SWP 5/99 BRIDGING THE GAP BETWEEN THE IT ORGANISATION AND THE REST OF THE BUSINESS: PLOTTING A ROUTE

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ABSTRACT

Much of the research advocates a strong IT-business relationship if the IT organisation is to make a value-added contribution to the business. While the research also highlights that in many organisations this relationship is poor, little guidance is provided as to how this 'gap' might be bridged. The research reported in this paper is a longitudinal study of three organisations that are actively seeking to bridge the gap, improve the relationship and consequently the value that they are deriving from their IT investments. A normative model constructed from cross-case analysis of the data is presented and described. The paper ends with some conclusions and further research suggestions.

1. INTRODUCTION

It has long been recognised and acknowledged that in the majority of organisations there is a 'gap' between the IT organisation and the rest of the business.[1] This gap has been described as a cultural gap (Grindley, 1991; Schein, 1992) and research has illustrated that culture can be used as an explanatory variable in understanding the basis of the "troubled marriage" between the IT organisation and the rest of the business (Ward and Peppard, 1996). Manifesting itself as a poor relationship between both sides, it can result in severe competitive implications for an organisation, particularly those competing in information intense industries or those heavily dependent on their IT based systems. However, little guidance has been provided as to how to bridge this gap. Grindley (1991), for example, has even suggested that it has a generation dimension that will bridge itself over time.

It is indeed unfortunate that organisations have created a separate function with a dedicated set of individuals, the IS specialists, to manage the information and communication technologies. Because information technology (IT) and information technology (IS) are treated synonymously, these individuals are also generally given responsibility for information and systems management. Although IT provides a powerful vehicle for processing information, this has merely moved the focus away from the real issue of managing and exploiting information to the delivery of technology. IS provides the context for IT (Checkland and Holwell, 1998). The reality is that IT has no inherent value in itself; just having technology or placing technology on peoples' desks does not confer any benefits on an organisations. These benefits must be unlocked and only business management can do that.

[1] In the context of this paper, the 'IT organisation' refers to that body of individuals providing IT resources and services to the business. Included are IT departments, DP departments, MIS departments, IS organisation or any other grouping providing such services, which exists inside the organisation.

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Through their research, many scholars and researchers have either directly or indirectly addressed different aspects of the 'gap'. An examination of the prescriptions from the literature clearly portrays the problem of a poor relationship as one which originates from within the IT organisation and the focus of attention is directed there (Peppard and Lambert, 1998). For example, reskilling the IS specialist with 'business' and 'inter-personal' skills (Cross *et al.*, 1997; Lee *et al.*, 1995), the more recent call for 'change agentry' as a skill for the IS specialist (Markus and Benjamin, 1996) or competencies for the IT organisation (Feeny and Willcocks, 1997). Further, many of the initiatives that have been proposed over the last 20 years merely address the symptoms of the gap rather than causes or only contend with a limited number of the elements required to deliver value from IT (Peppard and Ward, 1998). For example, the 'hybrid manager' (Palmer and Ottley, 1990) initiative was an attempt to develop an individual with broad business knowledge and technical IT skills. The reality is that, in isolation, such individuals can achieve little, particularly where there is a lack of strategic and senior management leadership of IT, inadequate structures and processes, poor service quality and a dominant value and belief system among management which does not view IT as being strategic (Peppard and Ward, 1998).

With the inability of business management to deal with the troubled relationship and the inevitable disappointment with the perceived value for IT expenditure, many organisations choose to rid themselves of the 'problem', or part of the problem, by outsourcing IT to outside vendors and suppliers. Indeed, it has been argued that the IT organisation is often 'culturally outsourced' long before a decision is made to contract out the provision of IS/IT services to a third party (Ward and Peppard, 1996). This is not to suggest that outsourcing is inappropriate, but only reinforces that it should be driven by a coherent sourcing strategy (Lacity *et al.*, 1996) rather than seen as eliminating a problem which is ill-defined and misunderstood.

The importance of a strong IT-business relationship cannot be underestimated. The emerging Resourced-Based View (RBV) of the firm from the strategic management discipline provides insights into the creation of value through IT (Collis and Montgomery, 1995; Wernerfeldt). This theoretical perspective suggests that, in the search for IT-based sources of sustainable competitive advantage, organisations must focus less on technology, *per se*, but more on the process of organising and managing IT within the firm (Dvorak *et al.*, 1997; Kettinger *et al.*, 1994; Mata *et al.*, 1995; Powell and Dent-Micaleff, 1997). Of course, the assumption is that the organisation does already have a highly competent IT staff and strong technological base although these may be outsourced to third parties and not necessarily provided in house (Ross *et al.*, 1996).

This paper presents some findings from an ongoing research programme which is exploring the relationship between the IT organisation and the rest of the business. This research has examined the relationship from a cultural perspective (Ward and Peppard, 1996) and sought to identify the elements which must be managed in order to increase the value-added contribution of IT (Peppard and Ward, 1998) and the organisational competencies necessary to deliver value from IS/IT (Peppard and Lambert, 1998). The research reported in this paper addresses the question of *how* organisations can plot a route to bridge this gap in order to improve the relationship, with an understanding that the focus is on improving the value-added contribution of IT. It presents a process model derived from longitudinal case studies being conducted in a number of organisations.

This paper begins by examining some previous research that is relevant to the research question. The results of a previous project within the research programme that highlight the elements of a successful relationship are described. The research methodology is then outlined. A process model derived from the data that aids in plotting a route to bridge the gap is then presented and described. The paper concludes with some observations and further research directions.

