

# Seeing the big PICTURE: A framework for improving the communication of requirements within the Business-IT relationship

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## Abstract

The relationship between the business and IT departments in the context of the organisation has been characterised as highly divisive, with major problems revolving around the failure to adequately communicate and meet requirements. This study seeks to analyse the communication characteristics of the relationship between the retail business and IT within a high street bank with the aid of a four-dimensional framework. 29 individuals on mid-high management level were interviewed and the transcripts analysed for their thematic content. The paper concludes with a set of four principles based on the framework's analysis for the improvement of business and IT relations.

**Keywords: Communication; Requirements; Relationship management**

## 1. Introduction

In the current dynamic and increasingly demanding global economic climate, the worlds of Business and IT (BIT) face the constant challenge of keeping apace of the latest developments that would add a competitive advantage to their organisation. The challenges BIT face force a union between the two worlds, as IT undoubtedly now forms an integral part of any given organisation on which business decisions and strategies are enabled, often at hugely elevated investment costs [e.g., 28]. However, given the high levels of expenditure for IT, the benefits for business in these investments are relatively small in comparison [see 4]. The relationship between business and IT continually fails to act synergistically and this has been commonly depicted in the literature through the concept of 'alignment' [27, 75, 7, 35].

The notion of alignment in this body of work tends to represent "a one-way sequential integration" as opposed to other strands of research, which point to "a two-way reciprocal integration" [76: p. 310]. This idea was exemplified by Khandelwal [36] who found that in order for full alignment to be achieved, IT managers had to develop a business oriented perspective, while their business counterparts needed to gain an understanding of technology. However, the alignment paradigm has been questioned in recent times by Smaczny [66] who

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instead offers the concept of ‘fusion’ as a way of looking at the integration of the business and IT functions. This emphasises the need for developing and implementing strategies (both business and IT) simultaneously, whereas alignment has a suggestion of passivity in a mere ‘straightening up’ of organisational business affairs as one side of the business catches up with the other [see 61].

Alternative studies have dispensed with the notion of alignment altogether and taken a more sceptical view in looking to the real-life separation of BIT activities. This body of work points to a more fractured view of the BIT relationship as a clear divide that needs to be bridged. This has been reflected most strongly in recent times with a whole series of ‘gap’ type articles in the research literature [e.g., 85, 73, 53, 52] and computer and business press [e.g., 34, 55]. However, a common contributory factor to the problems that BIT face is poor communication, which has adversely affected the integration of business and IT strategy within an organisation [see 78]. In characterising the split between BIT as a communication gap, a primarily behavioural and socially oriented view is taken on the examination of this divide, as espoused by Reich and Benbasat [58], for example. Such a view permits a focus on values, communications and understanding — all of which are important for fostering a strong BIT relationship. The actual nature of this relationship within the context of communication within the organisation is discussed next.

## **2 Examining the Business-IT relationship: The importance of communication**

Human communication that occurs within the context of organisations is called organisational communication [see 8] and can be formally defined as “the flow of messages within a network of interdependent relationships” [23: p.11]. Given such dependencies, one important function of communication in this context is relational, which permits the creation and maintenance of business and personal relationships with other diverse members of the organisation [10]. These relations can be considered in terms of three different communication processes: upward [e.g., 72]; downward [e.g., 16]; and horizontal [e.g., 23]. This last process of communication is of special interest as it enforces the notion of integration, which suggests that however specialised particular departments may be within an organisation, co-ordination with other departments in different areas of expertise is necessary in order to make the organisation more seamless. One method of creating integration (or at best the illusion of it) has been promised by the strategy of ‘Relationship Management’ (RM). This paradigm seems to be prevalent in the banking industry [see 21], where it is seen as being particularly useful in ameliorating the problems between the IT function and the rest of the business as a way of ‘marketing’ perceptions about IT [e.g., 29].



The establishment of the role of the relationship manager is becoming more commonplace and has been devised (in the organisation under study) to combat problems caused by a BIT divide by providing both an understanding of the technology side and the business interests that they are meant to serve. Of course, many roles exist (with a different title) which could match this job description, as most roles involve some type of liaison capabilities. However, the establishment of a specific relationship manager's post bestows a distinctive status upon the individual, which has been given scant attention in the literature [but see 31]. However, it is not the purpose of this paper to debate the merit of a RM programme *per se*, but to take up the concept of 'relationship' which has proliferated in this area, in various guises (e.g., alignment) and employ it as the unit of analysis to study organisational communication. The literature that has been presented points to the continued and problematic ties between Business and IT. Information requirements (for basing decisions, enabling strategies etc.) from one side are not in the main communicated properly to the other, or are misunderstood entirely [see 79], and so a fresh focus is required to explain the phenomenon.

The central thesis of this paper therefore is that the notion of communication provides a more fruitful direction for studies to take. Communication is a prerequisite for relationship development and a key factor in relationship breakdowns [see 19], for an authoritative account from social psychology. In terms of conferring strategic advantage, communication-based organisations, which encourage cross-functional interactions, tend to be more successful with regards to internal operations [e.g., 80] and external international business relations [e.g., 24]. Although poor communication and collaboration tends to be the norm between, for example, IT specialists and (financial) product managers [see 82]. Therefore in order to address the various communication issues that a study of the BIT relationship presents, the paper is divided into a further six sections. Section 3 presents a four-dimensional framework to be applied to the context under study, which is organisational communication examined across a BIT divide in a UK bank. Section 4 provides the background details to the organisation in the study. Section 5 presents the research method and sample of interviewees. Section 6 presents the thematic content analysis. Section 7 outlines the utility of a four-dimensional framework approach to enhancing relationships in the working organisation and draws out a set of principles based on the framework's analysis for the improvement of BIT relations. Section 8 concludes the findings, with some final thoughts on the implications of this communication-based study.

