

# Social Capital Prospectively: On Forming and Combining Business Resources<sup>1</sup>

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## Abstract

To understand how actors formulate and combine resources, we propose an account of social capital predicated on action and interaction ahead of the structure and content of social ties and links. There are precedents, in the dynamic resource-based view of the firm and in communities of practice, but these isolate the development of social capital from economic capital and compound resources with social capital and social exchange. IMP models envisage actors drawing out resources into the somewhat precarious and imminent settings of business activities, between social and economic capital, but have yet to capture the implications for resources, social and economic capital of this 'in between' character. We develop a framework and assess it in two cases in which managers have shaped the development of social capital, thereby directing how colleagues combine resources in the pursuit of business activities.

Key words: social capital, economic capital, resources, interaction, business networking

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## 1. Introduction

Social capital is established in policy discourse among companies and public sector organizations but its dynamics are still poorly understood, especially in regard of whether social capital is a resource, is a means of developing resources, and is a means of acquiring resources (Arregle, et al., 2007).

Researchers have made impressive contributions in understanding social capital by assuming an overview of social and business settings and investigating general embedded or structural properties (Granovetter, 1973, 1985; Uzzi, 1997; Burt, 1992, 1999). A significant conclusion of these studies is that social capital is organized in networks, implying radically different concentrations of activities across space and time in the accumulation and uses of social capital, from herds, crowds and crowding out, to sparseness, holes and discontinuities (Adler and Kwon, 2002).

In this paper, we draw on the emerging agenda of the dynamics of social capital in and around companies and their business activities and on IMP models of interaction in order to propose and assess a framework for understanding how actors combine resources. As with many researchers referring to social capital, we are inspired by Bourdieu's (1986) distinction of "forms of capital" and see the practical managerial problem of formulating and combining resources as one of engaging with and drawing upon different kinds of capital. Nahapiet and Ghoshal (1998, p. 244) provide further impetus in understanding social capital dynamically. They prioritize the relational ahead of the structural embeddedness of social capital within the bounds of companies, with the relational being driven by actors' interactions in developing intellectual capital. However, to date the processes by which managers engage with and combine social and economic capitals as they formulate and combine resources and undertake business activities are under-researched.

We see actors formulating and combining resources at the critical intersection of social and economic capital. Hence, resources are potentially a significant means of stability in socio-economic settings in close connection with business activities. Researchers in the IMP tradition have developed a dynamic theory of interaction focussing on business resources (for example, Håkansson and Snehota, 1989; Håkansson and Walusjewski, 2002; Håkansson and Ford, 2002; Baraldi and Walusjewski, 2005; Ford and Håkansson, 2006; Mattsson and Johanson, 2006; Baraldi, et al., 2007). Contributors to the IMP programme have though left implicit or neglected the important tension of how managers can formulate and combine resources, typically by exchanging social capital, in the pursuit of business activities and so in close connection with economic capital. Ford and Håkansson (2006, p. 6) go so far as to remark that "we are still a long way from having a clear understanding of the process of interaction itself in an economic setting".

Our contributions in this paper are to show that: (1) Resources, which managers formulate and combine in the pursuit of their business activities, are hybrids in varying proportions of different forms of capital and especially social capital and economic capital; and (2) Resources always exist in between social and economic capitals, as a moment of transition. By investigating managers' activities in respect of social capital in close connection with business activities, we draw into sharp relief their problems in formulating and combining resources and in negotiating access to others' resources. We expect business actors to conduct their interactions in close connection with social and economic capitals, coping with the different structures, ties, contents and settled ways of activating, accumulating, maintaining, exchanging and using these different capitals as resources.

We develop our argument as follows. In Section 2, we survey the related literatures on forms of social capital, the dynamics of social capital in business settings, and emergent resources in order to plot out the parameters of how managers can draw upon social capital in formulating resources as they pursue their business plans. We introduce our case study material in Section 3, showing how managers encounter the differing realms of social and economic capital, presenting the cases of OilCo and TechCo. Both companies have clear, articulated initiatives in 'doing business networking' as means of formulating and combining resources. In Section 4, we analyse our case studies in order to assess our emerging understandings that: (1) Resources are emerging and imminent; (2) Resources are hybrids of social and economic capital; (3) Managers develop social capital under the shadow of economic capital, in order to formulate resources in their pursuit of business activities. Section 5 concludes by gathering the implications of our paper for further research and for business practice.

## **2. Business Resources and Social Capital**

In this section we begin with a short summary of Bourdieu's (1986) distinction of forms of capital. We then review recent research into the dynamics of social capital in and around companies, and in the IMP tradition of interaction, as actors formulate resources. Drawing on these strands of literature, we identify a research gap. We suggest that managers formulate and combine resources as hybrids of economic and social capitals, simultaneously engaging in markedly different processes with regards to each form of capital in formulating and combining resources given a business plan.

### **2.1 Forms of Capital**

A legacy of the greater focus among researchers on the structural aspects of social capital is that we have come to understand it as essentially in network form (Burt, 1992). Yet in use in instances of business activities, actors acquire resources from and by social capital and bring these into close connection with economic capital. Actors in pursuit of their business plans, their economic calculations and accountability, show that economic capital is situated in an elaborate and articulated complex of metrics, metrology and governance, which in combination go some way to present a view of economic capital as standardized, globalized, fluid, visible, stochastic and objective (Beunza and Stark, 2004; MacKenzie, 2006). Note too that the calculations, such as net present value or real options are prospective, articulating the present value of that capital's future use.