2. PREVIOUS RESEARCH

Despite research that highlights the importance of a strong IT/business relationship, research explicitly addressing how organisations can 'plot a route' and manage the migration is lacking. There is, however, some research which touches on some of the issues which are of relevance to the research question and these are reviewed here.

The 'stages of growth model', first articulated by Nolan (1973) and later extended by Gibson and Nolan (1974) and Nolan (1979), is probably the first to attempt to relate the transition of IT management processes to the maturity of IT. This model suggested a pattern of practices for the management of

'computing', depending on positioning relative to an S-shaped expenditure curve. Zmud (1984) considered the changing type of activity performed by IS staff, arguing that during the 1980s it changed from a 'manufacturing' based activity set to a 'distributed' set. He proposed a different type of IT organisation structure to reflect the need to deliver services rather than develop and deliver products. Others, including LaBelle and Noyce (1987) and Keen (1988) discuss both the merits of different organisational structures and the changing nature of the skills required by IS specialists. However, little is said about the inter-relationship between IT and the business. Hirschheim *et al.* (1988) are more specific and begin to address the relationship issues, albeit by describing the need for IT departments to respond effectively to changing demands from the 'business'.

Another more detailed assessment of the evolving relationship is described by Galliers and Sutherland (1991) who synthesised Earl's (1989) planning model with Nolan's (1979) six stage model and the McKinsey '7S' model for analysing the interacting management attributes. Their conclusions, tested in a number of organisations, are essentially that: each of the attributes needs to change as the organisation becomes more dependent on its IT systems and more mature in its planning of them; if any of the attributes is unsatisfactorily addressed in an early stage of the evolution, then the organisation will be less able (even unable) to achieve success in later, more demanding, stages; positive attributes developed in the early stages should not be discarded later since the organisation will have a legacy of products from the earlier stages to support; and for an organisation to succeed, without a major hiatus of disruption of IT supply, it should address all the 7S elements coherently at each stage before moving forward.

More recently, Cross *et al.* (1997) have described the transformation of the IT organisation at British Petroleum (BP). Building on this work, Earl and Sampler (1998) have used the distinction between 'supply', namely the provision of IT operations, systems development and user support and the 'demand' side, namely the identification and prioritisation of applications and of opportunities to exploit emerging technologies in order to define a prescriptive model. They argue that both supply and demand have to be managed, a process which they refer to as 'market management' and propose a four stage model which helps companies balance supply and demand in managing IT.

With the exception of Earl and Sampler (1998), the research to date has produced 'stage models' which are static and do not capture the process of change nor do they provide prescriptive guidelines for organisations. This research reported in this paper develops a process model that provides a normative framework for organisations attempting to bridge the gap.

3. ELEMENTS OF A SUCCESSFUL RELATIONSHIP

Much of the existing research explores in isolation the elements which contribute to a successful relationship between the IT organisation and the business, and ultimately high performance from IT investments. Earl and Feeny (1994) for example, explore the CIO-CEO relationship; Pitt *et al.* (1995) have examined IS/IT service management; Hodgkinson (1996) addresses the structure of the IT organisation. These elements, while necessary, are individually insufficient and point to the lack of a coherent framework which brings together the diverse research base. Building on such research studies, inductive and deductive quantitative and qualitative research was undertaken by the author and a framework developed to capture the elements to be managed in building a stronger relationship between the IT organisation and the rest of the business (Peppard and Ward, 1998). Illustrated in figure 1, this framework has five interdependent dimensions: leadership, structure and processes, service quality, roles and values and beliefs. These five dimensions are interdependent and cannot be looked upon in isolation (each is necessary but not sufficient). For example, inadequate structures and processes can impinge on the effective delivery of IT services even if there are congruent values and beliefs between the IT organisation and the rest of the business. These elements are briefly described below.

3.1 Leadership

In the IS literature, there are two main streams of research regarding leadership. The first are studies which examine the characteristics and role of the IT director or Chief Information Officer (CIO) (Applegate and Elam, 1992; Earl and Feeny, 1994; Grindley, 1991; Stephens *et al.* 1992). Earl and

Feeny (1994) conclude that the IT director's ability to add value is the biggest single factor in determining whether the organisation views IT as an asset or a liability.

Successful IT directors are seen to contribute beyond their functional responsibility (Feeny *et al.*, 1992) and, with the increasing range of IT supply options now available, Venkatraman and Loh (1994) contend that the role of the IT director has shifted from managing a technical portfolio to managing a relationship portfolio. This ability of the IT director to build relationships with business managers, vendors and suppliers is seen as a crucial attribute (Mata *et al.*, 1995; Ross *et al.*, 1996; Venkatraman, 1997).

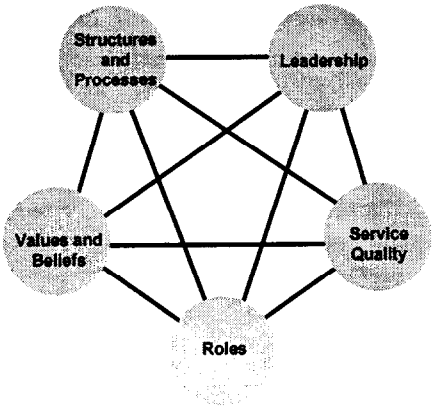

Figure 1 Dimensions of a successful relationship (from Peppard and Ward, 1998).

