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Towards the development of a social capital approach to evaluating change management interventions

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Abstract

Many of the issues associated with the inefficiency and ineffectiveness of information systems development (ISD) have been attributed to the poor relationship between business and IT colleagues. Relational issues relating to collaboration and communication before, during and after ISD lead to dissatisfaction with information systems and services. To address these relational issues, many organisations have introduced relationship management initiatives (RM). Yet, their effects have been debatable. This paper argues that this is partly because there is no appropriate evaluative framework for RM. In response, this paper proposes a framework, based on social capital theory, for conceptualising the effects of change management interventions in the poor relationship between business and IT colleagues. The research adopts a case study approach to this end. It explores the strengths and limitations of the approach and suggests new directions for its further development. Overall, the research shows that there is a potential merit in using a social capital approach for the evaluation of change management interventions that aim to improve the collaboration between business and IT, during ISD and beyond.
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Introduction

The inefficiency of information systems development (ISD) and ineffectiveness of IS have been attributed, at least partly, to the poor relationship between business and IS colleagues (Poulymenakou & Holmes, 1996; Ward & Peppard, 1996; Peppard & Ward, 1999; Reich & Benbasat, 2000; Doherty & King, 2001). In particular, differences in perceptions, goals and interests, conflicts in interactions and communication breakdown (Sommerville & Rodden, 1996; Sauer *et al.*, 1997; Kunda & Brooks, 1999; Seddon *et al.*, 1999) have been directly associated with failures of the ISD process.

Organisations seek, therefore, to improve the quality of the relationship between business and IT colleagues, in order to achieve organisational goals and extract more value from IT. Relationship management (RM) is one such intervention (Henderson *et al.*, 1995). It is mandated with removing barriers such as distorted facts and beliefs, negative feelings, and interpersonal conflict to increase the breadth and strength of bonds between business and IT and to improve work processes (Henderson, 1990; Henderson *et al.*, 1995; Iacono *et al.*, 1995; Subramani *et al.*, 1995). Research suggests that relationship managers serve liaising roles that range

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from intermediaries to change agents and entrepreneurs, and have different degrees of leeway and impact on organisations in different settings and based on their personal capacities (Iacono *et al.*, 1995). As intermediaries, they focus on a case-by-case resolution of collaboration issues, often associated with systems development and maintenance processes, while as entrepreneurs they focus on effecting longer-term changes in cross-functional processes, in order to ensure the success and good reception of IS and related practices (Iacono *et al.*, 1995).

To achieve these ends, relationship managers counsel across a variety of working issues such as how to coordinate (a) activities to handle minor or major *ad hoc* problems that cause client dissatisfaction, (b) activities aimed at achieving cross-functional integration to compensate for the existence of unsatisfactory formal processes and (c) activities that aim to introduce and champion opportunities for organisational and IT-enabled change (Subramani *et al.*, 1995). Yet, as in the case of many change management programmes, RM evaluation suffers partly from the lack of an appropriate evaluative framework (Skinner, 2004). Thus, the role of RM in improving the quality of the relationship between business and IT colleagues and improving value extracted from IT is ill-defined and understood (Subramani *et al.*, 1995). In response, this paper introduces social capital constructs as a means of developing an evaluative approach in order to provide significant insights into whether, and in what way, change management interventions tackle successfully the human and organisational aspects of systems development that lead to dissatisfaction with IS. Using a case study approach, we seek to explore the fit of social capital theory for developing appropriate evaluative frameworks for change management interventions.

The structure of this paper is as follows. First, the rationale for the selection of social capital theory as an approach for evaluating change management interventions is explored. An evaluative framework based on social capital constructs is developed and explained. Then, empirical findings from the application of the framework in a real organisation are discussed to gain insight into its appropriateness as an evaluative framework for assessing change management interventions. Finally, implications for theory and practice are discussed.

The social capital approach

Social capital is defined as 'the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit' (Nahapiet & Ghoshal, 1998, p. 243.). The construct of social capital was introduced to highlight the importance of networks of strong, personal relationships developed over time across groups that provide the basis for trust, cooperation, and collective action in communities (Jacobs, 1965). Social capital theorists advocate that increases in social capital increase social outcomes, such as access to knowledge and expertise, expectancy, motivation and capability to collaborate; thus impacting positively on operational outcomes like creativity, innovation, decision-making quality, collaboration and coordination of work that improves the quality and efficiency of strategic decision-making and implementation (Cohen & Prusak, 2001). Since, the relationship between business and IT colleagues during and beyond ISD suffers from deficits in these areas, social capital seems to offer a useful construct for highlighting and evaluating the strength of personal relationships across business and IT groups. Consequently, it is assumed that the success of change management initiatives that seek to improve the relationship between business and IT colleagues can be evaluated by changes in social capital. For this paper, changes in social capital are assessed by exploring the changes witnessed in each of its three operational dimensions, namely relational, cognitive and structural (Nahapiet & Ghoshal, 1998), as defined below.

The relational dimension is conceptualised as the ongoing personal relationships that people fulfil; such social motives as sociability, approval and prestige influence their personal and emotional attachments, and consequently, their behaviour. The dimension encompasses levels of trust and trustworthiness between actors (Putnam, 1993; Fukuyama, 1995), norms and social sanctions embedded in social conduct (Coleman, 1990; Putnam, 1995), the system of mutual obligations and expectations (Mauss, 1954; Granovetter, 1985; Coleman, 1990; Burt, 1992), and levels of identification and perceptions of social identity (Merton, 1968; Hakansson & Snehota, 1995). Increases in the relational dimension has been associated with increased access to others' knowledge and resources; increased expectancy of value from collaboration; motivation to and, finally, capability to collaborate. These aspects in turn, are associated with improved creativity, innovation and coordination of work (Cohen & Prusak, 2001).

The cognitive dimension highlights the importance of shared representations, interpretations and systems of meaning among parties significant for strategic decision-making (Cicourel, 1973). This dimension represents shared language and codes (Cicourel, 1973; Arrow, 1974; Monteverde, 1995) and shared narratives (Orr, 1990), and is particularly important for explaining why social capital resides in the interaction of parties, by default (Burt, 1992), and cannot be either owned or traded by any one party. Increases of the cognitive dimension have been associated with higher access to others' knowledge and resources, leading to improved creativity and innovation, and increased expectancy of value from collaboration that improves coordination of work (Cohen & Prusak, 2001).