### **3 PICTURE: A framework for the effective communication of requirements**

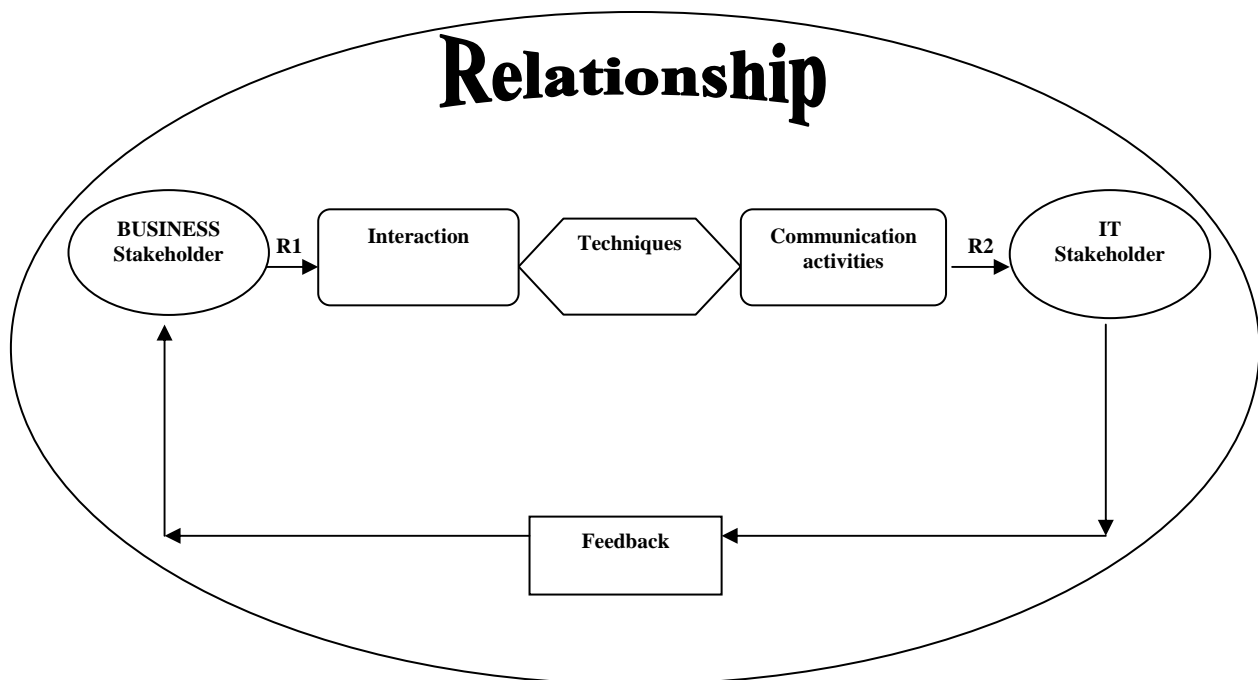
A four-dimensional framework (PICTURE) was applied in this communication study. This was a framework originally devised for the micro-level analysis of small group and



interpersonal contexts of communication in the elicitation of requirements for system design and how it could be improved [see 11]. The study reported here looks at the elicitation of requirements on a much broader level of analysis, in the wider context of the organisation, particularly the BIT relationship, within which the communication of messages (or their respective information requirements) is meant to occur. Alternative frameworks and models related to organisational communication have been focused in at least four (though not exhaustive) ways: 1) organisational structure [53] — a high performing organisation was found to house business and IT units which saw themselves as part of an equal partnership based on a strong foundation of communication; 2) co-operative work groups [2] — how the nature and quality of the interdependencies between various groups can be enhanced for more effective communication outcomes in UK banks; 3) Members' meanings of organisational communication [81] — planning an agenda for communication to increase satisfaction of communication experiences; 4) Knowledge gaps [1] — how the mismatch in knowledge between BIT manifests itself as misunderstandings (or gaps) and how these can be illustrated graphically.

The four dimensional framework presented here (PICTURE) attempts to provide an encompassing view of issues pertaining to organisational communication by focusing explicitly on a critical relationship within an organisation, that between the business and IT. The framework is referred to by the acronym PICTURE, which makes reference to both the four dimensions of the framework (numbered 1-4) and its area of applicability (requirements elicitation) and can be described thus: (1) **P**articipation and selection; (2) **I**nteraction; (3) **C**ommunication activities; (4) **T**echniques; **U**sed for **R**equirements **E**licitation. Fig. 1 presents a high level overview of the way that communication occurs within the BIT relationship according to PICTURE, a representation that is based on a classic model of communication by Shannon and Weaver [64].





**KEY:** R1 = Message sent; R2 = Message received.

**Fig. 1 PICTURE applied to communication within the BIT relationship [based on 64]**

This work transforms the early Shannon-Weaver Model considerably in looking to a more dynamic view of communication as a process that occurs within a group of stakeholders, which in this instance are managers from two sides of an organisation (business and IT). For example, previously unconsidered by the Shannon-Weaver Model was the concept of 'feedback', which is seen as an important mechanism for checking understanding and maintaining the flow of communication. The various elements of the communication process, as represented in Fig. 1 are explained next, in Sections 3.1-3.4, by way of the dimensions of the PICTURE framework.

### 3.1 Dimension 1: Participation and Selection

All human communication has an information source, which in this instance is a *type* of person or group of persons identified in Fig. 1 as 'business stakeholder' whose reason for engaging in communication is to share and negotiate knowledge on their requirements. A message that is sent via a source has a destination, which is identified in Fig. 1 as 'IT stakeholder'<sup>1</sup>. However, a stakeholder can also be seen as the destination of requirement messages as well as the original source, which is especially true if the concept of feedback is considered. A vital prerequisite in communication activities for sharing requirements is selecting the appropriate BIT representatives who can participate and therefore contribute

<sup>1</sup> The term 'stakeholder' has been used by Mitroff [48] referring to a group of people who can affect and be affected by organisational policy.



fully and effectively with a team [37]. Identifying suitable candidates highlights the importance of having an organisational structure. Interfaces between divisional departments need to be clear as well as the key members within departments in order to establish workable communication links so that an appropriate exchange of stakeholder views can occur [44]. Given the fact that there are many different needs and interests that require accommodation and co-ordination in determining information requirements of an organisation, there are many ways in which specific types of stakeholder can be identified. For example, stakeholders can be identified on the basis of: domain knowledge and responsibilities [5]; particular attributes such as power [47]; and roles [56].

Macaulay [42] however, usefully identifies a hypothetical group of stakeholders that can be categorised into at least three different types, presented here with a short description: (i) task knowledge and skill – domain knowledge; (ii) status – high-low ranking managers with decision making powers; (iii) responsibility – technical implementers and financial accountants. One example of a type of stakeholder represented in this work is the ‘relationship manager’. The establishment of such a role, as liaison, is relatively new in the industry and has been promoted in efforts to combat problems caused by a BIT divide. The relationship manager’s remit is to provide both an understanding of the technology side and the business interests that they are meant to serve; a co-ordination task which in practice is so demanding from a communication standpoint that it is almost impossible to fulfill [see 31]. This exemplifies the acute difficulties of sharing information with a wide variety of people, through interactions that are additionally subject to a number of mediating influences, discussed next.