A second area of research relates to the role of the CEO in relation to the management and leadership of IT. Of particular interest is the relationship between the CEO and IT director, specifically whether or not the CEO is supportive of the IT director and IT initiatives (Feeny *et al.*, 1992). Research has indicated that the CEO-CIO relationship was one the distinguishing elements between 'successful' IT organisations and 'less successful' ones (Feeny *et al.*, 1992; Peppard and Ward, 1998).

Korac Kakabadse (1997; Korac Kakabadse and Kouzmin, 1996) has looked extensively at the performance of top teams and two dimensions she has identified that are of relevance to the leadership debate are: the extent to which IT directors feel part of the top management team, and the overall coherence among the top team (Korac Kakabadse, 1996). In many organisations the IT director is not part of the 'inner sanctum', very often reporting to the finance department. The extent of the involvement of the IT director in the business strategy formulation process can give a good indication of where IT is positioned in the organisation (Enns and Huff, 1997).

3.2 Structures and processes

Structures and processes are the mechanisms through which activities in an organisation take place and consequently to facilitate IT/business integration, appropriate structures and processes are necessary (Venkatraman, 1997). Inadequate or inappropriate structures and processes can severely impinge on the success of IT in an organisation (Blanton *et al.*, 1992). Traditionally structures in relation to IT have been devised around the concept of technology delivery with a reactive IT organisation developing products (i.e. applications) in response to business requests or at worst to what it suspects the business requires.

While the pendulum has swung over the years between centralised and decentralised structures, a number of scholars have taken the middle-ground proposing hybrid structures (George and King, 1991; Hodgkinson, 1996; Von Simson, 1990). Brown and Magill (1994) have gone some way in developing a model of antecedents in alignment of the IS function with the enterprise.

In addition to structural issues, there are also processual mechanisms, such as the involvement of business management in IS/IT strategy formulation (Ward and Griffiths, 1996; Earl, 1989; Dutta, 1996; Rockart and associates, 1995), that can impact the overall ownership of that strategy (Bowman and Kakabadse, 1997); alignment of the IS/IT strategy with business objectives (Venkatraman, 1991;

Henderson and Venkatraman, 1993; Ward and Griffiths, 1996); and responsibility for delivering business benefits (Farbey *et al.*, 1993; Ward *et al.*, 1996).

3.3 Service quality

Recently there has been some interest in applying concepts and practices from the management of service quality to IS/IT management (Pitt *et al.*, 1995; van Dyke *et al.*, 1997; Whyte *et al.*, 1997). This is to be expected in that much of what is now provided by the IT organisation can be characterised as a customer-supplier exchange, particularly with the advent of IT outsourcing. What this indicates is that the traditional role of the IT organisation as the developer and maintainer of IT systems has been usurped by a variety of factors and its function now includes a significant service component. IS research has tended to focus on products rather than service and only recently has this service aspect been addressed.

What can be particularly difficult for IS specialists to appreciate is that service quality is customer (or user) defined and is assessed based on their perceptions (Clutterbuck *et al.*, 1993; Zeithamal *et al*, 1990). It is founded on a comparison between what the customer feels should be offered and what is actually provided (Parsuraman *et al.*, 1988). To this end, the customer is the ultimate arbiter of quality. Our research has indicated that in IT organisations that are considered low performing, business management rank the elements of service quality significantly lower than those providing the service do (Peppard and Ward, 1998).

3.4 Roles

Previous research illustrated clearly that in situations where IT was under-performing there was little congruence between IT management and business management as to the role and function of the IT organisation (Peppard and Ward, 1998). Both groups had different expectations as to what those roles were. This problem with roles was also reflected in the measures used to assess and judge performance. The evidence clearly pointed to the fact that in low performing IT organisations, these roles were not adequately defined and shared and the subsequent performance indicators, which may not even have been explicit, were different.

3.5 Values and beliefs

The final dimension to the framework is concerned with the values and beliefs of organisational actors. Values and beliefs can significantly shape attitudes and hence behaviour and practices. These beliefs are shaped throughout one's career based on the experiences which one has with IT. Previous experience both with IT and within the industry of the organisation is likely to also have a major influence.

The values and beliefs of incumbents are a powerful force and should not be underestimated. For example, if business managers do not believe that IT is strategic, this will reflect in how they manage and deal with IT and IT issues (Venkatraman, 1997). As well as the baggage that employees bring with them from previous experience, their behaviour can also be shaped by myths, stories, rituals and routines which exist within the organisation (Johnson, 1992).

4. RESEARCH METHODOLOGY

As already mentioned, this paper reports on a research project that is part of a larger programme exploring the relationship between the IT organisation and the rest of the business. The central focus of these studies is on understanding how organisations can better leverage IT for value creation. To study the process of change as organisations seek to implement initiatives to increase the value added contribution of IT data is being collected from three sites using a longitudinal research design.

4.1 Data collection

As part of the data collection process, interviews are being conducted with key informants from both the business and IT organisation, right across the spectrum of levels from chairman to chief executive to middle management and front-line staff. Interviews are open-ended although there is some structure in the data collection protocol to ensure the elements identified above are addressed. The interviews are recorded and subsequently transcribed. Notes in relation to interviews are also taken and documents, internal surveys and presentations examined, and copies retained.

4.2 Research sites

This research is based on a longitudinal study in three organisations. These sites were chosen for theoretical not statistical reasons (Glaser and Strauss, 1967). The selection of the sites is based upon three criteria: purposeful sampling, availability of multiple sources of information and, probably the more important, a willingness to co-operate. Two of the organisations had implemented formal programmes to improve the relationship between the IT organisation and the business, and ultimately the contribution that IT was making to the business. The third was managing the consequences of a merger, but previous research by the author had highlighted that the business was more satisfied with the performance of IT than the IT organisation was of its own performance (Peppard and Ward, 1998).