The structural dimension is concerned with the overall pattern of institutionalised connections between actors. It is characterised by the density, connectivity and hierarchy of relationships between actors and their organisational flexibility to serve multiple purposes (Coleman, 1988) that determine the presence or absence of ties between actors (Scott, 1991; Wasserman & Faust, 1994) and the pattern of linkages (Tichy *et al*., 1979; Krackhardt, 1990). Positive changes in the structural dimension have been associated with increased expectancy of value from collaboration and capability to combine knowledge and resources that improve the coordination of work, and also increased motivation to collaborate that significantly impacts on creativity and innovation (Cohen & Prusak, 2001).

Because there is no previous application of social capital for the evaluation of change management in organisations (Kessels & Poell, 2004), we followed Grootaer & van Bastelaer (2002) suggestions on measuring social capital dimensions. Hence, the relational dimension was measured through proxies of trust and adherence to norms, the cognitive dimension was measured through proxies of voluntary collective action, and the structural dimension was measured through proxies that indicate the density and patterning of relationships. Consequently, we propose to evaluate the success of change management initiatives that seek to improve social capital and, thus, the relationship between business and IT colleagues, which is central to effective ISD, via:

- Increases in the levels of trust and reciprocity, which have a positive impact on efficiency of coordinating work (relational dimension).
- Increases in the levels of shared understanding and commonality of interests, which have a positive impact on efficiency of coordinating work (cognitive dimension).
- Increases in the span and 'tightness' of the network of people sharing these relational qualities, which has a positive impact on levels of creativity and innovation (structural dimension).

Figure 1 summarises the rationale of the social capital approach to change management evaluation. The continuous lines, in Figure 1, represent the relationships between social capital dimensions, social outcomes and operational outcomes, already supported by the literature (see Coleman, 1988; Nahapiet and Ghoshal, 1998; Cohen & Prusak, 2001). The dotted lines represent the relationships between change management interventions and social capital proposed in this paper.

Methodology

An initial case study was used for the purpose of creating or advancing the conceptualisation and operationalisation of social capital theory to explain the role of change management initiatives, relating, but not limited, to ISD. A case study approach was selected as it is better for combining theoretical understandings and inductive inquiry to ground and contextualise previously unconnected theoretical areas (Dooley, 2002). The following sub-sections describe the selection of the case, the data collection procedures and data analysis, to ensure the validity and reliability of the study.

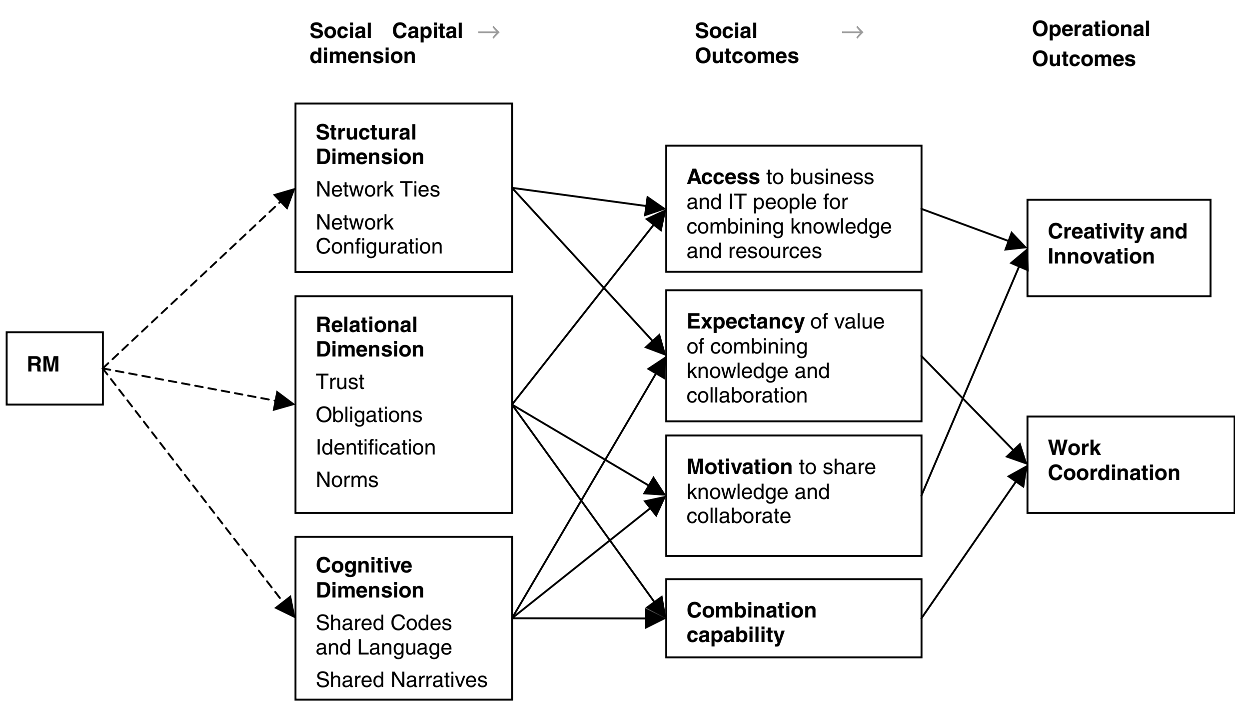

Figure 1 The initial evaluative framework, showing the relationships between social capital dimensions, social outcomes and operational outcomes.

Selection of the case

FinCo, a large financial institution in the U.K., was deemed an appropriate case for studying the social capital approach to change management evaluation. FinCo has followed the U.S. and U.K. tendency to separate business and IT activities, implicitly creating a 'barrier' between them (Currie, 1994). In particular, the relationship between the Retail Banking division and the centralised IT division was characterised by lack of synergy, mistrust, communication and collaboration issues, and political tension between members of each division. Retail banking comprised units catering for customer service, retail sales and information management and was relatively distributed. The centralised IT division comprised units catering for solutions delivery, infrastructure and architectures and support.