### **3.2 Dimension 2: Interaction**

Before it is sent, stakeholders formulate messages by way of a transmitter (or an encoder), which in this instance is seen as the interaction between a number of *mediating* factors that influence the delivery of the requirements. Organisational life in general, then, is replete with a wide range of features that are manifest in any given organisation [54]. These features can be seen as elements (or sub-structures) of the overall structure of an organisation as typified by organisational charts, illustrating functional relationships. Structures need not be necessarily physical in this way, but can be perceptual (e.g., culture) which gives rise to the complexity that organisations present and the intricacies of the way that these structures link and co-ordinate with each other and across boundaries [26]. Typically, then, there are different types of ‘structure’ in place within an organisation that mediate the way that interaction proceeds, whether explicitly apparent or not. The interaction between



stakeholders for the communication of information requirements can be mediated on at least two major levels, which comprise the categories for this dimension outlined below:

(i) **Culture and politics** – A definition of organisational culture has been provided by Schein [62] as the pattern of basic assumptions that are accepted and used by an organisation. Building on this basic (but useful) definition is the notion that communication cannot be seen as a separate entity from culture as each is produced from the other as part of a highly dynamic relationship [63]. Moreover, the culture of an organisation has been shown to affect the messages that are communicated [86]. Typologies of organisations have been constructed which clearly indicate the different models of culture that various organisations can exhibit. For example, Quinn and McGrath's [57] typology distinguishes between market (the rational), adhocracy (the ideological), clan (the consensual) and hierarchy (the hierarchical), which have been shown in practice to affect, for example, the communications of project managers in the projects that they undertake [20], or the success of organisations as a whole [53]. However, work by Janson et al. [32] shows that not all organisations necessarily have to fit into one of these typologies. Research with a company called Colruyt, exhibited a unique culture that was strongly influenced by Mr. Colruyt himself, who was dedicated to obtaining the maximum participation and commitment of every single employee. The results of such a philosophy were so effective that the business and IT within the organisation enjoyed a close working relationship within Colruyt, which owes much to the culture of the company. However, while Colruyt exhibited a strongly uniform (and communication-based) culture, Rousseau [59] has acknowledged that some organisations can be quite fragmented culturally, with a number of sub-cultures in force, which can be evidenced than by the fact that business and IT are often divided within a single organisation (see Section 4.1 for more detail on communication across a divide).

(ii) **Roles** – Given the nature of heterogeneous work groups, stakeholders will adopt roles and relationships relative to each other. The adoption of roles holds implications for communication as 'mediating posts', where the type of role adopted can affect the quality of interaction and therefore the knowledge transfer of requirements. At the most basic level, one way that roles can be described is by being either business- or IT-led, which has typically been characterised as a 'culture gap' [e.g., 73]. The uptake of different communication roles can be dependent on the situation in question, but provides the means through which knowledge exploration and collaboration and negotiation (in the case of conflict) can be enabled [70]. All of these activities are important in the communication of information requirements and their successful execution is dependent



on the particular collection of behaviours exhibited by an individual, which serve to make up a certain management style [6]. The style that a business/IT/relationship manager adopts in the communication of requirements determines the way that information is exchanged, where such styles have been grouped into four along two main dimensions, responsiveness and assertiveness [see 15]. These are: i) analyser (less responsive, less assertive); ii) director (less responsive, more assertive); iii) relater (more responsive, less assertive); and iv) socialiser (more responsive, more assertive). Based upon this simple categorisation, many assumptions can be made about the links between (culturally influenced) management style and communication, although the permutations can seem endless [77]. The key point to be made here is that management style is a major component of the communication process. Certain styles will be more or less amenable to creating an atmosphere, in which communication is encouraged among employees towards the development of a shared understanding of the requirements.

### 3.3 Dimension 3: Communication activities

Encoded messages require decoding by the receiver and in this instance it is the communication activities and the particular behaviours that stakeholders engage in that serve to break down the messages or requirements (represented as R2 in Fig. 1) in order to create a mutual understanding. The communication activities that are undertaken by the management echelons of an organisation have a bearing on the degree, structure and quality of communication between organisational members. Indeed, communication is a key activity of managers [65], so much so that communication is considered as actually being the work of managers [46]. However, the activities should be structured in a way that promotes effective communication, especially in light of research that has indicated that engaging in co-operative and highly communicative strategies has been linked to excellence in performance of individuals, for example in the IT domain [69].

The basic and most productive behaviours of a communication activity programme revolve around knowledge acquisition, sharing and integration activities. Sharing activities involve negotiation behaviours, which are essential to understanding the information requirements, reinforcing participation and avoiding conflict. Communication activities can be categorised by behaviour in three ways [based on 84]:

- (i) **Knowledge acquisition** – There are links that need to be made between the different stakeholders' realms of knowledge and experience and of the technological options, so as to achieve a shared understanding and common vision. This behaviour can also be seen as the preparation stage for future knowledge negotiations.





- (ii) **Knowledge negotiation** – Information requirements need to be negotiated as part of an iterative process, which helps to define the requirements (assuming the knowledge of requirements has been satisfactorily acquired) through a sharing of multiple stakeholder perspectives and the understanding that this fosters.
- (iii) **Knowledge integration** – Acceptance of the strategy/system implies integration of stakeholder viewpoints where all parties co-operate to understand the scope of the problem and are satisfied that it will work within the limitations imposed (e.g., particular work relations, organisational structure, etc.)

Engagement in these activities can be said to make communication effective in dissemination and shared interpretation of information [3], which in the banking industry is acutely necessary in order to rapidly launch new products to meet market demands [87]. However, while these activities provide a structure, they cannot be considered without relation to the techniques that can facilitate communication, which are discussed next.

### 3.4 Dimension 4: Techniques

Communication occurs through different channels, both verbal and non-verbal. Different techniques, or media (to use a term more commonly used in the context of organisational communication), are available which can be categorised in different *forms* to convey an array of organisational messages to meet certain communication goals that the sender intends [74]. Selecting the most appropriate media for conveying messages is of the utmost importance in terms of the functions that can be achieved by the content and form of the messages that are sent out. For example, in receiving timely feedback, reducing uncertainty, resolving differences in opinion and achieving understanding to name but a few possible communication outcomes [30]. To this end media richness theory has proved influential [see 13], which postulates that organisational media can be organised into a richness hierarchy, where understanding is changed by the capacity of the media's richness. This richness can be evaluated on four different levels [see 14]: 1) the opportunity for timely feedback; 2) the ability to convey multiple cues; 3) the tailoring of messages to personal circumstances; and 4) language variety. Table 1 displays the variety of media available (and their richness according to the four levels) for communicating messages within an organisation.