Organisation 1 is a global re-insurance brokerage (to be known as Re-insCo). The company recently merged with a competitor and the focus of the research study is to track the merger of both companies in the context of IS/IT management, given that insurance is a highly information intense business with the company heavily dependent on its IT system. This study is providing insights into what it is that requires managing and how the process was managed.

Organisation 2 is a public sector organisation (to be known as PS Dept) operating in an information intense service area. IT is central to its activities but a recent organisation and performance review by external management consultants was highly critical of IT management in the organisation. A new IT governance structure is currently being implemented as an attempt to bridge the gap between the business and IT organisation. The study is tracking the implementation of this new structure as well as other recommendations made by the consultants.

Organisation 3 is a large financial institution which is seeking to create a 'world class' IT organisation by the year 2000 (to be known as XY Bank). This organisation has developed a transformation plan based around the European Quality Foundation's Business Excellence Model and assessment of progress is based around the criteria of this model.

Each of the three organisations is at a different stage in terms of the relationship between the IT organisation and the business and in the context of the transformation process. The IS department at Re-insCo was deeply embedded in organisational activities. At XY Bank a new IT director had been hired to radically improve the contribution of the IT organisation. Each also had different drivers of the change process. For the public sector organisation the change was been driven by an external consultancy report but the change had the full support of the CEO. The drive for XY Bank to become world class was a crusade by the top IT management team to ensure their position as a result of any fallout resulting from any acquisition or merger activity. There is also the threat of outsourcing looming on the horizon. The re-insurance brokerage was managing the merger of two IT departments, one of which had an excellent relationship with the business and was recognised in the industry as being highly innovative, while the other was somewhat of a laggard with IT having a poor reputation.

4.3 Data analysis

In developing the model presented in this paper, the data went through a two stage process. First of all, within case analysis of the data from each study sites was undertaken. This was to capture the process of change as it unfolded in each organisation and to discern any patterns which existed in the data. The analysis of this data is ground in the interpretative tradition with the objective of the analysis being understanding rather than prediction (Burrell and Morgan, 1979; Orlikowski and Baroudi, 1991). This aspect of the research is not reported in this paper but will appear in a future publication.

Second, cross-case analysis of the data was undertaken and patterns identified and mapped. General themes and lessons both common and different across the three sites were also identified. These were then examined with a view to develop a normative model for guiding the transforming of the IT organisation, based on the experiences of the three case companies, which could be applied in any organisation. It should be highlighted that this data analysis process was not as clear as these sentences might indicate but emerged through much discussion and deliberation. To increase the validity of the model it was then presented to each of the three organisations. The resultant model may not reflect the actual process of change which each of the three organisations went through. Rather, it reflects the experience of each of the three organisations.

5. THE PROCESS MODEL

Figure 2 below illustrates the process model for transforming the value-added contribution of IS/IT which has been derived from cross-case analysis of the data. This model also highlights the antecedents to be addressed in creating a value-added partnership between the IT organisation and the business. The words 'value-added contribution of IS/IT' have been carefully chosen as the focus of the study *is not on creating the value-added IT organisation.* As is highlighted later in the paper, the initiative at XY Bank which sought to create a world-class IT organisation, while well intentioned, does require business participation if it is to be successful.

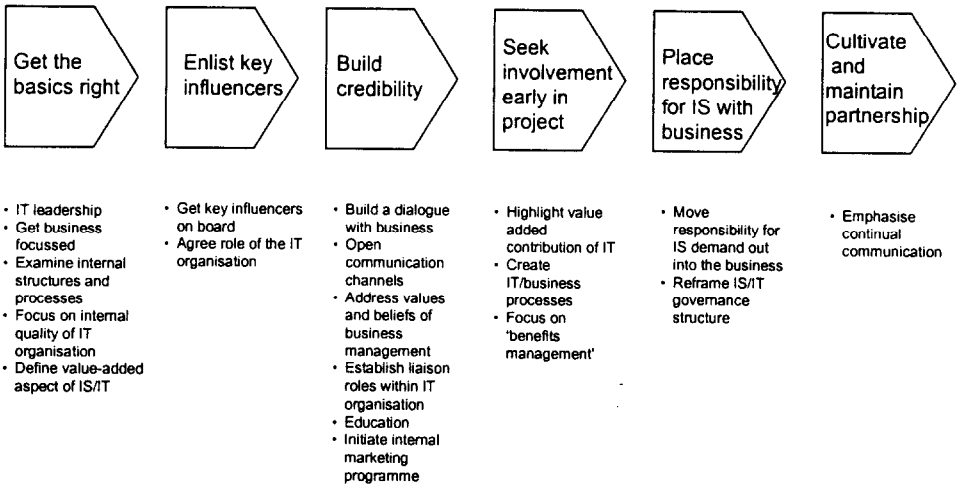

Figure 2 A process model for transforming the value-added contribution of IS/IT.

Stage 1: Get the basics right

"Get your house in order" is the clear message before attempting to seek any dialogue with the business. The evidence was clear that it is futile attempting to improve the relationship if the ability of the IT organisation to meet basic business expectations is either weak or non-existent. The initial requirement is therefore to address basic tactical day-to-day activities and is clearly technologically focused: network up-time, availability and reliability of applications, help-desk response times, etc.