The RM intervention studied in FinCo was typical of its kind (Henderson *et al.*, 1995; Iacono *et al.*, 1995; Subramani *et al.*, 1995) in the following ways. First, the RM team was mandated with improving the relationship between business and IS colleagues. The team officially reported to the head IS, but was also accountable to the head of Retail banking. Second, the RM intervention was comprised of people whose sole responsibility was to improve the engagement between business and IS. The team comprised two people recruited internally – one with an IS management background and one with a retail banking management background – and a further person, recruited externally for her experience in customer relationship management in another organisation. Third, senior management was not involved with the development of an intervention strategy or approach, but set its performance goals, in broad terms. In the case of FinCo, these goals entailed addressing the root causes of systems' availability and performance, project delivery, and communication, or the lack of one team mentality between business and IS colleagues, in order to improve the performance of the organisation on matters. The day-to-day activities of relationship managers resembled those described elsewhere (Henderson *et al.*, 1995).

Data collection procedures

Data collection and analysis followed a responsive approach to evaluation, which sought to identify the relational concerns of stakeholders (Guba & Lincoln, 1981). This is in line with Grootaer & van Bastekaer's (2002) recommendation to use qualitative and quantitative methods in order to measure social capital in culturally sensitive ways and focus its measurement on activities that stakeholders consider appropriate for collective action. Based on this approach, the design evaluation used interviews, observations and documentation analysis to provide rich descriptions of the effects of the intervention on the quality of the relationship between business and IT. Evaluation took place 9 months on from the formal introduction of RM.

Initially, a survey was conducted using an electronic questionnaire to collect feedback on the perceived changes introduced by RM and its impact on social capital. Questionnaires were returned electronically to the researcher responsible for data collection and were structured in two sections. The first section elicited participants' perceptions about the three main changes introduced by RM, to urge respondents to report the most significant changes and constrain the quantity of responses. The second section prompted participants to rate the degree of change effected by RM on social capital proxies based on a standard 5-point Likert scale presented in Table 1. Measurement proxies were developed based on a contextualisation of social capital dimensions derived from a previously conducted internal survey that had identified four areas of concern about the relationship between business people and IT: (a) synergy; (b) communication; (c) focus and (d) partnership.

To illustrate the process of how proxies were derived, an example is presented. During the internal survey, a Likert scale was developed to measure business people's perceptions about the current performance of IT people and the importance of the issue represented in this statement for business people. For example, one aspect of communication was measured by the following statement: 'We [IT people] communicate in a clear and timely manner'. This statement was adapted for use in this study in the following way: '[Relationship managers have] helped IT/business colleagues communicate in a clear and timely manner', which appears under the cognitive dimension in Table 1. This adaptation served two purposes. First, it aimed to understand the role of relationship managers in changing others' communication clarity and timeliness. Second, it raised the issue of business colleagues' communication, which was ignored in the original internal study, in order to locate the impact of RM.

These concerns qualified the social capital 'deficit' in FinCo, while the survey items that identified these concerns were subsequently used as contextualised proxies for 'measuring' social capital dimensions. The mapping between the cognitive and relational dimension of social capital and proxies is represented in the two leftmost columns of Table 1. To estimate the impact of RM on these dimensions, a scale was developed, which ranged from one to five, indicating minimum to maximum contribution, and included three extra columns – '0', which represented no perceived effect on the item; 'NA', indicating items where RM was not expected to make a contribution, and 'DK' indicating items where participants felt they did not have enough relevant information to answer the question. The intention of the questionnaire was to indicate general trends and provide discussion pointers to promote further inquiry. The structural dimension was not measured through the questionnaire for two reasons. First, no previous qualification existed of the actors and relationships that internal people consider important for collective action in the context of the business–IT relationship on which to base a quantitative measurement nor was this able to

Table 1 Survey findings of participants' perceptions with regards to the cognitive and relational dimension of social capital

	Relationship management has…	*0*	*1*	*2*	*3*	*4*	*5*	*NA*	*DK*
Relational dimension	Helped business and IT colleagues be open and approachable in their dealings	1	1	1	1	6	3		
	Promoted two-way dialogue between business and IT	1		2	1	7	2		
	Encouraged trust between business and IT colleagues	1		2	4	4	2		
	Enabled IT colleagues work in partnership with their colleagues, to agreed timescales	1		5	3	2	1		1
	Enabled business colleagues work in partnership with external organisations for the benefit of the FinCo Group		1	5	1	1			5
	Helped business colleagues maintain a clear perspective on the business value of IT at all times		1	3	7	2			
	Facilitated business and IT work as one team for the benefit of the FinCo Group	1		1	7	2	2		
	Facilitated business and IT work as one team for the benefit of the FinCo Group	1		1	7	2	2		
	Encouraged collaboration and synergies between business and IT		1	3	5	2	2		
	Helped IT colleagues recognise the need for urgency in all that they do	1		1	4	5	1		1
	Enabled opportunities for IT colleagues develop	1		1	2			1	8
	Helped IT managers recognise and reward the contribution of IT colleagues	1	1	1	1	1		1	7
	Empowered IT colleagues to do their job effectively	1		1	2	1		1	7
	Empowered business colleagues to do their job effectively			3	3	3		2	2
	Helped IT managers lead by example	1	2		3	1			6
	Encouraged IT colleagues celebrate success	1	1	1	1	1		1	7
Cognitive dimension	Helped IT colleagues communicate in a clear and timely manner		5		4	2		1	1
	Helped business colleagues communicate in a clear and timely manner	1	2	1	4	3		1	1
	Encouraged innovation and creativity from IT colleagues	1	3	1	2	2	1	1	3
	Encouraged innovation and creativity from business colleagues	1	3		3	1	1	1	3
	Helped IT colleagues continue to improve in all that they do	1	1	1	4	4		1	2
	Helped business colleagues continue to improve in all that they do		1	1	8	1		1	1
	Helped IT colleagues continue to learn		2		4	4		1	2
	Helped business colleagues continue to learn		1	5	2	3		1	1
	Helped IT colleagues take ownership for their work	1		1	5	4	1		1
	Facilitated IT colleagues share their ideas and opinions with business colleagues	1		2	4	4			2
	Facilitated business colleagues share their ideas and opinions with IT colleagues	1		5	5	1	1		
	Encouraged IT colleagues to share knowledge and expertise		4	3	3	3			
	Encouraged business colleagues to share knowledge and expertise		1	2	4	3	2		1
	Encouraged a learning culture	1	2		6	4			

Note: The two leftmost columns map social capital dimensions to social capital measurement proxies. The scale 1–5 scale represents a standard 5-point Likert scale. '0' represents no perceived effect on the item; 'N/A' indicates no expectation to impact on the item and 'DK' indicates no sufficient knowledge about the impact of RM on the item.

be obtained at the time of the evaluation exercise. Second, previous research has used in-depth interviews, group workshops in order to provide Venn diagrams and flow charts that outline the networks of actors and relationships (Grootaer & van Bastelaer, 2002). Thus, a short, online questionnaire was considered inappropriate for eliciting appropriate findings. To get an idea of respondents' perceptions and attitudes towards the effects of RM on their cross-functional relationships (which are key to the structural dimension) however, relevant questions were asked during the follow-up interviews described below.