Social capital differs from economic capital in that it is relational and associated with particular actors by virtue of their particular relationships and interactions (Portes, 1998). These actors may or may not hold managerial positions, may or may not be associates of a particular focal company and may or may not wish to engage in exchanges of the social capital that they are involved in. Any exchanges are likely to be the subject of terms and conditions, such as gift, which differ markedly from exchanges pertaining to economic capital. Yet resources are of neither social nor economic capital uniquely (Bowey and Easton, 2007). Blois (2002) and Harrison (2004) both show how business actors require social relationships in order to acquire other resources, such as promising an anonymous relationship in exchange or investing in specific designs and equipment to serve a major customer.

Bourdieu's (1986, p. 51) definition of social capital has seeped into management research: Social capital is the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition – ... to membership in a group – which provides each of its members with the backing of the collectively-owned capital, a 'credential' which entitles them to credit.

Bourdieu argues that the network, the more or less instituted set of relationships, will be “endlessly reproduced in and through exchange” (ibid., p. 52). Exchange is the process by which social capital is maintained, or reproduced, and affirms and reaffirms actors' mutual recognitions, being an “unceasing effort of sociability” (ibid.). Social capital is related with economic, human and symbolic capitals. In particular, the time and energy involved in developing relationships, becoming a member of a group and reaffirming the recognitions by means of exchanges, require economic capital and “specific competence”.

Critically, Bourdieu recognizes that time has markedly different roles with respect to economic and social capital: “there are some goods and services to which economic capital gives immediate access, without secondary costs; others can be obtained only by virtue of a social capital of relationships ... which cannot act instantaneously ... unless they have been established and maintained for a long time, as if for their own sake, and therefore outside their period of use” (ibid., p. 56). Portes (1998) and Callon (1998) emphasize that actors derive resources from social capital in the form of receiving a gift. Time works differently because, in connection with the particular skills that an actor needs to be proficient in working in and with social capital, social capitalists need to develop a skilful charade by which they obscure the economic motives of their activities. Business activities undertaken in the realm of social capital are normal and typical but do not make sense in terms of the usual calculations of economic capital (Bourdieu, 1977, pp. 178-80). The elaborate and skilful charades, the reaffirming of membership, the personal rather than corporate resources, identities and qualities involved, the deploying of time to obscure economic motivations, seem from the stand-point of economic capital risky or uncertain, wasteful, non-accountable and time consuming.

## 2.2 The Dynamics of Social Capital in and around Companies

Arregle, et al. (2007) identify the impetus to the dynamics of social capital within firms in the interactions among a firms’ groups, substantiating their claim by investigating research into family and non-family members of family firms. Arregle, et al. also connect resources with social capital. However, they accept the more static and strategic interpretation of resources, consistent with the resource-based view (Barney, 1991). Rugman and Verbeke (2002, 2004) trace a dynamic, emergent and imminent understanding of resources from Penrose (1959), which is consistent with the body of IMP research, and provides further inspiration for our dynamic and interactive understanding of how managers formulate and combine resources by drawing in significant part on social capital.

Arregle et al. are in part addressing Nahapiet and Ghoshal’s (1998) question, of whether and how firms can gain relative organizational advantage by being more or less capable of generating social capital and intellectual capital internally. Hence, in dynamic approaches to understanding social capital, organizations serve as ways of instituting social interactions and bonds among actors and of facilitating exchanges of resources that otherwise do not fit with economic exchanges in markets. By ‘fit’, we mean that an exchange can be described, performed and reviewed by means of

a contract, performance indicators, and by measurements of stable, objectified qualities (Callon, et al., 2002; Callon and Muniesa, 2005). Nahapiet and Ghoshal and Arregle et al. are able to present dynamic models in which social capital and resources are compounded because they identify the economic capital of firms as a boundary condition (or a parameter), concerned with relationships at arms' length and so not particularly social. In other words, firms in their roles as manifestations of economic capital act generally to institute, obscure the minutiae, and subsidize social capital and resources.

Social capital owes its dynamics to it having a performative capacity in relationships and through exchanges, and being well instituted in an organization and by that organization (Feldman, 2003; MacKenzie and Millo, 2003). Because actors through their interactions are creating and recreating social capital, actors can draw upon the stable and well-ordered offices and procedures of their relationships, of reciprocation and re-affirmation, to develop and work-up business activities, perhaps as projects. Action is not particularly experimental, uncertain and disruptive though. Adler and Kwon (2002) comment in their conclusions that they do not address action because their priority was to understand social capital. They associate action with "managerial implications", of what managers should do with a better understanding of social capital. One of their suggestions is that managers should undertake network mapping of their environment. Mouzas et al. (2008) make a comparable claim, advising managers as to how they can achieve network insight, consolidated for their organizations.

An important step, analytically, in taking action into account as integral to social capital and resources is to distinguish social capital from resources. Resources and social capital are compounded otherwise. But with a clear consideration of action, we can address how actors derive, that is draw out, resources from social capital and often by means of social capital, while they anticipate how they can combining resources in the pursuit of a business activity. In other words, by introducing action such as proposing a business plan, we can understand resources particularly and prospectively in the contexts of social capital and economic capital.

