Chapter XVII

A Framework for Stakeholder-Based Knowledge Valuation in Organizations1

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Knowledge, an essential production factor in the post-industrial society, is not as rigorously measured as organizational tangibles. Several authors in the tradition of intellectual capital measurement and human resource accounting have tried to solve this by the development of one or more metrics. This chapter assumes that valuation is intrinsically subjective and that knowledge to a large extent is subjective. Consequently, it should be approached by subjective valuation methods. The chapter reviews existing knowledge valuation methods for their validity for a specific stakeholder group, and considers Nominal Group Techniques as a way to converge the resulting opinions. This convergence is important for shared decision-making. Following this approach, knowledge valuation is not accounting but much more the creation and facilitation of productive cooperative systems in the economy.

INTRODUCTION

Many authors unambiguously state that knowledge is a key production factor in post-industrial society (Bell, 1979; Drucker, 1994; Stewart, 1997). With ‘knowledge’ these authors mean a collection of skills, information, theories (explanations, predictions and technologies) and effective group norms and values (cf. Boisot, 1998; Leonard-Barton, 1992; Nonaka & Takeuchi, 1995; Polanyi, 1966). More precisely, knowledge is “…a property of experts predisposing them to act in particular circumstances” (Boisot, 1998). Much of this property is owned by a person and may not be explicitly observable. This makes its measurement and valuation from a single (organizational) perspective (e.g. profit) extremely difficult. The owners and users of knowledge may also have very different valuation criteria for probably the same knowledge property. But if indeed knowledge is key, there are many reasons to bother us about the valuation of knowledge. One of the reasons is that the size of
knowledge investments (measured by for instance education costs, number of knowledge workers in an organization and information systems budgets) is increasing (cf. OECD, 1996; Porat, 1977; Stewart 1997). This implies that knowledge investments require more sophisticated ex ante analyses of their profitability in comparison to other investment opportunities. Secondly, sometimes over-investment in knowledge occurs (cf. Stewart, 1997) or uncertainty of revenues leads to under-investments and shirking the responsibility of knowledge investments to the public sector. The point then is to make appropriate investments. But what is an appropriate knowledge investment when knowledge value is so hard to measure? Thirdly, the reward of knowledge is ambiguous. Whereas many rewards are based on the contributions to a firm’s value chain, the intangible nature of knowledge makes it difficult to measure these contributions. Additionally, the effects of knowledge investments are often indirect (Boulding, 1966). All these reasons also complicate the manager’s task of providing equitable financial inducements to knowledge efforts, and could threaten the contribution and effectiveness of providers of vital knowledge sources.

Knowledge valuation methods aim at reducing the uncertainty related to knowledge investments, but whose uncertainty are we talking about? In fact many people are involved in investing in knowledge: lenders, shareholders, top management, employees, and also clients and suppliers. These groups, can be described by their interests, stakes and likely will have different opinions concerning what relevant knowledge value measures and valuations are. What “relevant measures” means here that these measures deliver information needed to decide among competing alternatives on the basis of the decision-makers’ preferences and interests. Some interesting lists of measures exist in the literature but focus on techniques (accounting and non-accounting; Quinn, 1992) or the object of knowledge (human, structural and customer capital; Stewart, 1997) without any reference to the value premisses of stakeholders. Consequently a classification of relevant measures for stakeholders is what may contribute in coping with the uncertainty of knowledge investments. For organizations as a whole, however, this may not suffice, because an organization needs the motivated collaboration of different participants in its cooperative system (Barnard, 1938; March & Simon, 1957). To realize this, the different stakeholders should be able to come into effective discussions and find a shared valuation of knowledge. This chapter will contribute to building this shared value view by proposing a group decision procedure and helping participants to understand each other’s value orientations.

PROBLEM AND STATE-OF-THE-ART OF KNOWLEDGE VALUATION

An overview of knowledge valuation has been written by Bellin (1993). Bellin distinguished three types of the value of knowledge: traffic value, exchange value and use value. The “traffic” value of information is the amount of money and expenses in the generation of knowledge. This quantity of knowledge has been indirectly measured by macroeconomic data like the number of people involved in the knowledge industry and the total return of the knowledge industry (Porat, 1977). Because it does not look at the impact of knowledge, it is a cost-oriented measure.
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