Questionnaires were followed by semi-structured, telephone interviews for two reasons: (a) to further explore the views of participants and (b) to inquire about issues relating to structural social capital. The structural dimension was investigated only through the follow-up interview, for the reasons explained above. Questions relating to the structural dimension inquired about past experience, present practice, and future expectations about collaboration with cross-disciplinary colleagues, in order to explore changes in the frequency of direct communication; changes in the number and type of cross-disciplinary colleagues to which they gained direct assess; and changes in patterns of collaboration and group-work. Attempts were made to contact all respondents, one without success. That questionnaire was, therefore, excluded from analysis. Telephone interviews were recorded and transcribed.

Sixteen middle and upper business and IT managers took part in the exercise. This sample represented 50% of business and IT staff whose work relationship managers facilitated in a regular, rather than one-off basis. Fourteen out of 16 participants responded to the evaluation exercise. These managers had liaised with relationship managers over the previous 9 months and had remained in the same role despite the downsizing that was taking effect at the time. Out of the 14 questionnaires, one was excluded due to omissions by the respondent and they could not be contacted for a follow-up interview. Thus, 13 usable questionnaires and follow-up interviews were considered for analysis. Business staff were represented by five programme/project managers and three channel managers, whilst IT staff were represented by three systems developers and two operations managers.

Data analysis

Analysis of quantitative data recorded the frequency of interviewee responses on the scale of Table 1. Frequency data were recorded for each column of the scale presented in Table 1. For example, for first item of the scale: *'Helped business and IT colleagues be open and approachable in their dealings'*, out of the 13 participants, one rated the impact of RM as 0 or none, one rated its impact as 1, one rated its impact as 2, one rated its impacts 3, six rated its impact as 4, and finally, three rated its impact as 5. Questionnaire data were analysed to indicate general trends and provide pointers for further inquiry through follow-up interviews. It is worth noting that quantitative data were not elicited and therefore not analysed for the structural dimension.

Qualitative content analysis was used to analyse the verbatim questionnaire data, along with interviews, following the procedures described in Mayring (2000) that demand multiple iterative cycles of analysis. Social capital constructs were used as sensitising concepts or 'directions along which to look' (Blumer, 1969, p. 148) to develop a coding agenda. This agenda was subsequently used to deploy thematic analysis in order to contribute to the development of grounded knowledge. Interviews were transcribed and coded using a proprietary data coding tool. Paragraphs were used as the basic unit of analysis to capture context and allow for multiple passes and coding. Identified themes were compared with the literature, in order to encourage deeper insights and reinforce the credibility of findings. Thematic analysis was undertaken by different researchers in order to ensure that interpretation of the framework was flexible enough to account for contextualisation and tight enough to maintain the internal coherence within each dimension. Emphasis was placed on participants' attitudes and nuances that gave meaning to interviewees' questionnaire responses.

Research findings and discussion

As stated in previous sections, this paper examined the case of RM to better define the role of change management initiatives in information systems development, by using social capital constructs to examine the case of RM, as an initial example. It was proposed that by improving the social capital dimensions, RM will positively impact on social outcomes, such as access to others' knowledge and resources, as well as developing greater expectancy, motivation and capability to combine knowledge and resources. Consequently, creativity and innovation and work coordination between business and IT colleagues will improve, during and beyond ISD. Table 1 summarises the questionnaire findings. Note that there are no questionnaire findings regarding the structural dimension, for reasons explained in the methodology part of the paper. The following sections present research findings and insights about the three social capital dimensions.

Relational dimension

With regards to the relational dimension, we proposed that RM would lead to increased levels of trust and reciprocity and would therefore have a positive impact on efficiency of coordinating work. As defined in Figure 1, the relational dimension comprises four aspects: trust building, obligation enhancement, norms changes and identification fostering. Hence, the discussion of data is organised under these headings. Survey findings are discussed first, followed by findings from follow-up interviews.

A summary of initial survey findings about the perceived effects of RM on different aspects relating to the relational dimension of social capital are presented in Figure 1.

- *Trust building*. RM helped business and IT colleagues to be open and approachable in their dealings by fostering two-way dialogue and encouraging trust between business and IT colleagues.
- *Obligations enhancement*. To a lesser extent, RM has also enabled IT colleagues to develop mutual work obligations in order to work in partnership with their colleagues to agreed timescales. It also helped business colleagues to work in partnership with external organisations for the benefit of the FinCo, indicating some improvement in coordination efficiency.
- *Norm changes*. Participants were unaware of the contribution of RM to changing organisational norms with respect to increasing appreciation and respect of IT work lacking in FinCo. The contribution of relationship managers to enabling opportunities for IT colleagues to develop, get recognised and rewarded for their effort remained unnoticed; as was their contribution to changing IT management practices.
- *Identification fostering*. RM was initially seen to foster identification between business and IT as it had enabled both groups to work as one team for the benefit of the FinCo Group.

Follow-up interviews raised issues relevant to the nature of RM impact, with respect to the previous social capital aspects. Table 2 presents the relevant research findings, with additional explanations given below:

- *Trust building*. RMs established strong bonds between themselves and colleagues within business and IT units by openly entertaining issues of concern, putting people at ease, and communicating information about organisational processes.
- *Obligation enhancement*. Recent threats of the survival of the organisation have increased mutual obligations and work-coordination between business and IS colleagues, without altering perceptions about each other's pro-social intents. RM interventions have helped business colleagues perform their jobs more effectively as a result of relationship managers better defining the roles and responsibilities of business and IT people and monitoring their adherence.
- *Identification fostering*. Lack of identification and maintenance of the 'us–them' mentality has been blamed on the effective intermediation of RM.
- *Norm changes*. RM helped business and IT people avoid, rather than deal with conflict, which reduced aggravation between functions and allowed IT people to concentrate on delivering IT solutions.