There is also a requirement during this first stage for the IT organisation to get business focused. Addressing the simple question 'are we providing what the business requires' can be very revealing in that very often the IT organisation does not know what the business requires and 'second quesses' business decisions all the time, particularly if the relationship is so poor that dialogue is non existent.

An examination of internal structures and processes of the IT organisation is also suggested to assess their robustness and ability to deliver the basis services. The IT organisation also begins to focus on its internal quality. It is important that the IT organisation at this stage must not become defensive, even if it is clear that the 'problem' lies in the business. They, rightly or wrongly, 'are in the driving seat'. IS Staff must also believe the message that IT is becoming more business focused and "walk the talk", eliminating comments like "wouldn't it be great if we had no users!"

Central to the successful outcome of this stage is strong IT leadership and a recognition and acceptance among the senior IT management team that there is a problem. The IT management team must work together in order to plot a route towards building a strong relationship. Without strong IT leadership it is unlikely that any initiative will proceed beyond a recognition of its symptoms.

Stage 2: Enlist key influencers

Within any organisation there are those actors who are pivotal to what happens in the organisation, the opinion leaders or key influencers. If the transformation of the IT organisation is to progress, the evidence suggests that it is important to get these influencers on board early before proceeding to the later stages. Identifying and talking to the right people and winning them over is paramount. The visibility that these individuals bring is not only extremely beneficial but they can often decide the fate of a non-performing IT organisation. More importantly, once on board they are more likely to support you, particularly when harsh decisions have to be made by business management.

Indeed, this is why it is crucial to have strong IT leadership, particularly at IT director/CIO level, an individual with the personal credibility to seek out and dialogue with these key influencers. It must be borne in mind that the leader of the IT organisation is probably unlikely to be on the board and therefore may not be a direct peer of these influencers.

Enlisting these key influencers generally requires that there is some agreement reached as to the role and function of the IT organisation. This ensures, if nothing else, that both the business and IT management are 'singing off the same hymn sheet' and are aware of each others expectations, setting the parameters for subsequent dialogue and action. This can not only give clarity but also identify areas of potential conflict that may have implications at later stages. The evidence would suggest that at this stage it is often worthwhile to define some Service Level Agreements (SLAs) to prove that the IT organisation is sincere and wants to deliver: they define the penalty if you don't. In a later stage, some of these SLAs may be dropped as they can in fact impinge upon building the type of relationship where IS/IT is truly adding-value.

Stage 3: Build credibility

Credibility is not something which is taken but rather something which is given! In essence, it must be earned by the IT organisation and is derived from achievements and actual results. The evidence from XY Bank and the PS Department suggests this to be the most difficult stage to pass through. If credibility doesn't exist, the experience from these two sites indicates that even addressing elements of later stages will not result in a strong partnership.

The challenge is therefore to build this credibility and the evidence from these two cases suggests that the IT organisation may need to put in place a marketing plan. The focus of this marketing initiative should be to communicate and understand customer requirements and not selling. For example, one of the twin objectives of the "world class" initiative at XY Bank was to be considered as the preferred supplier to the business. It recognised that to be considered as a preferred supplier in the commercial world requires an implicit understanding of the expectations of the customer.

Therein lies a large part of the problem with the relationship. Firstly, there is often the existence of unrealistic expectations by business management and users concerning both the technology itself and what the IT organisation *should* do for them. Secondly, user and management roles are not clearly defined. This has its roots in the value and belief system of incumbents and initiatives are required to address this aspect. The difficulty in challenging a belief system that may have been moulded over a large number of years should not be underestimated. For example, at PS Department there is a very strong belief among many of the business management team that IT is the responsibility of the IT department. Changing such a position is extremely difficult but if it does not happen little progress will be made. Crucially, it does not happen overnight. The evidence at PS Department would suggest that it is likely that this stage and the following will often occur in tandem, particularly if beliefs are fairly entrenched. It may only be through active involvement in projects that business personnel can see their role.

Initiatives include the establishment of liaison roles which actively seek to cultivate the relationship. XY Bank established the roles of "relationship managers" to liase with business

management. Their experience strongly suggests that the personal characteristics of these individuals crucial. Further, they must also be responsible for any projects which emerge from their work with business management and not hand them over to a IT project manager.

Other aspects which can enhance the journey towards credibility include using a language which the business understands and is comfortable with. For example, while the XY Bank has adopted the Business Excellence Model of the European Foundation for Quality Management to drive its initiative perhaps more importantly it gets the message across to the business that it is serious and its plans and objectives are presented in a language which they understand. Getting ISO900 accreditation can also be a good signal to the business that you are serious (Re-InsCo received this a number of years ago). What it provides is external validation.

Stage 4: Seek involvement early in projects

Having credibility is not an end in itself. Without credibility, business managers are unlikely to risk being involved or will be cautious in IS/IT related matters. Therefore this credibility must be harnessed and built upon if the value added contribution of IS/IT is to be enhanced. The evidence suggest that this is a two-way process. On the one hand, it is important to request business involvement early in IT projects but equally, IS professionals must also seek early involvement in projects which have implications for IT. The latter can often be difficult, as business management may not recognise the contribution which IS specialists can make, particularly at the outset of projects or discussions. The duality of IT is that it is both an enable and creator of strategic opportunities. The value and beliefs changes achieved in the last stage should help both sides in recognising that each has a role to play.