As we seek to distinguish resources from social capital by means of understanding action, the literature on communities of practice is relevant (Lave and Wenger, 1991; Wenger, 1998, 2000), especially with its references in common to Bourdieu (1977). Rather than the development of the somewhat static concept of intellectual capital, as with Nahapiet and Ghoshal, the concept of communities of practice is radically dynamic in capturing local and self-organizing processes of learning (Roberts, 2006). One would not expect senior managers to design or institute the extent of a community of practice, but managers can seek to support communities in and around their firms. In Lave and Wenger (1991), communities of practice are contexts for situated learning and newcomers

can acquire the status of “legitimate peripheral participants” as they become members of the community by demonstrating – and re-affirming – a range of linguistic and material dexterities in accordance with that community.

Our concern with the approach of communities of practice is that, as with Nahapiet and Ghoshal’s account of the firm per se, actors in and around communities of practice seem overly successful in, with reference again to Bourdieu, performing charades and taking and making time so as to disguise and displace economic capital as they formulate and combine resources. Wenger (1998) includes as a crucial dimension for a community of practice, a sense of joint enterprise, but this seems to be internalized with the community, which is often though not necessarily, contained within a firm.

Handley, et al. (2006, p. 650) argue that “the site for the development of identities and practices is not solely within a community of practice but in the spaces between multiple communities”. We can argue the same for firms. Araujo, et al. (2003) present an analysis of the multiple boundaries of the firm. If we are to develop an understanding of how actors develop and combine resources in the pursuit of their business plans, we should recognize the vital role of social capital, loosen its identity with firms as organizing or instituting actors and add the further divisive factor of economic capital rather than relegating economic capital to being a parameter of organizing and instituting. A firm has, simultaneously, boundaries to what are its attempts at instituting social capital, coherence, solidarity and identity, at gathering resources, and being a unit of economic accountability, for instance as providing governance to, amongst others, its shareholders.

Given a perspective that prioritizes action, a strong focus on the boundaries of firms or of communities of practice is unhelpful if this has the effect of isolating the processes by which social capital develops, exchanges are made and resources are combined. These tend to compound social capital, exchange and resource, and isolate the process from economic capital and economic interests. A recent focus in industrial marketing on the co-creation of business service and experience is instructive (Cova and Salle, 2008), and belies a long tradition among researchers in the IMP tradition of seeking to understand the interactions among actors and resources.

### 2.3 Combining Resources

Researchers working within the IMP tradition have in some respects developed a sophisticated understanding of how actors draw upon social capital and other forms of capital in formulating resources (Bowey and Easton, 2007; Batt, 2008; Lenney and Easton, 2009). Adler and Kwon (2002, p. 23) integrate some concepts developed by IMP researchers by distinguish between models of

social capital that emphasize the structure of social ties (accounting for the majority of research to date) and those that emphasize the content. Both approaches are, from our perspective in this paper, static, but the content approach has similarities with that developed in the IMP tradition (Håkansson and Ford, 2002). Adler and Kwon (*ibid.*, p. 35) also advise that we should overcome the dualism of external ‘bridging’ ties and internal ‘bonding’ ties, which again is consistent with IMP research.

The IMP researchers have addressed social capital in the form of actor bonds, in developing empirical research projects using the conceptual frames of the ARA (actor-resource-activity) model and the more recent resource interaction (or four resources) model. Håkansson and Snehota (1989, 1995) presented a model of business activity in which actors within firms and in different firms become dependent upon one another as they develop and pursue their business plans interactively. A firm’s boundaries, which as we have argued in the previous subsection, can appear clear if defined exclusively in terms of either social or economic capital, become blurred and are also of secondary importance, behind the question of how actors formulate and combine resources. Our attention is directed to actors’ interactions in industrial contexts, which transcend firms’ boundaries. Actors are simultaneously combining and formulating resources, marking an advance on the tendency to compound social capital, resources and exchanges, all within firms (considered as locations for communities of practice or as institutors of communities of practice).

There is perhaps an unintended consequence in the ARA model of stratifying and stabilizing social capital as actors have bonds, which in turn can facilitate resources having ties and then activities having links. The resource interaction model (Håkansson and Waluszewski, 2002; Baraldi and Waluszewski, 2005; Harrison and Waluszewski, 2008; Baraldi and Strömsten, 2009) overcomes stratification by presenting four categories of resources, which become the focus of actors’ attempts at combining and further reformulating specific resources, prospective of business activities. Resources may be categorized as relationships, business units, facilities and goods. Given our discussion in this section, it is significant that relationships and business units are predominately social and facilities and goods have immediate economic (and material) dimensions. The activity of combining resources sees business actors at the ‘pinch point’ identified by Bourdieu (1986) of undertaking actions simultaneously in social and economic realms, playing by the rules, customs and manners of social capital and economic capital.