FORM	CHANNEL	MEDIA RICHNESS			
		1	2	3	4
SPOKEN	Meetings (informal/formal); conferences	-	-	-	-
	Video (phone/conferencing)	-	Ltd	-	Ltd
	Telephone	-	Ltd	-	-
TEXT-BASED	E-Mail	-	X	-	Ltd
	Memos; letters; fax	Ltd	X	-	X
	Company newspaper; bulletin board; policy manuals; posters; intranet	X	X	X	Ltd

**KEY:** - channel contains feature; X channel does not contain feature (apart from the standard visual

format); Ltd channel partly contains feature

**Table 1. Media richness of spoken and text-based channels of communication [based on 14]**

According to media richness theory, any media that involves face-to-face discussion (e.g., meetings) will be the richest as it operates on all four of the levels described above as opposed to written communications (e.g., e-mail), which decrease the opportunities for interaction. However, computer-mediated communications, such as e-mail, have given rise to a great deal of research into their effectiveness in improving the flow of communication within an organisation [e.g., 71]. This has shown that the full range of benefits of such electronic media may be more far-reaching than previously assumed by media richness theory [see also 51]. Indeed, Yoshioka et al. [88] have taken this idea yet further in their proposal of a genre taxonomy of communicative structures. A genre (e.g., a meeting) can be defined as a communication type recognised and enacted by members of an organization and analysed on a number of dimensions with the aim of helping managers, for example, to learn more about communication processes and how they can be more effectively applied. Despite the diversity in these perspectives on media selection, the key element is the idea of ‘richness’ and the development of a selection system that will guide and support the organisation’s use of various channels of communication. The way that this is achieved in the particular context under study — FinCo, a UK bank — is discussed next.

#### **4 FinCo: Organisational background**

The focus of the study is on the elicitation of requirements in the context of communication within a single UK organisation and across a BIT divide. The organisation of interest is



referred to, for reasons of confidentiality, as FinCo — a major high street bank, with a customer base of over 15 million people. As a financial services provider, FinCo has faced fierce competition. The advent of non-banking or Internet only organisations offering highly attractive rates on financial products, has created an environment where the banking industry as a whole has been aggressive in the uptake of new technology for generating IT solutions for business to meet their evolving requirements [e.g., 39, 33]. In addition, increased pressures to be innovative, to achieve new financial success, effective internal, external and cross-functional communication becomes essential in co-ordinating these initiatives with existing services and infrastructure [40]. The litmus test of the success of a BIT partnership is reflected in, for example, customer satisfaction with interactions with the bank and the quality of their product [9].

An additional twist in this organisational context is the implementation of a Relationship Management (RM) programme, which comprised FinCo's response to improving relations and communication between BIT across a perceived divide (see Section 4.1 for extended discussion on the divide). Analysis of this organisation was pertinent to the study of the BIT relationship as this divide was perceived to be significant in particularly inhibiting the communication of requirements of retail business and their counterparts in IT (namely directors and managers). Furthermore, this study made use of a free data set in the sense that the interview questions posed were not directly related to the framework as in previous work [see 11]. This study then was conducted as more of a test of PICTURE, which is deemed useful in assessing the levels and quality of communication in the organisation in accordance with each of its four dimensions. The particular areas of the organisation under scrutiny — retail business and IT — are presented next.

#### **4.1 Retail business and IT: Communication across a divide**

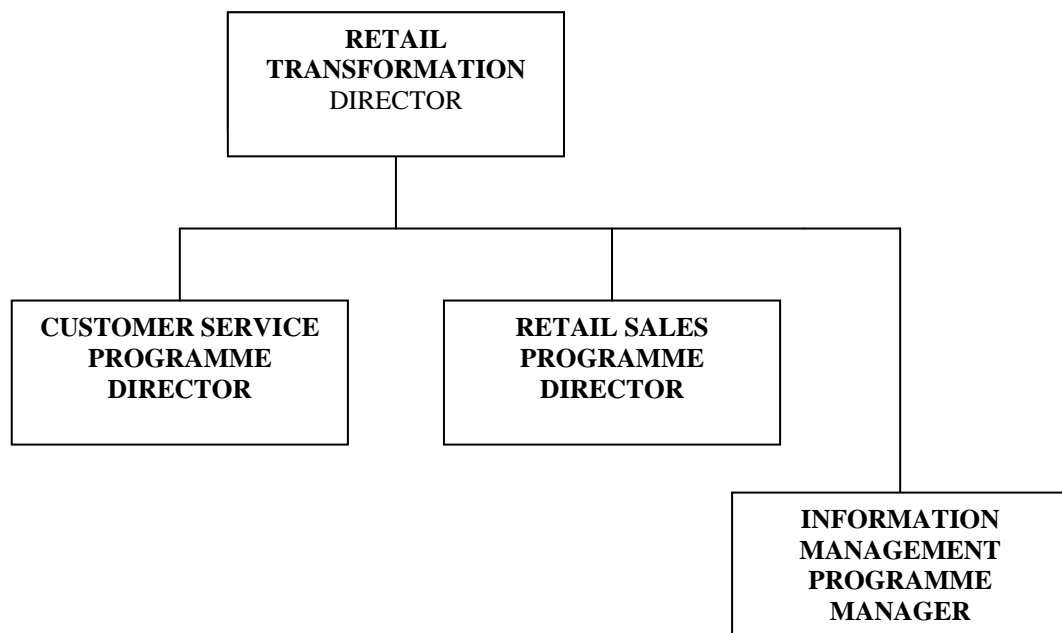
As part of its banking structure, FinCo has three main divisions (with each containing different business units) in retail, wholesale, and wealth management and long-term savings. In addition, the company also has one (recently integrated) IT division, which incorporates most of the IT departments and enables the company to perform their business by providing and maintaining the technology and infrastructure for present and future market ventures. Internally, however, FinCo has followed the UK and US tendency to separate business and IT activities, implicitly creating a 'barrier' between them [12, 68]. In considering the divide, the focus of the study was directed at two key areas of the organisation: (i) retail banking and (ii) IT. Retail banking was specifically chosen as some research suggests that it is here that organisational divisions appear more pronounced [e.g., 38] and because it is the biggest 'customer' of the IT part of the organisation. Consequently, this 'barrier' has emerged as an



area of organisational concern owing to its perceived negative effects on organisational dialogue and communication. The two opposing areas of business (retail) and IT are now described.

#### 4.1.1 Structure of the retail business departments

Retail banking covers services ranging from current accounts through to credit cards, buying and selling shares to sending money overseas. The retail business division is comprised of different (often competitive) units catering for customer service, retail sales and information management, for example, and is relatively distributed. All of the different retail business units are considered as part of a general change programme (or 'transformation'), emphasising delivering change rather than (technical) capability in terms of optimising resources and delivery of benefits, which are constantly measured internally and against competitors' standards. Owing to its vast nature, only the relevant part of the structure of the retail bank, with the main retail business units is presented graphically in Fig. 2 (which has been constructed with the aid of organisational charts).