The relationship management role at XY Bank has been very successful in getting business involvement in determining IS/IT requirements, but there was still a tendency for business management to see this as being the end of their involvement until the project is eventually delivered. To ensure continuous business management involvement, they have instigated a 'benefits management' initiative which requires their active involvement in the identification, structuring, planning and realisation of benefits. The focus moves away from delivering the technology to delivering business benefits. Indeed, the credo of the organisation is that they no longer have IT projects only business projects. Rotation of staff between the IT organisation and business in order to identify opportunities that technology provides can be a worthwhile strategy but equally business staff recognise the contribution which the IT organisation can make.

Stage 5: Place responsibility for IS with business

Responsibility for defining IS demand must ultimately rest with the business. This places a new challenge and an added dimension for business managers to manage, and it is one which they may be reluctant to accept unless previous stages have been successfully passed through. The benefits management approach highlighted in stage 4 should highlight that the management of IS/IT is a business issue and that it is only through business changes that benefits emerge.

The issue of IS/IT governance should be broached. This is concerned with defining the framework within which IS/IT decision making takes place. Policies and principles may need to be establishing which guide decision making. For example, what decisions should be made by the central IT function and what decisions are better devolved to business units? Even with devolved decisions, will certain parameters be set?

At the Re-InsCo, the policy is for all the IS staff to be recruited from either the business or from other insurance companies: having industry knowledge is crucial. Consequently, they can envisage the opportunities that technology provides to the business fully aware of the strategy of the company. Recently, the IT organisation developed a prototype extranet application for the business, something which would have been difficult to define based on purely IT knowledge. But whether or not this application would be further developed was a decision taken by the business management. Strong IT leadership coupled with a credible IT organisation ensured that this pilot was taken seriously but more importantly that the business had the faith in the IT organisation to deliver within short timescales.

Stage 6: Cultivate and maintain partnership

Like any good marriage, the relationship must be continuously worked on. Both technology and the business environment are continually changing requiring appropriate responses to be made. Above all, it should not be taken for granted. It is probably the IT organisation which has to take the lead, even if the IT budget is held by business management.

At the time of writing, only Re-InsCo had reached this stage. During a recent survey of business and IT management, business management rated the service provided by the IT organisation better than IT management rated themselves! Indeed, this same survey also asked business management for suggestions as to how the service could be improved and over 60% replied that as far as they were concerned it couldn't be! They were very satisfied with what they were currently receiving and with the contribution that the IT organisation was making.

Within the industry the company is recognised as the leader in the exploitation of technology for competitive advantage. The IT director is also Director of Operations and therefore is in control of 70% of the business. Indeed, this dual role is becoming more common; for example both Dun & Bradstreet and the Halifax have IT directors who are also responsible for sizeable aspects of the business. Both have board seats.

The evidence for Re-InsCo suggests that some of the SLAs defined at an earlier stage may need to be dismantled as they can impinge upon relationship building. At Re-InsCo there are few SLAs in existence. The culture in relation to IT management is one of 'we help you to help yourself'. There is also no formal contract between the company and the main provider of its broking package. Staff from the vendor attend internal Re-InsCo meetings; they are seen as part of the business

A percentage of the IT budget is set aside for 'high potential' application development and experimentation. IT staff are encouraged to develop prototypes and seek business assessment. There are regular technology briefings to staff from the business to help in identifying possible applications.

6. CONCLUSIONS

Much of the research advocates a strong IT-business relationship if the IT organisation is to make a value-added contribution to the business. While this research also highlights that in many organisations this relationship is poor, little guidance is provided as to how this 'gap' might be bridged. The research reported in this paper is a longitudinal study of three organisations that are actively seeking to bridge the gap, improve the relationship and consequently the value that they are getting from their investments. A model drawn from cross-case analysis of the data is presented and described.

There are many lessons that have been derived from the cases in relation to their experiences. The initiative at XY Bank illustrates the danger of just attempting to focus on creating a high performance IT organisation. In isolation, the IT organisation can do very little without getting significant commitment and buy-in from the business. The initiative floundered until this aspect was addressed.

The PS Department saw the problem as one of governance and set about implementing a new IT governance structure without addressing some of the more fundamental problems inherent in the organisation, like the lack of IT leadership or the internal structures and processes. After many months of achieving little, the organisation begun to address some of the more fundamental aspects. In essence, it attempted to short circuit the transformation process by skipping directly to stage 5 without addressing the aspects of earlier stages.

The question of where should the drive for the initiative come from is an interesting one: from the business management or IT management? At the PS Department, the initiative had the support of the CEO right from the beginning but lacked strong IT leadership. The IT director of XY Bank, on the other hand, had to win over the confidence and trust of senior business management and the CEO.

In examining the three study sites in the context of the model, is seemed that there were certain pre-requisites which must be addressed in moving from one stage to the next. Even if the other aspects highlighted above were addressed, these were mandatory. To cross over from stage 1 to stage 2 requires the existence of strong IT leadership. From stage 2 to 3, the development of a strong IT director-key influencers relationships is paramount; all the better if this includes a strong CEO/CIO relationship. From stage 3 to 4, an explicit internal market programme is necessary. From stages 4 to 5 requires an emphasis on changing the values and beliefs of business management. The extent of this transformation

is dependent on an assessment of the expectation of business management. From stages 5 to 6 requires business management to assume responsibility for IS/IT while also addressing issues of IT governance.

There has been a continual call for organisations to have an IS/IT strategy. This paper strongly suggests that organisations should also have a strategy for the IT organisation; one which emphasises how the value added contribution of IT is to be increased.