In summary, our main motivation for presenting this review of three overlapping areas of literature was to demonstrate a gap in the literature on how actors formulate and combine resources in prospect of their business plans, to offer an explanation as to why this gap has persisted, and to prepare the ground for designing an empirical research project to address this gap. We are poorer for losing the ‘big vision’ in Bourdieu’s (1986) distinction of forms of capital. Social capital is

interesting in and of itself, but in those particular settings in and around companies and business activities, social capital is interesting because it is not (yet) economic capital. The ‘not (yet)’ implies instability, dynamics and action, which may be calmed by actors’ successful formulations and combinations of resources. Our question is about business actors combining resources in prospect of their business plans. Resources are formulated through actors’ interactions with one another in the context of a business plan, so are likely to be hybrids of social and economic capital, without respect for a particular company’s boundaries. The skill of formulating, combining, adapting and stewarding resources is the essence of interaction, requiring the nuanced negotiation in exchanges which always retain elements of social and economic capital. At the very least, these interactions will have radically different time profiles as actors both adopt the norms of economic exchange and seek skilfully to disguise their economic motives in social exchange (Ford and Håkansson, 2006, pp. 7-10).

### **3. Research Process**

We adopted a qualitative case study approach arising from a collaborative and iterative research project on ‘Doing Business Networking’, which involved eight researchers working closely with six companies. As an under-researched topic, our research design allowed for both abductive and interpretative inquiry involving a combination of empirical observation and a critical review of theory (Eisenhardt, 1989; Eisenhardt and Graenber, 2007; Pentland 1999; Dubois and Gadde, 2002). We pursued engaged scholarship, with a clear focus on investigating processes by which actors formulate and combine resources (Van de Ven and Poole, 2005). We pay due attention to the need to satisfy the conditions of internal and external validity, of insuring a density of data comparison, and a comparison of our empirical findings with those already published.

#### **3.1 Research Design**

We invited key informants from the six companies to an initial seminar in order to scope out the research project in June 2008, followed by meetings with the key informants and two or three of their colleagues in each company. In some cases, our interviewing extended to other related organizations. Researchers working in pairs visited and conducted interviews with members of each company. The research group devised an interview format, allowing a degree of flexibility in order to capture the differences between companies and their markets and industries and giving space for respondents to shape the course of interviews, introducing perspectives that the research team had

not anticipated. We adopted three broad themes of personal, internal and external networking in our interview schedule. We sought to tie in the interviews with descriptions of particularly significant projects that the companies were undertaking at the time. The interviews evolved as stories and required little interjection by the researchers other than prompting questions to cover the sub themes set out in our format. In this paper, we focus on two companies, OilCo and TechCo.

Our interviews took place during autumn 2008 over two consecutive days in OilCo and over a long afternoon at TechCo, both at the companies' premises. The details of our interviewing are in Table 1 (below). We asked interviewees to describe their networking practices and to describe in detail projects or events that involved networking. We also invited interviewees to map the networks if this facilitated description. The intention of our approach to interviewing was to allow interviewees the freedom to define the territory and not be restricted by an over-arching theoretical strand. We undertook the interviews in pairs, recorded these and scribed to capture observations, non-verbal queues and environment. Interviews were transcribed verbatim, coded by the interviewers on paper as a first pass and then using QSR NVivo 8. Another member of the research team, not involved in the visits to OilCo and TechCo, reviewed and moderated our coding.

[Table 1 about here]

### **3.2 OilCo and TechCo**

The circumstances of the two cases lead us to question how, not whether, the actors' attempts at making their networks into resources for and of corporate activity can also be considered as forming and reforming social capital. We selected the case studies of OilCo and TechCo because both companies placed such a strong emphasis on deliberating over and designing their own networks internally, spilling over to some related organizations, a theme which emerged during our initial seminar and which we confirmed during our visits to the companies. It was something of a surprise that we found ourselves analysing the networking practices of two companies as their employees sought to design networks as objects and as instruments to achieve particular and multiple business goals.

OilCo is an established transnational and vertically-integrated oil company. We focussed on its production activities, of acquiring oil and gas from offshore reservoirs and transporting this to refineries on-shore. OilCo's interest in designing networks with a strong internal emphasis emerged during a corporate merger. As with many mergers, senior personnel at the two companies perceived a need to unify their working practices and experiences. Senior executives pursued their visions of

corporate unity by working together in a “clean room”, tasked by their boards with identifying common synergies and setting out a strategic plan. A crucial outcome of the strategizing surrounding OilCo’s merger was a programme for instigating networks internally. Senior managers provided their colleagues with an outline of global networks, established expectations across the company that participation in networking internally would become a norm to be considered during performance appraisals, and provided funding for developing and maintaining networking activities both face-to-face and on-line.

TechCo is a young, successful and multinational technology company, generating embedded software solutions for well-known consumer electronics producers. It is active internationally and its networking had evolved organically as the company had grown. Its internal networking focussed on developing products and some services for its multinational customers. The (to us) surprising insight of our key informant’s initial discussion was that the company enacted a version of graph theory in guiding its internal networking. A significant concern was in identifying paths to solutions, drawing on previous stored traces of knowledge and of course personal experience in working out likely paths through the organization’s members to outcomes. We saw in TechCo an extreme form of mainly internal networking that we observed at OilCo, in which some content of a tie could be codified, reviewed and assessed.

#### **4. Analysis**

We present four examples drawn from our interview data of instances in which actors attempted to formulate and combine resources in the pursuit of business plans. We have selected the examples following principles of theoretical sampling (Eisenhardt, 1989). The four examples provide contrasting perspectives on the phenomena of resources, social capital and economic capital in and around firms, as we identified in our literature review. Clearly, with such small numbers, we are not making claims about a sample being representative of some population at or across some clearly demarcated space and period of time. Rather, following process research and focussing on action, we develop our explanations from the overlapping accounts provided by our interviewees and from comparing our four contrasting examples.