In conclusion, research findings about the effects of RM on the relational dimension were mixed. On the one hand, increased motivation, ability and expectancy of the value from collaboration with the relationship managers led to increased reciprocity between business and IT colleagues resulting in positive impact on operational outcomes making RM the essential link through which efficiency in work processes was achieved. Despite initial findings, the levels of trust between business and IT remained low, as RM intermediation increased complacency and lack of belief in the pro-social motivations of inter-functional colleagues, maintaining lack of identification. Hence, apparent positive effects on conflict-resolution and work-coordination do not seem to be based on increased levels of trust, or an individual's motivation to reciprocate, which may challenge the sustainability of operational outcomes beyond the remit of the intervention.

Cognitive dimension

With respect to the cognitive dimension, we proposed that RM would lead to increased levels of shared understanding and commonality of interests, and was expected to have a positive impact on efficiency of coordinating work. Initial questionnaire findings suggested the following:

- *Sharing narratives*. RM helped IT colleagues to take ownership for their work, share their ideas and opinions with business colleagues. It also encouraged business people to share knowledge and expertise and was seen to facilitate a learning culture. To a lesser degree, RM influenced IT colleagues to share knowledge and expertise and business colleagues to share ideas and opinions with IT colleagues.
- *Sharing codes and language*. The contribution of RM in helping IT colleagues communicate in a clear and timely manner, continue to learn and improve in all that they do was considerable. Yet, the impact of RM on innovation and creativity and their influence on business colleagues to communicate in a clear and timely manner or learn was minor.

During follow-up interviews, however, it was revealed that RM had the following interesting effects with regards to sharing common understanding across functions. Table 3 summarises the findings.

The impact of the RM intervention on the cognitive dimension can be considered moderately beneficial, in the short term. On the one hand, by clearing the lines of communication between the two groups and helping others integrate strategic information in operational plans, RM increased access to knowledge and efficiency in work coordination between business and IT colleagues. On the other hand, due to its intermediation, RM did not help business and IT colleagues to develop their own communication skills, restricting their capability and motivation to combine their knowledge and skills. Consequently, the findings raise questions regarding the sustainability of positive operational outcomes beyond the remit of RM intermediation. So, while improved understanding can be observed through sharing of narratives, there is no strong indication that RM enabled

Table 2 Interview findings with regards to the relational dimension

Aspect	*Finding*	*Quotation*
Trust building	RMs established strong bonds between themselves and colleagues within business and IT units by openly entertaining contingencies, interdependencies and complications that elicit a sense of togetherness.	*I never doubted that we [Relationship managers and I] are in this together. We would pull it through somehow.* (Programme coordinator)
	Relationship Managers would cultivate their relationships with others by putting people at ease. The would collect experts opinions to advise on matters of concern and communicate information about organisational processes.	*My Relationship Manager is brilliant in this respect. Whenever I want something I just have to call her. She will tell me what I need to know or find out for me or clue me in what is happening and who I need to talk to.* (Call Centre Manager)
	Participants reported that their personal ties with colleagues from the other functions have loosened.	*Once upon a time, when they [business people] had a problem, they would come to us and we would discuss it. We have worked hard to get there. Now all we know is what RMs [Relationship Managers] tell us.* (Operations Manager)
Obligation enhancement	Mutual obligations have increased as a result of intensified market competition that challenges the survival of the company.	*We work more closely. We have to. It is a crazy out there and we have to give our best, otherwise forget about it.* (Call centre manager)
	No increases in positive perceptions about others' motivation to seek synergies or work in partnership were expressed, despite admissions of improved work coordination.	*They do it because my Relationship Manager asks them [IT people] to do it, so they do it.* (Project Manager)
	RM interventions have helped business colleagues perform their jobs more effectively by RMs setting by better defining the roles and responsibilities of business and IT people and monitor their adherence.	*RMs have helped us get practical business relationships that have a bit more process around them.* (Programme Manager)
Identification fostering	Effective intermediation has been blamed for the lack of identification and maintenance of the 'us–them' mentality.	*RM has decreased instances of aggravation, but perpetuated the 'us-them' mentality.* (Project Manager)
Norm changes	Relationship Managers acted as a convenient representative to buffer IT managers from time wasting meetings, direct conflict and aggravation, so IT managers can deliver IT solutions.	*I don't need to sit in endless meetings, take calls or trying to find out who I need to inform about this and that anymore. So, I can concentrate on what needs to be done.* (Systems development manager)
	RMs has changed the way that intra-functional conflicts were handled, diminishing aggravations.	*The best thing about Relationship Managers is that keep the tones down and get to the facts.* (Systems development manager)

Table 3 Interview findings with regards to the cognitive dimension

Aspect	*Finding*	*Quotation*
Shared narratives	By having first-hand view of the strategic direction of the organisation, RM had accurate and prompt strategic information and knowledge to shape operational plans and advise on solving operational issues across and within business and IT units.	*[Relationship Managers are] helping us to understand the issues and challenges facing the IT teams and how we can try to schedule projects taking into account dependencies and constraints.* (Programme Coordinator)
	RM has helped the organisation to share narratives efficiently by clearing the lines of responsibility across departments and instilling transparency in their communication, diminishing favouritism and increasing adherence to institutionalised processes. Some, however, thought that business processes have become more bureaucratic.	*It is transparent 'who does what' within IT, that does not allow the business to get away with things… It has tighten decision making.* (Programme Manager)
Shared language and codes	RM intervention has not, however, helped others to develop their own capabilities to find and maintain common grounds with colleagues of the other function casting doubts about the sustainability of shared narratives.	*I don't have time to go to speak to people within each of the department of IT and there is no need as Relationship Managers get my job done… if they weren't there the job would still be done as it used to, it won't as efficient as now but it will get done eventually.* (Programme Manager)

the development of skills for sharing perspectives which might contribute to longer-term sustained outcomes.

Structural dimension

RM was expected to expand the network of people sharing the relational qualities represented by the relational and cognitive dimensions and was expected to have positive impact on levels of creativity and innovation. As was explained in the methodological section of the paper, data about the structural dimension were not collected via questionnaire for reasons explained above. Therefore, findings regarding the structural dimension are only derived from follow-up interviews. Table 4 presents indicative findings. RM had both positive and negative impacts on the structural dimension.