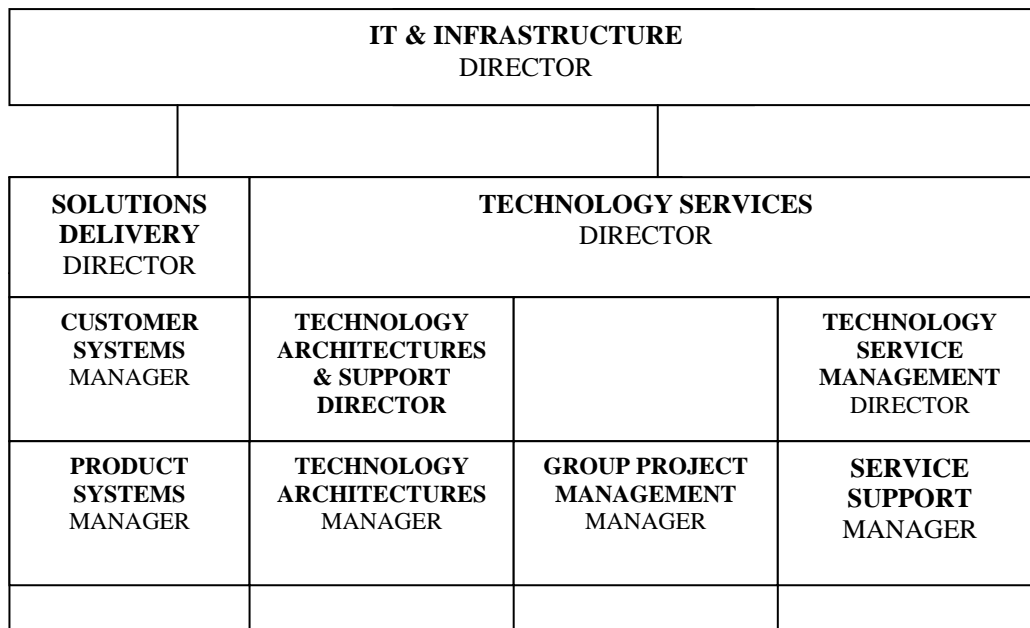
**Fig 2. Part structure of the retail business division**

Fig. 2 provides a clear illustration of how the business is organised into units, which are relatively separate from one another. The figure also provides an indication of the hierarchy as part of a tiered directorate down to management levels. The ways in which these departments communicate with each other, however, is not apparent from this figure and internal business communications, whilst important, are beyond the scope of this study.



#### 4.1.2 Structure of the IT departments

The IT division is comprised of units catering for solutions delivery, infrastructure and architectures and support, for example, but is relatively (and recently) centralised. Again, with the use of organisational charts the relevant part of the structure of the IT division can be conceptualised as shown in Fig 3.



**Fig 3. Part structure of the IT division**

Fig 3 shows a very different organisational structure to that of the retail bank, though one point of similarity is that the IT directorate is also tiered, and managers are also represented (the blank space represented in the figure is copied from the organisational chart). The figure, then, highlights a ‘silo’ structure, where departments are divided into separate lanes, as it were, and where adjacent lanes do not necessarily have as much contact and communication as might be expected. Similarly, departments within lanes may not necessarily be in close contact, though as with the business, the issues of internal IT communications have not been focused upon in this study.

## 5 Research method

The approach to this study can be described as interpretative, where FinCo’s communication issues were investigated within the context of the BIT relationship. Such an approach is commonly favoured by communication researchers [see 50], as it affords an in-depth look at a dynamic process such as communication in terms of the shared meanings and experiences of



people [e.g., 83]. These are interpreted from the perspectives of the individuals involved, given that multiple realities exist in this organisation which have formed two very distinct realities (business and IT), socially constructed by the participants themselves through their respective communication experiences [see 25]. Therefore this study sought to establish the perceptions of communication from the business and IT groups, which is in keeping with many other interpretative studies of this kind, such as Fuller and Lewis [22], which focused on the meaning of relationships in small businesses.

The data were collected by way of semi-structured interviews. In total, 29, (hour long) interviews were conducted with each of the individuals from either retail banking and IT with the aid of an interview guide [e.g., 67]. A set of specific questions was prepared, designed to probe for experiences, thoughts and opinions relating to perceptions of the BIT divide (see Appendix A). The questions were asked in a natural conversational order and extra questions were asked of respondents in pursuit of clarification or further avenues of relevant enquiry. Table 2 illustrates the exact nature of the interviewee mix.

	ORGANISATIONAL DIVISION		
MANAGERIAL LEVEL	Retail Banking	IT	TOTAL
Director	8	5	13
Head	2	2	4
Manager	2	10	12
TOTAL	12	17	29

**Table 2. Composition of the interviewees**

As can be seen from the table, the interviewees cover the spectrum of top-level management for both retail banking and IT. Of note is the position of 'Head', which was a new title given to individuals as part of organisational restructuring which was underway at the time of the interviews. The 'Head' position is considered as part of the tiered directorate and so is above manager level and denotes organisational efforts to promote certain departments and improve communication. For example, there was a 'Head of Customer Service' in the sample and a 'Head of Relationship Management' (which denotes the initiation of a relationship management programme). Individuals beneath management level were to be interviewed in the next phase of the study, which was outside of the time frame for the work presented here. However, the collection of data from at least three different levels within the organisation permits the elicitation of multiple viewpoints from individuals within the same departmental division to be contrasted across divisions so as to identify the themes that represent common issues for both business and IT.



## **6 Data analysis: Theme identification**

Data analysis took the form of a *thematic* content analysis of the interview material [see 49], which looked to identifying a number of themes, assigned to the four dimensional categories of PICTURE, to provide a qualitative account of organisational communication. A thematic analysis of this kind [e.g., 60, 18, 41] is highly appropriate to the present study as the themes that are identified provide a useful illustration of the interconnections between dimensions and categories. The themes were generated by following a basic, but systematic, coding procedure conducted manually [see 67, 17]. This took the unit of the analysis as the complete concept of a respondent's utterance, typically ranging from a few words to an entire paragraph to which codes were attached [45]. These codes act as labels on the chunks of data, which represent the theme prevalent in that section of text, which is then assigned to the predefined categories for each dimension. Thus nine broad themes were identified in total. The ensuing sections (6.1-6.9) revolve around discussion of each individual theme supported by extensive narrative descriptions. This is typically verbatim extracts from the transcripts, delivered from the point of view of firstly the retail business, but balanced with a view from IT in order to compare and contrast perceptions of communication from two key areas of the organisation.

### **6.1 Business/IT experience**

A lack of business/IT experience was a distinct problem within this organisation though it was accepted as the norm. As far as the business could see, the main difficulty revolved around, what was consistently described as “the right people for the job” (Director, Retail Finance), though it was generally accepted that there was little scope for IT to increase resources in terms of recruiting people with sufficient experience. IT personnel also recognised that the ability to allocate the right people to the job was seriously debilitated and added to this was the problem that business requirements often exceed the resources available. Interestingly enough, considering the amount of criticism levelled at IT from business, IT in fact agreed with the business on the issue of business/IT experience. IT also recognised that there was a need that the “right people should take lead roles according to specialisms” (Director, Group Technology Services). Also, that there was a call for “hybrid skills” (Manager, Group Project Management), as the boundaries between business and IT were very unclear.