Our first example is from OilCo, of an internal network instituted and supported by the company’s senior managers, with the stated aim of encouraging employees to improve how they

share knowledge following a major corporate merger. Our second example is of the Vessels Safety Committee, an industry-wide initiative involving oil companies, including OilCo, and the sea-faring services sector. Third, we present an incident in which an oil company renowned for ‘going it alone’ drew upon its weak ties including those with personnel at OilCo to share a crucial resource. Fourth, we draw from the TechCo case and examine how a programme of scheduling and recording projects has emerged as the company has grown. The examples are summarized in Table 2 (below).

[Table 2 about here]

#### 4.1 OilCo’s ‘Know-share’

After a significant merger, the new senior management team sought ways of encouraging employees to share knowledge. The overriding aim was solving problems in a cost effective way by mobilising otherwise local know-how and expertise. The merger partners were both transnational oil companies involved in exploration and production of hydrocarbons and with downstream activities leading from refining so personnel in the newly merged organization were well used to working internationally, for instance working on successions of projects in different locations. The ‘know-shares’ instituted employees normal working networks, developed over years often within OilCo and in different locations. Groups of six or more employees could propose a know-share, with one becoming coordinator. The group acquired a discussion forum on OilCo’s intranet and could bid for development funds for face-to-face meetings. We discussed two ‘know-shares’ in our interviews with Stephen and David: logistics and marine safety. Both drew out the tension of forming resources by means of social and economic capital.

Stephen can be termed a social capitalist in the sense of taking an interest and working additional hours to undertake social networking aimed both at developing useful resources and solving problems and also maintaining the social capital of and for itself. He had about 30 years of working experience with OilCo and also identified himself with the industry in the UK and internationally. Stephen voiced a number of frustrations with the ways in which colleagues and senior managers participated in internal networking. While senior managers identified themselves with the initiative and understood that sharing knowledge was a good thing in that it could develop cohesion in the recently merged organization and help colleagues solve problems in less time, they under-estimated the time and effort required to maintain the social capital. Colleagues too were aware of their day job, that devoting time to developing social capital had clearly identified costs associated with it and with benefits that were difficult to qualify. Stephen spoke of the large number

of colleagues associated with 'his' know-share, with fewer than ten truly being active. He also spoke of the need for problems to be raised through the intranet, but then resolved off-line, for fear of alienating members. Specific resource in the safety 'know share' were heterogeneous, being solutions to a wide range of operating problems. For instance, Stephen's current problem involved a small group of people working off-line to address a problem raised elsewhere of fishing vessels regularly encroaching on an oil production facility's safety exclusion zone.

David, who was Stephen's boss in respect of the day job, had recently handed over leadership of a logistics 'know-share'. He approached the coordination of the know-share in logistics in an economic way, devising a series of initiatives that would have measurable outcomes, demonstrating benefits to OilCo over a given period of time. One initiative involved negotiating an amnesty on holding stock and instigating internal exchanges of surpluses across sites. The resources here are clearer, falling within the categories of products and facilities, compared with the resources that members of the safety know-share were developing, as heterogeneous solutions drawing on personal experiences.

#### 4.2 Vessel Safety Committee

The Vessel Safety Committee (VSC) is an institution of some ten years standing in the upstream petroleum industry, instigated by shipping companies as part of their work in supplying oil companies' production facilities. Its membership extends across shipping companies and the government's health and safety executive to include most oil companies. The VSC's mission is to share experiences and practices that can improve safe operations and also capture and communicate lessons learned from accidents. The VSC offers courses to those operating the oil and gas production facilities in order to share awareness of the conditions and constraints with which the supply vessels operate. Of particular concern to the shipping companies is that those operating the production facilities understand how the ships' crews have to behave once inside the safety exclusions zones, 500 metres from each facility.

The VSC is ostensibly non-commercial. Participants in its meetings and courses can push their economic concerns to the background and work for a goal common to the industry of improving safety. Particular practices are also resources as these become articulated or codified and validated by the VSC. However, we emphasise, the 'pushing to the background'. Angus is a member of the VSC's steering group and is compliance manager at BoatCo discussed how the same safety questions were discussed in many forums. That morning, he had been at a quarterly review meeting of another oil company, along with representatives of the other shipping companies currently contracted to that

oil company. A regular standing item in the quarterly review meeting is to review that (commercial) group's health and safety strategy for the operations of offshore supply vessels. Further, Angus took the opportunity of the quarterly review meeting to learn about a recent accident involving one of these other shipping companies and to ask that company's representative to address the VSC.

Stephen represented OilCo at the VSC. He also spoke of gathering experiences and understandings of best practices and lessons from any accidents prior to the VSC, for instance through OilCo's own quarterly review meetings. Hence, the VSC is an institution that can through its normal practices of meetings and courses add a significant incremental stage in drawing out resources of authenticity, legitimacy and verification. Further, once in the ambit of the VSC, actors have often had time to reflect upon the inquiries and discussions held elsewhere, allowing them to represent lessons learned as a version for the industry as a whole. The same industry players discuss and circulate the same cases in their own ostensibly commercial forums, often led by oil companies as main customers.

