Heinemann, Oxford.

Levine, R., 1997. Financial development, economic growth: views and agenda. Journal of Economic Literature 35, 688–726.

Lucas, R., Jr., 1976. Econometric Policy Evaluation: A Critique. In: Brunner, K., Meltzer, A. (Eds.) The Phillips Curve and Labor Markets, Vol. 1 of Carnegie-Rochester Conference Series on Public Policy. Amsterdam: North-Holland.

March, J.G., Simon, H.A., 1965. Organizations. John Wiley, New York.

Morishima, M., 1982. Why has Japan 'Succeeded'? Western Technology and Japanese Ethos. Cambridge University Press, Cambridge.

Petersen, M.A., Rajan, R.G., 1994. The benefits of lending relationships: evidence from small business data. Journal of Finance, 49 (1), 3–37.

Petychaki-Henze, M., Prodromidis, K.P., 1995. Qualitative constraints as a tool of economic analysis. Review of Industrial Organization 10, 711–721.

Raub, W., Voss, T., 1986. Condition for Cooperation in Problematic Social Situations. In: Diekmann, A., Mitter (Eds.), Paradoxical Effects of Social Behavior, Essays in Honor of Anatol Rapoport. Heidelberg: Physics.

Schiantarelli, F., Sembenelli, A., 1996. Form of Ownership and Financial Constraints: Panel Data Evidence from Leverage and Investment Equations. World Bank Policy Working Paper No. 1629.

Sen, A., 1987. Rational Behavior. In: Eatwell, J., et al. (Eds.), The New Palgrave, A Dictionary of Economics. Vol. 4. Macmillan Press, London.

Simon, H., A., 1982. Models of Bounded Rationality. 2 vols. Cambridge, Mass: MIT Press.

Simon, H.A., 1987. Behavioral Economics. In: Eatwell, J., et. al. (Eds.), The New Palgrave, A Dictionary of Economics. Vol.4. Macmillan Press, London.

Yamagishi, T., Gillmore, M.R., Cook, K.S., 1988. Network connections and the distribution of power in exchange networks. American Journal of Sociology 93, 833–851.