7. REFERENCES

APPLEGATE, L.M. and J.J. ELAM (1992). New information systems leaders: a changing role in a changing world. *MIS Quarterly*, **16**, pp. 469-490.

BASHEIN, B. and M.L. MARKUS (1997). A credibility equation for IT specialists. *Sloan Management Review*, Summer, pp. 35-44.

BLANTON, J.E., H.J. WATSON and J. MOODY, (1992). Towards a better understanding of information technology: a comparative case study. *MIS Quarterly*, December, pp. 531-555.

BOWMAN, C. and A. KAKABADSE (1997). Top management ownership of the strategy problem. *Long Range Planning*, **30 (2)**, pp. 197-208.

BOYNTON, A.C., G.C. JACOBS and R.W. ZMUD (1992). Whose responsibility is IT management? *Sloan Management Review*, Summer, pp. 32-38.

BROWN, C.V. and S.L. MAGILL (1994). Alignment of the IS functions with the enterprise: towards a model of antecedents. *MIS Quarterly*, December, pp. 371-403.

BURRELL, G. and G. MORGAN (1979) *Sociological Paradigms and Organizational Analysis*. London. Heinemann.

CLUTTERBUCK, D., G. CLARK and C. ARMISTEAD (1993) *Inspired Customer Service: Strategies for Service Quality*. Kogan Page, London.

COLLIS, D.J. and C.A. MONTGOMERY (1995) Competing on resources: strategy in the 1990s *Harvard Business Review*, July-August, pp. 118-128.

CROSS, J., M.J. EARL and J.L. SAMPLER (1997). Transforming the IT function at British Petroleum *MIS Quarterly*, **21(4)**, pp. 401-423.

DUTTA, S. (1996). Linking IT and business strategy: the role and responsibility of senior management. *European Management Journal*, **14(3)**, pp. 255-268.

DVORAK, R.E., E. HOLEN, D. MARK and W.F. MEEHAN (1997). Six principles of high-performance IT. *The McKinsey Quarterly*, No. 3, pp. 164-177.

EARL, M.J. (1989). *Management Strategies for Information Technology*. Prentice Hall International, Hemel Hempstead.

EARL, M.J. and J. SAMPLER (1998). Market Management to Transform the IT Organisation. *Sloan Management Review*, Summer, pp. 9-17.

EARL, M.J. and D.F. FEENY (1994). Is your CIO adding value? *Sloan Management Review*, Spring, pp. 11-20.

ENNS, H.G. and S.L. HUFF (1997). CIOs' influence on business strategy formulation and realization. Paper presented at the *2nd AIS conference*, Indianapolis, Indiana, August 15-17, 1997.

FARBEY, B., F. LAND and D. TARGETT (1993) *How to Assess Your IT Investment: A Study of Methods and Practice*. Butterworth Heinemann, London.

FEENY, D.F. and L.P. WILLCOCKS (1997). The IT function: changing capabilities and skills. In *Managing IT as a Strategic Resource* (WILLCOCKS, L., D.F. FEENY and G. ISLEI, Eds.), pp. 455-474, McGraw Hill.

FEENY, D.F., B.R. EDWARDS and K.M. SIMPSON (1992). Understanding the CEO/CIO Relationship. *MIS Quarterly*, December, pp. 435-448.

GALLIERS, R.D. and A.R. SUTHERLAND (1991). Information systems management and strategy formulation - the stages of growth model revisited. *Journal of Information Systems*, **1**, 1.

GEORGE J and J. KING (1991). Examining the computing and centralization debate. *Communications of the ACM*, **34(7)**, pp. 63-72.

GIBSON, C.F. and R.L. NOLAN (1974). Managing the four stages of EDP growth. *Harvard Business Review*, January-February, pp. 76-88.

GLASER, B.G. and A.L. STRAUSS (1967). *The Discovery of Grounded Theory*, Aldine, Chicago, Illinois.

GRINDLEY, K. (1991). *Managing IT at Board Level: The Hidden Agenda Exposed.* Pitman Publishing, London.

GROVER, V., M.J CHEON and J.T.C. TENG (1996). The effect of service quality and partnership on the outsourcing of information systems functions. *Journal of Management Information Systems*, **12**, 4, pp. 89-116.

HENDERSON, J.C. and N. VENKATRAMAN (1993). Strategic alignment: leveraging information technology for transforming organisations. *IBM Systems Journal*, **32**, pp. 4-16.

HIRSCHHEIM, R., M.J. EARL, D.F. FEENY and M. LOCKETT (1988). An exploration into management of the IS function: key issues and an evolving model. In *Proceedings of Joint International Symposium on Information Systems*, March.

HODGKINSON, S.L. (1996). The role of the corporate IT function in the federal IT organisation. In *Information Management: The Organisational Dimensional* (EARL, M.J. Ed.), pp. 247-269, Oxford University Press, New York.

JOHNSON, G. (1992). Managing strategic change - strategy, culture and action. *Long Range Planning*, **25(1)**, pp. 28-36.

KETTINGER, W., V. GROVER, S. GUHA and A.H. SEGARS (1994). 'Strategic information systems revisited: a study in sustainability and performance', *MIS Quarterly*, March, pp. 31-55.

KORAC KAKABADSE, N. (1997). *Leadership Philosophies and Organisational Adoption of a New Information Technology*. Unpublished PhD Dissertation, University of Western Sydney - Nepean, Australia.

KORAC KAKABADSE, N. and A. KOUZMIN (1996). Innovation strategies for the adoption of new information technology in government: an Australian experience. *Public Administration and Development*, **16(4)**, pp. 317-330.