#### 4.3 Weak Ties and Serendipity

Given the approach of theoretical sampling, it is important to include within an analysis some example, which holds out the prospect of providing a counter instance too the type of phenomena under consideration. This example is has only weak instituted organization and is ostensibly commercial, with economic capital being prominent and social capital fitting quite well with Granovetter's (1973) term, 'weak ties'. Stephen's counterpart at HCOil (a larger transnational oil company) approached Stephen with a commercial proposition that the OilCo and HCOil should investigate sharing the chartering of a particular class of offshore supply ship. Stephen explained that he was surprised to receive the approach because HCOil had for many years made minimal attempts to contribute to what he considered to be the informal exchanges among logistics and safety professionals in the industry, preferring instead to manage activities within HCOil's boundaries. Stephen also described a secondary tendency in which HCOil's personnel acquired leadership positions in some industry-wide safety forums in ways that reflected self interest, as opportunities to steer and shape initiatives.

Stephen's counterpart proposed sharing a vessel, which OilCo had under contract already, using this more intensively to serve both companies' facilities and operations as these were in relatively close proximity offshore. But the proposal was based on an inaccurate understanding of OilCo's contract and intended use for its vessel. Stephen calculated that although his colleague at HCOil was indeed proying a win-win opportunity, the win was fairly small for OilCo and also

introduced additional operational uncertainty regarding which company would have first call on the vessel should uncertainties in operations, such as weather conditions, require a disruption to the basic agreement. At this point, the economic capital, the usual commercial details of contract, over the potentially shared resource, also made the weak ties of social capital visible. Stephen suspected that HCOil were interested in the proposal because of the then high levels of activity in the industry and correspondingly high prices for contracting supply vessels. In other words, HCOil's representative was not proposing that he and Stephen work together to explore a new business model, but rather an expediency, which was undermined by the long history of weak ties and manifest in the poor current industry intelligence revealed by HCOil.

#### 4.4 TechCo's Project Review System

Bruce, one of TechCo's customer delivery managers, made a significant and contentious contribution to our research project's initial seminar by describing networking, which seemed to be performative of graph theory. Some of the contention was due to the other participants at the seminar being unfamiliar with operational norms in software engineering. TechCo's Project Review System (PRS) developed incrementally from normal operating requirements where by software engineers worked in multi-national teams and in different time zones. Further, work activities extended to customers to the extent that TechCo and its customers had rich, interactive relationships.

TechCo required that its software products were under regular review, improvement and adaptation, given their customer's developing and adapting requirements. And team working among TechCo's development groups also required high degrees of codification to allow for coordinated work across time zones, spatial locations and nationalities. These functional and operational codifications also acted to record the contributions of team members to solving problems and working over and reviewing others' solutions. The working conditions appear to be the ultimate digital panopticon. The system seemed open so that all contributes to software development could make inferences as to the abilities of colleagues to solve problems in particular ways, at particular times, and with particular speeds. Bruce mentioned a simple informal metric, which was a colleague's capacity to resolve dilemmas of quality and speed in publishing solutions, or contributing to some overall solutions.

TechCo's PRS provided a more easily metered networking process than OilCo's Know-shares. Its metrology and consequent visibility makes its resources, ad hoc software solutions and reviews, qualified by a quality/speed trade-off, much closer to the firm, understood as a manifestation of economic capital. Yet members of TechCo's software engineering teams seemed to

work fairly comfortably with the PRS, seeing it as normal for the industry and hence in other companies that they had worked for or could work for. Bruce and Edward explained that software engineers were used to collaborating by using standard instant messaging and social networking software. Their working relationships were normalized around an expected sense of spatial proximity, so that even if they happened to be spatially adjacent, they would often use instant messaging to communicate. Many preferred to use instant messaging, social networking and emails to communicate, as it made them feel that multi-tasking would be easier, placing those for whom English was not a native language at less of a disadvantage, where face-to-face conversations could privilege native speakers' abilities to be spontaneous.

#### 4.5 Discussion

Eisenhardt's (1989) guide to undertaking case study research with ambitions to make conceptual contributions remains invaluable. We pursued theoretical sampling in bringing together the four examples set out above in this section, with the over-riding aim of acquiring internal validity. OilCo's know-share and TechCo's PRS are similar, being initiatives instituted within companies and promoted and shaped though not designed by senior managers. Both initiatives bring into sharp relief the tensions of economic and social capital as actors seek to collaborate in developing the resources of stable and valid shared experience, such as templates of good practice, as a means to solving emerging problems. The example of the Vessel Safety Committee instituted, but designed to distance its members from their commercial roles with companies. Finally, the instance of weak ties and serendipity shows the 'weakness of weak ties' where the intended resources have immediate application with respect to economic capital.

The crucial link in our argument, which we sketched towards the end of our literature review, is that actors' actions and interactions coordinate business plans and resources. Further, resources are neither given nor essential, but (following Penrose, 1959) defined by the services these can offer to a business plan. Hence, we expect actors to acquire and formulate resources in the contexts of social capital, and at the same time in anticipation of their imminent application in contexts of economic capital. In Table 3, we outline the dynamics associated with each example's critical resource.