- *Network ties*. Overall, three participants mentioned positive and one negative changes in the frequency, number or type of direct communication across disciplines were brought about during the tenure of RM. The degree of indirect access to knowledge and expertise colleagues within the other divisions has considerably increased through mediation of RM. Relationship managers played the role of liaisons who access knowledge and expertise of departments upon request (see quotes 13, 16, 18 – in Table 6 – for example). In rare occasions, they were asked to gather multiple stakeholders together to discuss project coordination issues and interdependencies and resolve resource conflicts or to put people in touch with appropriate others. *Ad hoc* network links created to solve issues have not formed regular collaboration ties, as interviewees' inability to name the persons, job titles or units of their cross disciplinary links indicated (see Table 4).
- *Network configuration*. Collaboration patterns have not changed to reflect the degree of interdependence between business and IT. On the contrary, the introduction of RM has weakened and loosened the bonds between business and IT. Some felt that RM intervention somewhat cut off pre-existing ties between business and IT department. Lower ranking channel managers admitted, however, that it was easier to raise issues and lobby with relationship managers to press issues into the top management agenda, thereby speeding up communications. For business managers who were physically separated from headquarters, RM was seen as their link to the core of the organisation for issues outside the IT remit, such as marketing strategies or financial product development and the like. Moreover, RM provided a conduit for operational issues, corporate programmes in progress, decisions taken and/or under consideration between senior and operational levels (see quotes 2, 8–12, 23 – in Tables 5 and 6 – for example).

Findings indicate that the impact of the RM intervention on the structural dimension was to act as the 'missing link' and a conduit for communication between

Table 4 Interview findings with regards to the structural dimension

Aspect	*Finding*	*Quotation*
Network ties	*Ad hoc* network links created to solve issues that have not formed regular collaboration ties, as interviewees' inability to name the persons, job titles or units of their cross disciplinary links indicated.	*Interviewer- You mentioned before that your relationships with business people become stronger. Can you tell me who do you get in liaise from the business?* *Interviewee – Well I don't remember names* *Interviewer – how about their title or... function?* *Interviewee – Hm... I don't remember right now.* (Channel manager)
Network configuration	The RM intervention somewhat cut off pre-existing ties between business and IT department.	*Once upon a time, when they [business people] had a problem, they would come to us and we would discuss it. We have worked hard to get there. Now all we know is what RMs [Relationship Managers] tell us.* (Operations Manager)
	It is easier to raise issues and lobby with relationship managers to press issues into the top management agenda.	*It's easy to raise issues with relationship managers. I will talk to them and they will know who to raise the issue with senior management to get things going.* (Systems manager)

business and IT colleagues. RM expanded the network of people sharing relational links, leading to speedy information gathering and sharing and improved and efficient collaboration. Yet, people's expectancy of the value from participating in knowledge-sharing networks, or their intent to do so directly, remained low. Also, improved knowledge and information was not associated with improved quality of work-coordination and decision-making or with improved creativity and innovation in FinCo.

Social and operational outcomes

Changes introduced by RM were considered important for achieving their goals by 11 participants. Perceived changes were described in terms of operational outcomes (see Table 4) and/or or social outcomes (see Table 5). In terms of operational outcomes, RM was seen to increase creativity and innovation primarily through aligning business and IT strategy and facilitating the involvement of all IT areas in project planning. Follow-up interviews revealed that business-IT alignment and increased involvement of IT areas was enabled by intermediation through increased efficiency of vertical and lateral communication (see quotes 13, 14, 16, and 17 – in Table 6 – for examples). RM was also seen to facilitate work-coordination by representing IT knowledge during discussions about project planning and facilitating conflict or issue resolution.

In terms of social outcomes, RM was seen to facilitate access between business and IT people, as well as between operational and senior management levels within business and IT functions. Moreover, RM was seen as the 'key' to increasing the capability for collaboration, not only between business and IT functions, but across business units, either by educating business and IT colleagues, or by facilitating the communication between different stakeholders. Moreover, RM increased the expectancy of value from collaboration between business and IT colleagues, by raising confidence that views were considered and issues tackled. Expressions about changes in the motivation of interviewees were minimal.

Implications for theory

Through a formative evaluation of an RM intervention, this paper has sought to gain insight into the use of social capital as a potentially appropriate framework for evaluating change management interventions that aim to improve collaboration between business and IT during ISD and beyond. We sought to understand how participants perceived the contribution of RM to improving the relationship between business and IT, as well as its impact on social and operational outcomes. To this end, findings will be discussed in the light of the following two questions: (a) what did we learn from the use of social capital constructs about the effects of RM on the quality of the relationship between business and IT, and the served social and operational outcomes, and (b) what can we extrapolate from this study about the potential of social capital as an approach for IS-related change management evaluation.

Using social capital constructs not only enabled us to identify but also to 'locate' increases of social capital that affect the quality of the relationship between business and IT, as well as, social and operational outcomes. Social capital provided a flexible yet consistent framework for deriving contextualised success criteria and enabled us to trace the allocation of responsibility for changes. By building and maintaining important internal relationships with managers across departments, RM primarily

Table 5 Operational outcomes reported by interviewees

Operational outcomes	*Quotations*	*Interviewee role*
Creativity and Innovation in IT development	1. *[Relationship managers] added significant value to the planning and scheduling process*	Project/Programme Managers
	2. *[Relationship managers contributed to] aligning business and IT strategy*	Project/Programme Managers
	3. *[Relationship managers contributed to] facilitating the involvement of all IT areas impact by any given project*	Project/Programme Managers
Work Coordination in IT development	4. *[Relationship managers provided] assistance in resolving resource blockages*	Project/Programme Managers
	5. *[Relationship managers] brought knowledge and experience and acted as link to the solution delivery managers*	Project/Programme Managers
	6. *[Relationship managers] empowered operational managers to improve own performance*	Operations Managers
	7. *[Relationship managers facilitated the] prioritisation process from an IT perspective*	Systems Developers
	8. *[Relationship managers facilitated the] Immediate escalation route for dependencies that can not be resolved*	Project/Programme Managers
	9. *[Relationship managers facilitated project] management with Programme management teams regularly*	Project/Programme Managers
	10. *[Relationship managers help with] managing incidents*	Operations Managers
	11. *[Relationship managers facilitated the] robust estimation process*	Project/Programme Managers
	12. *[Relationship managers provided] systematic resolution of problems*	Operations Managers