LA BELLE, A. and H.E. NYCE (1987). Whither the IT organisation. *Sloan Management Review*, Summer.

LACITY, M.C., L.P. WILLCOCKS and D.F. FEENY (1996). The value of selective IT sourcing. *Sloan Management Review*, Spring, pp. 13-25.

LEE, D.M.S., E.M. TRAUTH and D. FARWELL (1995). Critical skills and knowledge requirements of IS professionals: a joint academic/industry investigation. *MIS Quarterly*, **19(3)**, pp. 313-340.

MARKUS, M.L. and R.I. BENJAMIN (1996). Change agentry - the next IS frontier. *MIS Quarterly*, **20**, pp. 385-407.

MATA, F.J., W.L. FUERST and J. BARNEY (1995). Information technology and sustained competitive advantage: a resource-based analysis. *MIS Quarterly*, December, pp. 487-505.

NOLAN, R.L. (1973). Managing the computer resource: a stag hypothesis. *Communications of the ACM*, **16**, 7, pp. 399-406.

NOLAN, R.L. (1979). Managing the crisis in data processing. *Harvard Business Review*, March-April, pp. 115-126.

ORLIKOWSKI, W.J. and J. BAROUDI (1991). Studying information technology in organisations: research approaches and assumptions. *Information Systems Research*, **2(1)**, pp. 1-28.

PARASURAMAN, A., V.A. ZEITHAML and L.L. BERRY (1988). SERVQUAL: a multiple item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, **64(1)**, pp. 12-40.

PALMER, C. and S. OTTLEY (1990). *From Potential to Reality: Hybrids - A Critical Force in the Application of Information Technology in the 1990s*. British Computer Society, London.

PEPPARD, J. and R. LAMBERT (1998). Whose Job Is It Anyway? Organisational IS/IT Competencies For Value Creation. Cranfield School of Management Working Paper Series, SWP 16/98, Cranfield, Bedford.

PEPPARD, J. and J. WARD (1998). 'Mind the Gap': Diagnosing the Relationship Between the IT Organisation and The Rest of The Business. Cranfield School of Management Working Paper Series, SWP 13/98, Cranfield, Bedford.

PITT, L.F., R.T. WATSON and C.B. KAVAN (1995). Service quality: a measure of information systems effectiveness. *MIS Quarterly*, June, pp. 173-185.

POWELL, T.C. and A. DENT-MICALLEF (1997). Information technology as competitive advantage: the role of human, business and technology resources. *Strategic Management Journal*, **18(5)**, pp. 375-405.

PRICE WATERHOUSE (1993). *Information Technology Review* 1993/94. Price Waterhouse, London.

ROCKART and ASSOCIATES (1995). The end of delegation? Information technology and the CEO. *Harvard Business Review,* September-October, pp. 161-172.

ROSS, J.W., C. MATHIS BEATH and D. GOODHUE (1996). Develop long-term competitiveness through IT assets. *Sloan Management Review*, Fall, pp. 31-42.

SCHEIN, E.H. (1992). Management and information technology: two cultures in collision? In *Organisation Culture and Leadership* (Schein, E.H. Ed.), Jossey-Bass, pp. 276-294.

STEPHENS, C.S., W.N. LEDBETTER, A. MITRA and F.N. FORD (1992). Executive of functional manager? The nature of the CIOs job. *MIS Quarterly*, December, pp. 449-467.

VANKATRAMAN, N. (1997). Beyond outsourcing: managing IT resources as a value centre. *Sloan Management Review*, Spring, pp. 51-64.

VENKATRAMAN, N. (1991). IT induced business reconfiguration. In *The Corporation of the 1990s: Information Technology and Organisational Transformation* (SCOTT MORTON, M.S., Ed.), pp. 122-158, Oxford University Press, New York.

VENKATRAMAN, N. AND L. LOH (1994) The shifting logic of the IS organisation: from technical portfolio to relationship. *Information Strategy: the Executive's Journal*, Winter, pp. 5-11.

VAN DYKE, T.P., L.A. KAPPELMAN AND V.R. PRYBUTOK (1997). Measuring information systems service quality: concerns on the use of SERVQUAL questionnaire. *MIS Quarterly*, June, pp. 195-208.

VON SIMSON, E.M. (1990). The centrally decentralised IS organisation. *Harvard Business Review*, July-August, pp. 158-162.

WARD, J. and P. GRIFFITHS (1996). *Strategic Planning for Information Systems*, Wiley, Hemel Hempstead.

WARD, J. and J. PEPPARD (1996). Reconciling the IT/business relationship: a troubled marriage in need of guidance. *Journal of Strategic Information Systems*, **5(1)**, pp. 37-65.

WARD, J., P. TAYLOR and P. BOND (1996). Evaluation and realisation of IS/IT benefits: an empirical study of current practice. *European Journal of Information Systems*, **4**, pp. 214-225.

WERNERFELT, B.(1984). 'A resource-based view of the firm. *Strategic Management Journal*, **5**, pp. 171-180.

WHYTE, G., A. BYTHEWAY and C. EDWARDS (1997). Understanding user perceptions of information systems success. *Journal of Strategic Information Systems*, **6**, pp. 35-68.

ZEITHAML, V., A. PARASURAMAN and L.L. BERRY (1990). *Delivering Quality Service: Balancing Customer Perceptions and Expectations*. Free Press, New York.

ZMUD, R.W. (1984). Design alternatives for organising systems activities. *MIS Quarterly*, June.

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