In the example of OilCo's Know-shares, we found in two examples, logistics and safety, two distinct processes. In safety, participants sought a combination of regular information and participated occasionally in solving complex problems. There were few active participants who tended to articulate, co-validate and exchange examples of good practice and makes suggestions as to

what a colleague should do next, again validated by references to the stock of articulated examples of good practice. In logistics, the resource was mobilizing excess stocks of operating components, thereby reducing OilCo's inventory stock globally. The Vessel Safety Committee's resources are again validated articulations of good practice and of lessons learned in the event of accidents and near misses. Crucially, the committee is able to take a little more time and be more reflective than comparable activities within companies and between companies in dyadic commercial relationships in part because its members observe an explicit constitutional commitment to frame their discussions as being 'non commercial'. The counter-example of weak ties and serendipity showed two organizations failing to acquire the resource of sharing the chartering of a particular type of off shore supply vessel. The example of TechCo's Project review system was arguably the most surprising in that it seemed that its clear metrology and economic content would crowd out social capital by restricting greatly actors' opportunities to carry out the skilful charades and obscurings that Bourdieu discusses. The resources were, as in the other examples, providing validated and articulated solutions, here to incremental developments in software engineering.

[Table 3, about here]

By taking a dynamic approach, in which actors' actions, which are necessarily interactions, are motivated by a business plan, and in which resources are imminent with respect to these plans, we show in these four examples that actors formulate and combine resources as translations and transitions between social and economic capital. In the case of OilCo's know-share for safety, the time-consuming activities of reproducing the group's social capital were brought into sharp relief by many participants' understandings of their normal day jobs. The economic costs of participating in the network were quite clear and validated by the normal calculations with respect to economic capital, but the benefits were as we expect in social capital uncertain and likely to occur in an expansive time frame. TechCo's know-share in logistics presented its participants with fewer conflicts as the seemingly simple system of exchange received the authorizing of senior managers and supported the calculations of savings in costs as outcomes and in a time framing that matched the corporate calendar. The industry-wide Vessel Safety Committee also avoided many of the problems experienced internally by OilCo's know-share for safety in that it drew on validation of industry-wide discussion in its lessons and provided a manifestation of each company's public support for the sensitive question of safety. TechCo's Project Review System was surprising in that social and economic capital were brought into very close and often uncomfortable connection as actors' contributions were made visible, often with respect to time. Actors who could address questions

given the contingencies by successfully combining speed and quality were shown to be making valuable contributions to the company's activities, objectively. The system worked in retaining social capital because it was an incremental development on long-established working practices by which software engineers were more comfortable working in teams that were dispersed spatially and in time zones and worked comfortable using email, social networking sites and instant messaging.

Compared with the established research in management studies concerning the dynamics of social capital (Nahapiet and Ghoshal, 1998, Alder and Kwon, 2002; Arregle, et al., 2007) and of communities of practice (Wenger, 2000), we have loosened the association of activities being within company boundaries. In one sense this is fairly trivial and a matter of contingency. However, company boundaries are also manifestations of firms in their function as managers of the governance of economic capital and research within companies can quite easily see the firm and its processes of allocating economic capital as at the edges of the creative and imaginative activities more closely embedded in social capital.

We are inspired by the recent renaissance in the IMP's actor-resource-activity model, which we detect in Bowey and Easton (2007) and Lenney and Easton (2009). Lenney and Easton (2009) address the problem of action in IMP research, as we do. But we differ in understanding action to be endemic, with its subjectivity being most clearly represented in business plans, which in turn 'pass on' subjectivity in explaining what resources are. Resources are for and in service of some business plan, and to the extent that the business actors keep a business plan under review, then so too they postpone the stabilizing of resources as a finalized objective entity. Such an entity would fit easily within the category economic capital as it could be measured and accounted for given the timescale of corporate calendar and exchanged subject to the conditions of 'sharp in and sharp out'.

## **5. Conclusions**

Following Bourdieu (1977, 1986), we have taken seriously in this paper the proposition that social capital and economic capital are distinct forms and processes and that given the context of business activities, resources come to prominent in an imminent form as a transition or translation between the two types of capital. The imminent rather than stabilized and finalized quality of resources is influenced in particular by our view of business plans being manifestations of action, so subject to uncertainty, experimentation and making a difference in business context. We have show how in contrasting examples actors in business settings have encountered the different rules, processes, customs and expectations of social and economic capitals, with correspondingly varying success in formulating and combining resources.

Our paper has theoretical implications. The longstanding interest among IMP researchers in actors bonds emerged at about the same time as research into social capital, but through the ARA model, the resource interaction model and the broader agenda of interaction, IMP researchers have always brought the interests of economic and social capitals into some form of connection. In our view, the resources are still considered in too stable a manner. Actors' business activities are invariable on formulating and combining resources, usually across company boundaries.

In terms of managerial implications, our paper suggests that senior managers require a thorough appreciation of how actors can form and develop social capital in close connection with economic capital. In particular, they require a clear understanding of the radically different time scales relevant to each form of capital, and to the radically different skills required to work with each form of capital. Further, corporate actors should be aware of the intricate and collaborative skills required to work with social capital, which we encountered in the seemingly surprising setting of TechCo.

Our paper's findings are of course contingent on case study research. Further research should adopt the framing of processes (Van de Ven and Poole, 2005), directed in particular at the processes by which resources are both dragged from settings rich in social capital, and resist full assimilation stabilizing and becoming objects with respect to economic capital. But to understand resources, given a perspective of action, we expect that researchers should always have regard to social and economic capitals.