enabled the development of relational, cognitive and structural capital in the network of relationships between the relationship managers and members of the business and IT division. Through its intervention, RM not only assisted information-sharing across departments, but facilitated the sharing of perspectives between business and IT, thereby increasing the cognitive dimension of social capital. This enabled and maintained a mediated form of dialogue between business and IS colleagues, which resulted in positive operational and social outcomes in a short period of time; a result which is in line with previous relevant theory (Henderson *et al.*, 1995; Iacono *et al.*, 1995; Subramani *et al.*, 1995). Potentially, the acquired common-ground of understanding could form the basis for further developments in other social capital dimensions, which at the point of this evaluation seemed to suffer due to its intermediation. For example, strong bonds with relationship managers led business and IT staff to a state of inertia and complacency towards activating direct bonds with each other. We argue that this may damage the prospects of business and IT colleagues to identify with each other and their capability to discover and share perspectives. As a result, the long-term success of RM in improving the relationship between business and IT is jeopardised. In addition, we suggest that 'quick wins' in operational terms (i.e., efficiency of work-coordination) and social terms (i.e., satisfaction from collaboration) are fragile, and dependent upon the capability of RM to continue to 'bridge' the gap between business and IT. It thus seems that there was a 'trade-off' between increases of social capital with RM and increases of social capital between business and IT. This finding supports arguments of theorists that argue the exclusionary nature of social capital increases (Gargiulo & Benassi, 1999).

This finding also raises a theoretical and an epistemological concern. From a theoretical viewpoint, we need to change our conceptualisation of interventions from a means of *increasing* social capital to a means of *relocating* social capital, as well. It thus urges us to shift our conceptualisation of evaluating interventions from measuring degrees or levels of change of social capital to identifying shifts of loci, and the effects of this relocation on *status quo*. Consequently, epistemological frameworks should reflect these theoretical changes. This finding is discussed in some detail in the following section; where the paper is concerned with implications for research.

The lessons that we can extrapolate from this study about the potential use of social capital as an approach for evaluating other IS-related change management can be summarised as follows. RM falls between two contradicting change management perspectives, which makes its evaluation difficult. Unlike other traditional organisation development interventions, such as the Lewinian model of force-field analysis, RM is unplanned and unfocused, lacking clear direction and remit, making its evaluation to achieve its goals elusive. In relation to bottom-up interventions, RM is lacking in participatory and facilitation qualities that enable the participants to 'grow' and take responsibility for the planning and implementation of mutually-agreed changes (Grieves, 2000; Hosking, 2002). In its limitation however, RM is likely to be a typical example of practitioner-derived change management interventions that do not follow pure theoretical camps and tend to 'juggle' the tension between the need to control an initiative's direction and/or rate of progress and

Table 6 Social outcomes reported by interviewees

Social outcome	*Quotations*	*Interviewee role*
Access to business and IT people for combining knowledge and collaboration	13. *[Relationship managers provided] accessibility to business and IT senior management*	Channel Managers
	14. *[Relationship managers] acted as facilitators*	Systems Developers
	15. *[Relationship managers] acted as reviewers*	Systems Developers
	16. *[Relationship managers] acted as gateways*	Systems Developers
	17. *[Relationship managers] provided a single point of contact*	Channel Managers
Combination capability	18. *[Relationship managers provided] direct contact*	Channel Managers
	19. *[Relationship managers helped with] explaining [the] context of issues*	Systems Developers
	20. *[Relationship managers provided] greater understanding across business areas*	Project/Programme Managers
	21. *[Relationship managers] helped in understanding business focus*	Systems Developers
	22. *[Relationship managers] helped our understanding of IT issues*	Project/Programme Managers
	23. *[Relationship managers] helped project managers to resolve issues across programme/business divisions*	Project/Programme Managers
	24. *[Relationship managers] provided a focal point for moving things forward*	Operations Managers
	25. *[Relationship managers helped with] providing constructive business feedback*	Channel Managers
	26. *[Relationship managers increased the] quality of communication*	Project/Programme Managers
Expectancy of value of combining knowledge and collaboration	27. *[Relationship managers brought] transparency of effort*	Project/Programme Managers
	28. *[Relationship managers raised my] confidence I am being heard*	Channel Managers
	29. *[Relationship managers raised] confidence that action is being taken.*	Channel Managers
	30. *[Relationship managers] raised confidence in personnel involved*	Systems Developers
Motivation to share knowledge and collaborate	31. *Recent experience [with relationship managers] has been excellent*	Project/Programme Managers
	32. *[Relationship managers facilitated] open and honest debates*	Systems Developers

the need to involve different stakeholders. Thus, social capital may be an acceptable 'middle-ground' solution for evaluating such interventions, because it provides a conceptually coherent framework that is (a) flexible enough to enable the integration of different stakeholder views on evaluation across time; but (b) tight enough to maintain its internal coherence to enable the tracking of both the rate and the locus of this change.

Implications for research

This research sets some ground rules for the development of a social capital approach to the evaluation of change management intervention aiming to improve creativity, innovation and work-coordination between business and IS colleagues throughout the gamut of joint work processes. Insights gained from this research suggest the need for refining the operational framework (see Figure 1) along three lines.

First, the framework could not distinguish the impact of the intervention on creating new social capital from its impact on relocating existing social capital. Further research should explore the following relevant issues: (a) the extent, if any, to which change management interventions increase or relocate social capital, or both; and (b) the positive and negative effects on stakeholders of creating social capital between stakeholders and change managers. Second, the framework could not represent the organisation's reliance on the intervention: As a result, it did not distinguish between social capital residing in relationships of RM and social capital residing in relationships between business and IT. Third, the framework should be refined to better capture the interrelationships between aspects of social capital dimensions, social impacts and organisational outcomes. For example the framework used in this paper could not distinguish the impact of different aspects of social capital on different social outcomes.