### **6.2 Organisational structure**



The organisational structure was very particular in this organisation and was not very conducive to creating a team culture, as it provided a separation of business and IT activities, effectively constructing the divide in the first place. The nature of the organisational structure was in the form of “silos” for both Retail and IT. Not only that, but these silos were hierarchical in that “problems have to go to the top to get sorted” (Director, Retail programme). Also, as the business observed, the “silos” in IT were very “product related and expertise [was] concentrated in a small group of individuals” (Head of Customer Service). Overall, business identified that there were “distinct cultures” between IT and retail in particular (Director, Retail Customer Service).

IT personnel reaffirmed the silo structure of the organisation as a whole and furthermore that Retail’s structure seemed to “support layers of responsibility” (Director, Group Technology Architectures and Support). This, as far as members from the IT group could see, acted as a barrier to a successful mixing of business and IT concerns. Another point that was made concerning structure was in terms of the working timetable. IT pointed out that Retail works on the traditional 9-5 schedule, whereas IT tends to operate on long (up to 20-hour) days. The difference in working patterns explained instances of where Retail demanded delivery of solutions within a specified time frame that IT could not hope to accommodate, either because of the complexity of the task that Retail had not anticipated, or because IT were busy meeting other competing deadlines.

### **6.3 Location of IT division**

The physical location of the IT division in isolation from the Retail division was symbolic of the general estrangement in working relationships. The image that the business had of IT was that “IT people don’t move around, they just sit in X” (Managing Director, Retail Finance) and they have different agendas and “just want to be told what needs to be done” (Manager, Group Development). These views reinforce the reactive rather than proactive nature of IT and their unwillingness to align IT functions with the rest of the business. From IT’s perspective, they felt that they had almost been removed from the rest of business to be placed within the confines of one building, although many in IT voiced the idea that “co-location should be encouraged” (Manager, Data Centre Operation). This illustrates that there is a desire for co-operation on behalf of IT and that their physical separation only encourages misunderstandings and a bad feeling among the business that IT is only concerned with the technology it delivers and not to whom it delivers.

### **6.4 Business and IT camps**





The theme of business and IT camps related to the identity that business and IT held about each other. From the business perspective, they were quick to establish that there was a ‘them and us’ type of attitude. The business saw that IT very much distanced itself from the business. One manager from the Information Management Programme said that on several occasions they would hear the IT phrase “the business wants this”. Their argument, supported by many others, was that IT *are* the business, as much as other parts of the organisation, as they depend on each other to meet customer needs and demands. Of course a lack of focus on customer contact shows that IT is not united with the business regarding the same objectives (see also Section 5.6.2). Even harsher criticism was that IT displayed a lack of a “one team attitude” (Manager Director, Retail Banking). Such was the strength of feeling on this issue, that it was felt by some that IT only identify with their own particular group and do not see themselves as part of the organisation as a whole, just more of an add-on.

IT similarly recognised that there was a lack of a “one team culture” with the business (Manager, Retail Channel and Operations Development). Although, IT felt that part of the reason was that it was perceived that business had an extremely limited view of IT as simply a business support function. Looking at the responses of some individuals that attested to the importance of IT in helping to drive the business as a whole, it was clear that this ‘one team’ attitude was not upheld across the organisation. A possible reason for this was the lack of alignment in terms of reward structure between the two groups. While business members would often receive rewards for meeting deadlines or cost-cutting, IT’s performance when exceeding expectations failed to be recognised and this lent weight to the perception that IT in general was undervalued and that their efforts were subordinate to those of business, who reaped the ultimate rewards.

### **6.5 Clarity and understanding**

The most commonly noted feature of business-IT interactions was that people’s roles seemed unclear to both groups. Many of the business directors admitted that they just did not know who to talk to in the IT department and what certain people or departments could offer them. This was a perception which business attributed to IT as well, evidenced when the IT division introduced passwords on a system, but failed to recognise the appropriate people within business with whom they should co-operate. On a par with business, IT also found that pinpointing the appropriate business people with whom to communicate on problematic issues was “extremely poor especially regarding system breakdown” (Manager, Data Centre Operation). This is evidently a situation that requires immediate rectification as a long delay could dissatisfy customers and cause financial loss.



## 6.6 Gaps in understanding

Gaps in understanding of either the business or IT was a prevalent theme in the transcripts revolving around people keeping abreast of the 'big picture'. What was made apparent from the business perspective was that there was an overwhelming need for business and IT to share the same objectives. However, the reasons for this not being forthcoming were firmly placed at the door of IT personnel. A typical comment was that "IT needs to understand the needs and constraints of business" (Head of Relationship Management, Lending). This suggested that IT did not identify with the business in any way, which would "open the doors to understanding", as one director of Partner Relationships described it. Indeed, the main complaint from business seemed to be IT's blatant disregard for business matters, where the delivery of technology has many implications for business which need to be focused on in IT projects. The main reason for this was that "IT is too compartmentalised" (Director, Retail Finance) and that they do not try to talk to business people in a language that they understand. For instance, there were many occasions on which business people signed off documents from IT, despite the fact that they often did not know what they meant. Overall, the main area of criticism was that "IT provides a reactive response to requirements" (Director, Retail Programme), when in reality more closeness is required with business in order to share needs.

While the criticism levelled at IT was strong, IT was its own harshest critic, as they upheld everything that was said about them by business. The reactivity of IT's actions was confirmed by an array of IT personnel. It seemed to stem largely from the fact that they have "little knowledge of business requirements and objectives" (Manager, Group Development) and even less appreciation of the impacts of IT on the business, which meant that they were in fact "missing the whole picture" (Director, Retail Customer Risk and Decisioning). However, a criticism of the business was on the subject of their "naivety...on how requirements fit with IT timescales and affect costs" (Systems Manager). This shows that business are also missing the 'big picture'; though their lack of appreciation of IT is not made as much of an issue as IT's ignorance in certain business areas.

## 6.7 Information exchange

This theme refers to the fact that it was felt from the business perspective that there was a lack of information exchange, owing to a shortage of communication channels within the organisation. As one director from Retail Banking pointed out "communication with lower levels of [the] organisation is important but rare". Communication between the business and IT, was characterised as lacking in dialogue, by being very one-sided as the business seemed



to view IT as being very closed and lacking input into processes. As a manager from the Information Management Programme described, there are “no system ideas or input from IT that would provide applications to the business area”. While IT’s input was perceived as minimal, it was also the case that little cross-fertilisation of knowledge was encouraged between business and IT. Indeed, a Managing Director from Retail Banking complained that they were “rarely asked to talk at IT conferences” which might have been symptomatic of the fact that IT had a “tendency to not talk to people in the know”, with IT preferring to “reinvent the wheel” (Director, Retail Programme). Evidently this is a time-consuming activity and highly obstructive, though it is perhaps an indication of the different cultures of the two groups, which many interviewees commented on and which served to perpetuate many of the communication problems that were experienced. However, probably the most damning complaint voiced by some of the business personnel was that there was, as one director of Retail Finance described, “a dearth of information to indicate why projects fail to start on time, etc.”. This suggests that history is repeating itself in this firm, with costly consequences especially in communication terms.