**Table 1, Interviews**

David, Bruce, Robert, Natalie	June 15 <sup>th</sup> 2008	Strathclyde University	3 hours (seminar)	JF, ES, EL, NH, BW, JW
Stephen	21 <sup>st</sup> August 2008	OilCo, Aberdeen	1 hour 55 minutes	JF & BW
Stephen	22 <sup>nd</sup> August 2008	OilCo, Aberdeen	2 hours	JF & BW
Angus,	21 <sup>st</sup> August 2008	BoatCo, Aberdeen	1 hour 20 minutes	JF & BW
David	21 <sup>st</sup> August 2008	OilCo, Aberdeen	25 minutes	JF & BW
David	22 <sup>nd</sup> August 2008	OilCo, Aberdeen	1 hour	JF & BW
Bryan and Ailidh	22 <sup>nd</sup> August	CopterServe	1 hour 15 minutes	JF & BW
Bruce & Edward	17 <sup>th</sup> November 2008	TechCo, Glasgow	45 minutes	NH & MM
Bruce	17 <sup>th</sup> November 2008	TechCo, Glasgow	40 minutes	NH & MM
Bruce & Alex	17 <sup>th</sup> November 2008	TechCo, Glasgow	50 minutes	NH & MM

**Table 2, Social and Economic Capitals and Resources**

	OilCo's Know-shares	Vessel Safety Committee	Weak Ties and Serendipity	TechCo's Project Review System
How are these phenomena?	Corporate initiative upon merger to encourage sharing knowledge, on and off-line aspects	Safety forum instigated by supply vessels companies, supported by HSE, to raise standing of service provision among customers	HCOil's logistic manager used weak ties to suggest a bilateral win-win initiative in context of rising vessel rates	A collection of on-line systems merging software engineering, upgrading, sales preparation & some customer interaction
The extent of being instituted	Senior managers, annual reviews, knowledge sharing awards, performance bonuses,	HSE involvement, propagating good practice, regular meetings, board, oil companies involved	Low levels, counterparts, weak ties	Visibility, monitoring, codification, working across time zones, develops from normal working practices
An event	stock turn, exclusion zone conflict in China, team meeting in Norway, walk to work	Capturing lessons from investigating accidents, courses for rig operators	Deal fell through	Directing sales and software teams in South Korea and India, selling in Japan, gaining a promotion
Focal resource	Ad hoc organization that can draw on experiences, cases, to solve a problem (business unit)	Harmonizing working and operating practices of supply vessels and rigs, with emphasis on improved safety (intermediate products)	Ad hoc business solution, perhaps an experiment, contingent upon the current state of the market (temporary business unit)	Facility emerging from normal practices, necessity of coding and culture of reviewing others' code (facility)
The social capital	Rich interaction, on and off-line, passion for networking or information-takers?	Immediate focus on improving safety	Weakness of weak ties	Preference for communicating with by typing, precision, multi-tasking with software engineering work, time zones, languages, from instant messaging to Linked-In
Surfacing the economic capital	The day job, the heads-up, hours worked, clear partitions	Larger oil companies steering safety solutions, vessel companies seeking less stressful working	Simple calculation of win-win	Do individuals solve problems effectively (time/quality trade-off)? Can sales personnel act with improved & verified versions? Can

		conditions		customers present needs for adapted or un-bugged versions?
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**Table 3, Formulating and Combining Resources**

	OilCo's Know-shares	Vessel Safety Committee	Weak Ties and Serendipity	TechCo's Project Review System
How is the resource acquired?	Combination of on-line enquiry and off-line discussion, reported back in summary on-line. With stock, on-line arbitrage	Formal meetings, training courses, steering group drawing on informal contacts to invite speakers	Negotiations	Formalizing normal working practices, a desire among senior managers to audit software development, especially as company grows and works in multiple countries and time zones, supported by developers' personal networks and regular job changes
What is the business plan?	Capturing benefits of merger as lower operating costs	Improving safety	Optimizing vessel use across companies	Intelligent customizing
What are the other significant resources?	Mature production facilities, logistics activities, small number of strong relationships, wider social group	Quarterly review meetings led by major oil companies, relationship with HSE, oil companies' HSE plans, non-commercial agenda	Contracts with vessels, relationships with shipping brokers, market intelligence of which companies are using which types of vessels for which activities	Relationships with customers, sales business unit, software development business unit
How is the resource regarded with respect to the market?	Benchmarking, internally and especially externally, ie in gas production costs	Safety, honesty and openness, corporate reputation, shaping standards	Ad hoc, opportunistic	Speed of adaptation and improvement, audited
What are the feedbacks to the resource itself, it's setting in social capital, and in economic capital?	Diminishing feedback as volunteering networking is crowded out, social capital has a narrowing base owing to pressures of day job and some need for calculable outcomes, clear that economic capital	Resource adapts and accumulates in applicants such as training programmes, with more use expected, social capital strengthens as transfers from companies' QRMs, economic capital strengthens	Negligible to the resource as normal market activities and processes continued. Negative, as the episode was seen as connected with a current economic and business cycle	Surprisingly positive in all three counts, though not without tensions and instabilities. Colleagues were accustomed to working subject to codification, making their work visible informally in personal networks

	funds social capital through work time	through HSE strategies, could be undermined by steering and shaping	rather than with an attempt to develop a business relationship.	anyway, and the corporate system developed incrementally from these usual practices as a means of coping with the company growing and also acquiring a large size.
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