A refinement of the framework used in this study, based on empirical evidence from this case, is shown in Figure 2. In brief, the refined framework suggests that some aspects of social capital dimensions are directly related to social outcomes, as described in previous literature (see e.g.,

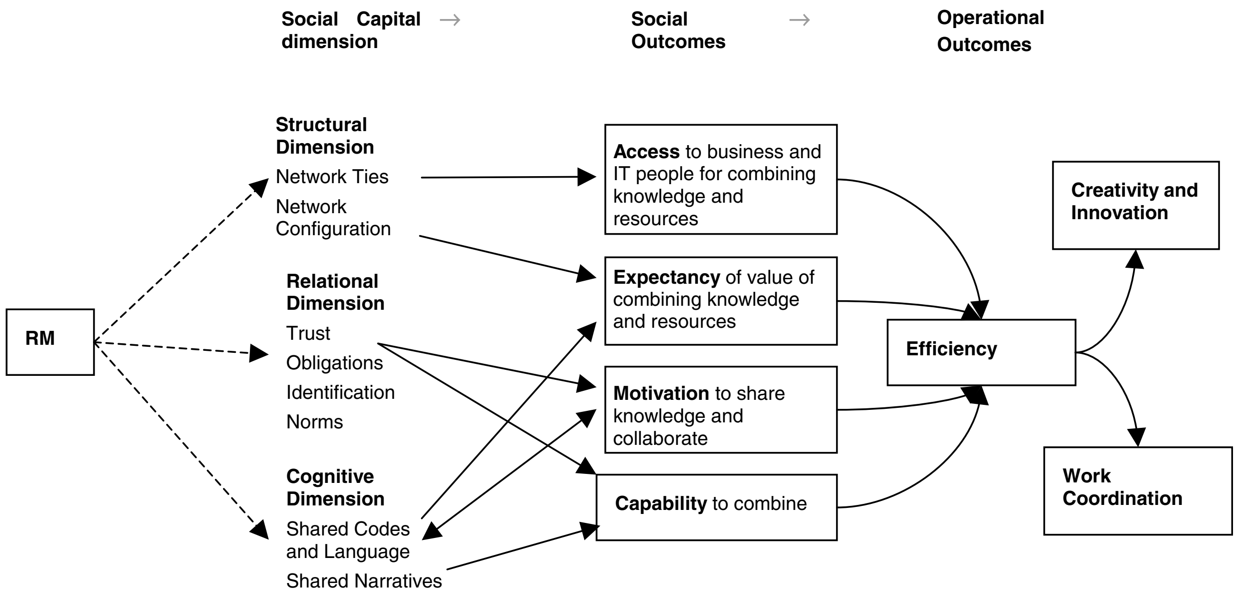

Figure 2 Revised evaluative framework, showing the relationships between aspects of social capital dimensions and social outcomes and the mediation of the relationship between social and operational outcomes.

Nahapiet & Ghoshal, 1998; Cohen & Prusak, 2001). For example, increased network ties are directly associated with access to knowledge and resources, whereas changes in the network configuration (or patterns of collaboration) are responsible for increases of expectancy of value from collaboration. An interesting finding, however, was that motivation to share knowledge is not only an outcome of sharing codes and language but could also be an antecedent. To illustrate, the motivation to communicate, and therefore share knowledge, was impacted by the level of trust and identification between business and IT colleagues, as was seen from our discussion of the relational dimension. Through intermediation, RM covered the basic informational needs of each party. This element increased each party's complacency and decreased the participants' motivation to communicate directly with each other. In turn, it deprived them of the opportunity to interact in order to develop shared codes and language in the process: This urges us to be mindful of the cause–effect relationship between social capital dimensions and social outcomes, and suggests the need for further research into the causal relationships between social capital dimensions, aspects and outcomes. Finally, our study suggests that efficiency in work processes, and in particular communication, might mediate perceptions of creativity and work-coordination, which was not initially defined as a concept associated with creativity and innovation. Although this may be a context-specific finding associated with the preoccupation of FinCo's culture with efficiency, it is worth bearing it in mind when researching similar contexts.

Insightful as it may have been, the present research is limited, as it relies on a single case study and on a single type of intervention. The study needs to be replicated using multiple case-study designs that allow the refinement of frameworks and comparative analysis to increase theoretical confidence and generalisability. To illustrate, the appropriateness of the social capital view needs to be explored further through research that assesses the impact of change management initiatives, other than RM, at different or multiple stages of their lifecycle and/or combines both objective and subjective measurements. For example, the present research relied upon participants' opinions with regards to RM intervention. Further research could be complemented with more objectified, possibly quantitative, measures of creativity and innovation, work coordination measurements or productivity measurements to allow triangulation through multiple data sources. This research could help to establish whether the reported operational benefits from RM are objective or biased impressions. In addition, to allow a closer interdisciplinary link between social capital theory and IT evaluation, it would be beneficial to combine the social capital view with acceptable IT evaluation tools for measuring IT success, such as the balanced scorecard.

Implications for practice

We suggest that if RM is to succeed in 'closing', rather than 'bridging' the gap between business and IT, it is necessary to focus on process and social facilitation between business and IT colleagues rather than interim management of inter-functional concerns. To improve the impact of RM on organisations and enable the development of change management best practices, the following four suggestions are proposed.

First, senior management should audit the network of relationships between business and IT functions to establish and prioritise the relationships that would be beneficial to cultivate in order to add business value to the organisation. This proposal would provide a perspective and direction for RM interventions. Second, senior management should understand the fundamental differences between intervention approaches, in terms of focus, degree of participation and flexibility of goal, and commit to an approach. Third, although tempting, senior management should not reward relationship managers for 'getting the job done', as gaining 'quick wins' in operational terms may detract from building strong relationships between business and IT colleagues, and therefore, dealing with issues that bring or underlie aggravation or distancing between departments. Finally, relationship managers should develop not only their own cross-functional knowledge but their capabilities to facilitate others' learning and communicating in cross-functional teams. Hence, training in team building, meeting facilitation and action research may be fundamental skills for RM practitioners if they are to effect change in others' attitudes that can translate to sustainable changes in work-coordination practices.

Conclusions

This paper has presented a social capital approach to RM evaluation and has applied such a view in order to gain insight about the potential of this approach for evaluating the impact of change programmes on organisations. It proposed that the RM intervention would have a positive impact on the levels of trust, reciprocity, mutual understanding and shared language as well as on the extent and interdependence of work relationships between business and IT. It developed and presented an evaluation framework and tested it in the context of a large financial institution. Empirical evidence was mixed. Findings indicate increased social capital in the relationships between relationship managers and both business and IT staff. With the exception of higher-levels of mutual understanding, findings did not indicate increases of social capital in the relationship between business and IT. We propose that a shift in intervention mode from management to facilitation is necessary for diffusing social capital in the relationship between business and IT. At a conceptual level, the fit of the social capital approach to design, explain and evaluate change management interventions is satisfactory, although substantial work needs to be undertaken to adapt the constructs for researching interventions of the relationship between business and IT. Four suggestions to this end were offered. Practitioners can benefit from using the social capital view to develop a schema for evaluating and monitoring the progress of organisational change programmes throughout their lifecycle. This study provides an example for the initial steps in this process.

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