Interestingly enough, the IT perspective on this theme was similar to that of business in its critique of their approach to IT problems. IT saw that somewhere along the line there appeared to be a bottleneck in the channels of communication; as one manager of Customer Systems put it: “messages to business don’t get through or are confused”. Conversely, there was a “lack of information coming back from the business” (Manager, Service Introduction), which would evidently cause a lot of problems. However, despite their troublesome nature, these problems afford opportunities for discussion of a concrete issue to diagnose the nature of the difficulty, though this was not the case in the experiences from IT. Indeed, the common situation was that “system problems were fixed without discussion of issues with the business”, which was symptomatic of the “limited channels for discussing problems” (Director, Solutions Delivery). Much of the reticence on behalf of IT to engage in a dialogue with the business, stems in some way from the fact that they have “difficulty in articulating problems to the business” (Systems Manager). Generally, the conversion of IT language to business speak was taken care of by the service managers, though this situation proved less than satisfactory. Another complaint from IT was that business did not seem to understand the implications of some of their technical requests. The business often gave poor notice on demands that continually changed, though this may also be a reflection of the fact that IT failed to understand the dynamic nature of business. A lack of open communication channels between the two groups does not allow for an efficient exchange of information, which would inform decision-making to the mutual satisfaction of both parties.



## 6.8 Customer contact

While the focus of this analysis is on the internal nature of communications in terms of the business-IT divide, much mention was made of the contact with the customer or, as the business personnel more colloquially put it, contact with ‘the man on the street’. In terms of the communication of requirements, this outside entity is an important one when considering the BIT divide. The generation of both business and IT requirements stemmed from having a customer to deliver to and whose requirements had to be met, although this service could be hindered by a BIT divide. Indeed, it was felt by the business that the flaw in IT’s working practices was that they did not realise that they were in fact working for a customer. The idea of the customer was more tangible for the business, especially for the retail side, as their whole existence is predicated on the fact that they have someone to sell a service to in the first place. This theme supports the one of ‘information exchange’ (in Section 6.7) as it is clear that if IT distances itself from the business, then they are too far removed from the customer to be aware of the technological impacts of the systems that they have the responsibility for implementing.

From the IT perspective, there was little acknowledgement of the ‘man on the street’, though a few managers admitted that IT generally ignored the customer. One instance of this can be seen in the case of the systems failing in branches. One IT manager admitted that this would be treated as a purely technical problem, whereas in fact it is an urgent customer (or human) problem. This belies the fact that IT tend to operate from a very machine-oriented perspective looking at the system purely in terms of hardware and software and not from a more integrated perspective of system, people and context. However, despite this somewhat closed view, IT managers did say that they in fact received “little feedback on the customer experience”. This implies that they may require assistance and constant reaffirmation that they are in fact delivering to business and ultimately to a customer. The fact that the service IT performs is not necessarily well-received needs to be addressed.

## 6.9 Meetings

In this organisation, there was no prescribed schedule for meetings between business and IT. One director (Retail Banking) described the process for gathering people for a meeting as totally “ad hoc”, where it felt as if the people at the meeting had been located through a random flick through the internal telephone directory (which was actually the case in some instances). Therefore, the people at the meeting were not chosen with any particular criteria in mind (apart from having an entry in the phone book). In general, the complaint was that



there were “not enough forums for talking” (Director, Retail Finance). What tended to be the case was that business-only forums or IT (systems)-only forums did not allow for enough interactivity to take place, which in turn limited the representation of each community and the scope for increased understanding through debate and the exchange of ideas, however disparate. IT also highlighted the fact that, aside from regular formal meetings, there was a severe lack of “mixing and talking with people generally” (Manager, Supply Management). The general infrequency of meetings served to maintain the divide between the business and IT and to perpetuate the belief that these two groups were more different than similar.

### **7 PICTURE: An image for organisational success**

This study aimed to provide an explicit test of PICTURE, in the use of a free data set to provide additional support for the framework and its applicability to issues involved in the communication of requirements on an organisational scale and across a divide within it. In this analysis, then, themes were assigned to the four dimensional categories, (see Table 3), the significance of these results are discussed in the context of the difficulties encountered by this particular organisation.

<b>DIMENSION</b>	<b>CATEGORY</b>	<b>THEME (and Section number)</b>
<b>PARTICIPATION AND SELECTION</b>	Task knowledge and skill	6.1 Business-IT experience
	Interaction	6.2 Organisational structure 6.3 Location of IT division 6.4 Business and IT camps
<b>INTERACTION</b>	Culture and politics	6.5 Clarity and understanding
	Roles	6.6 Gaps in understanding
<b>COMMUNICATION ACTIVITIES</b>	Knowledge acquisition	6.7 Information exchange 6.8 Customer contact
	Knowledge negotiation	6.9 Meetings
<b>TECHNIQUES</b>	Spoken	

**Table 3. Categories and themes relating to perceptions of a business-IT divide**

The themes surrounding the dimension of interaction, particularly within the category of culture and politics, were more numerous than in other categories. This shows that this aspect of organisational life appeared to be causing major problems for FinCo in terms of successfully communicating requirements across the BIT divide. Also of note were themes associated with the category of knowledge negotiation, where two key themes emerged (information exchange and customer contact). This demonstrated that opportunities within



the organisation to communicate were practically non-existent and could be starting to have a dangerous knock-on effect on relationships outside the organisation, such as with their customers.

The thematic findings, therefore, hold interesting implications for this organisation in terms of both the extent and quality of communication that exists. FinCo's problems have clearly manifest themselves as a divide within the organisation, of which there is a strong awareness, although the actual extent of the communication problem may not be so obvious to the stakeholders. In this capacity, the PICTURE framework has proved useful in pinpointing certain areas that require urgent attention. FinCo's attempt to introduce a RM programme is admirable in the sense of being proactive about tackling a problem, but there are in fact many misgivings about the potential success of RM. This suggests that the organisation, as revealed by the analysis, could perhaps make use of the PICTURE framework as an aid to identifying and combating potential problem areas for communication. This is especially true in the case of anyone undertaking the role of a RM, who may encounter a difficult time in co-ordinating his activities within such a communication minefield.

The drawbacks to this research are that relationships are extremely important but are seriously misunderstood, as revealed by this communication study. The study focuses on the BIT relationship at a very basic level, in the sense that internal communications within the separate business and IT departments are not analysed. Such analysis could provide a clearer and more complete view of the causes of such a divide and a useful typology of relationships, as provided by Fuller and Lewis [22]. In addition, the interviews in this study only extended to participants at the management level. Interviews beyond this level would have proved useful to obtain the 'grass roots' view of the BIT relationship and value could also have been gained from groups outside the BIT relationship, such as customers and suppliers, so as to build up a comprehensive and dynamic view of communication within the company.

In many ways, the state of relationships within an organisation (particularly BIT) can act in this case as a barometer for the communication effectiveness of the organisation as a whole, given that the BIT relationship is pivotal to the organisation's success. Communication is embedded in many organisational processes and so it is an extremely useful and powerful lens through which to view the BIT relationship, particularly with the aid of a framework such as PICTURE. The next section explains clearly the value of PICTURE through the provision of clear practical guidelines, illustrating its worth as an organisational tool for diagnosing communication problems.



## **8 Four communication principles**

The discussion of communication issues within FinCo can be succinctly summarised by the presentation of four broad principles. These have been derived from (i) the structure of the framework (dimensions and categories) as explained in Section 3; and (ii) the thematic analysis of the interviews from FinCo's business and IT managers and directors. The principles demonstrate the utility of the framework for pinpointing the pitfalls as well as directing attention towards the benefits that can be gained for organisations attempting to become more communication-based.

### **PRINCIPLE 1: KNOW YOUR STAKEHOLDERS**

Become familiar with who would be appropriate for inclusion into the stakeholder group from anything from the execution of a task, development of a project or advancing the organisational vision or strategy. The general lack of understanding of types of stakeholder in FinCo has led to dealings with people whose input will be severely limited in acquiring, negotiating or reaching agreement (see Principle 3), primarily through lack of either business or IT experience. The company's response to such gaps in experience was to set up the RM programme as a method of guaranteeing buy-in by pulling the two sides of business and IT together. In communicative terms, the success of such an enterprise is yet to be fully realised but as to encouraging full participation from BIT, knowing who to collaborate and communicate with remains a problem area.

### **PRINCIPLE 2: BEWARE OF ORGANISATIONAL INFLUENCES**

There are many factors that can influence communication, the most important ones existing 'behind the scenes'. These factors act as structures in an organisation, such is their robustness, and they clearly mediate interaction in such a way that these effects can often determine the success of a project/strategy. In FinCo, the BIT divide was encouraged for example by the physical dislocation of core units which further estranged parties that should have been working together, although their opposite numbers in corresponding units across the organisation often remained unknown (see Principle 1). The culture and politics of an organisation can set the whole tone for the way that messages are circulated, through the use of media (see Principle 4) though this may not be obvious to an outsider. At best, roles and management styles need to be fairly clear-cut — a lack of a defined plan for stakeholder interaction will mean that stakeholders are largely left in the dark as to their specific involvement in the organisational scheme.



### **PRINCIPLE 3: BUILD WORKING RELATIONSHIPS**

In order for relationships to be built up and to operate successfully, first, knowledge must be acquired in terms of the understanding of BIT requirements and commitment to the changes that will ensue. In FinCo, however, major gaps in understanding within the BIT camps impeded information acquisition. Secondly, knowledge, once acquired, needs to be negotiated, as perspectives need to be shared and an overall understanding of the problem area reached. Again, however, this was not executed to a great extent in FinCo, as there was a strong lack of information exchange (i.e., two-way communication from the business to IT and vice versa). If successful, this would have allowed for updating the relevant people across the organisation to the tasks at hand, a process that can be additionally inhibited if the knowledge that is first acquired is very weak. Thirdly, once knowledge is acquired and negotiated there is a need for integration, where this information is consolidated and accepted by all parties, which can be achieved through formal means such as meetings/conferences. These can serve to allay fears, clear up misunderstandings and reinforce the sense of commitment, which binds a relationship together and makes it work.

### **PRINCIPLE 4: UTILISE A RANGE OF COMMUNICATION MEDIA**

There is a whole range of media available that serves to uncover different types of information that are needed to construct requirements, maintain relationships and indeed sustain the general flow of communication as open and multi-directional. Meetings were used overwhelmingly in FinCo as a method for scheduling communication and connecting people, but they had variable success particularly if Principle 1 was flouted, as unsuitable involvement of stakeholders would have a detrimental effect on the outcome of the meeting. There is a call for a combination of media use in order to gain access to people, and thus the information that they can provide, in different ways. However, a caveat for the use of media use in a real-world functioning organisation such as FinCo is that it is often not only sensitive to stakeholder type but also to the culture and politics within a project team/organisation. The culture of an organisation may restrict the use of certain media, where time management schedules or the pervading philosophy does not allow for extensive interaction to occur, as apparent in FinCo's clear BIT divide.

## **9 Summary**

The challenges of functioning in large (and multinational) organisations are huge, particularly in terms of maintaining the balance of communication, in horizontal organisational structures. Communication cannot be made the sole responsibility of one individual such as a relationship manager or even a designated communications department. For example, in his





study of corporate communications managers, Marion [43] points out that communication is an activity, which cannot be localised to any one organisational area, although it may have a specific function to serve (e.g., public relations). This study upholds that idea in advancing the view that the key to communicating effectively is ‘seeing the big picture’. The business and IT parts of a company need to communicate together in such a way that the organisation can simultaneously recognise group specialisms and expertise, whilst presenting a united front.

## Appendix A. Interview schedule

<b>Section A: Background/General</b>
<p>1. Can you describe your department’s primary role(s) and responsibilities within the organisation?</p> <p>2. Which other functional units/departments does your department interact with to fulfil these roles and responsibilities?</p> <p><b>PROMPT: How important is the relationship with IT and in what ways?</b></p> <p>3. Please describe typical scenarios of interaction with business/IT units, highlighting any particularly good or bad examples?</p> <p><b>PROMPT: Purpose, effectiveness, formalities, frequency, communication channels?</b></p>
<b>Section B: Intent for enhancing business-IT relationship</b>
<p>4. Given your knowledge of business/IT strategy/direction, how do you see your relation with business/IT units changing/transforming in the future?</p> <p><b>PROMPT: Optimism or pessimism and why?</b></p> <p>5. If you were granted three wishes to improve the relationship between business and IT units, what changes would you like to see within your relationships?</p> <p><b>PROMPT: Expectations, intent to collaborate and requests?</b></p> <p>6. What could you do to facilitate these changes and what could others to do to facilitate these changes?</p>
<b>Section C: Relationship management solution option</b>
<p>7. What do you understand by the term ‘relationship management’ and its role?</p> <p>8. In what ways do you think ‘relationship management’ can/cannot improve the relationship between the business and IT?</p>

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