Chapter One: Introduction

1.1 Introduction

It has been recognised for a long time that meetings occupy large amounts of time: studies reveal not only that managers may spend up to 60% of their time in meetings, but that this time is all too frequently characterised as being unproductive (see e.g. Hymowits (1988)). The lack of productivity may be attributed in part to what we characterise as process losses - problems involving communication, teamwork and workgroup efficiency, that are themselves very often affected by the variations in status between the members of the meeting. Groups themselves are pervasive, constituting an almost universal organisational structure. The rationale behind the superiority of the group over the individual lies in the fact that a group of people may be better at solving complex organisational problems than a single person. This is particularly true for problems that are multidisciplinary in nature. Hill (1982, p.525) argues that while group performance is "generally qualitatively and quantitatively superior to the performance of the average individual", it is often "inferior to that of the best individual in a statistical aggregate". Janis (1972), furthermore, describes the perils of groupthink - situations where group judgements proved inferior to individual members' judgements.

Group Support Systems (GSS[1]), a technology that enables and facilitates various forms of group communication, has been suggested as a tool to improve meeting productivity. Substantial work has been undertaken in the laboratory and more recently in the field (see Dennis et al. (1991), Benbasat and Lim (1993), Pervan (1994a), and Davison (1995a) for reviews). Research data from field studies suggest that GSS do indeed help meetings to be more productive, as well as improving participant satisfaction with the meeting processes, and reducing costs of time and money (see e.g. Post, 1993).

It is useful to clarify precisely how we characterise a 'meeting'. In a GSS context, the communication between individual meeting members can be supported in either face-to-face or dispersed mode, with same time (synchronous) or different time (asynchronous) interaction. The word 'meeting' applies loosely to all

combinations of these contexts and therefore does not require that the meeting members actually see each other, nor that they be communicating at the same time.

A noticeable feature of the published GSS research is that it tends to involve meetings supported on a one-off basis, with little attempt to measure changes to the meeting process on a longitudinal basis. Furthermore, while field studies have involved business, professional or political groups, the accounts of these studies as published in the literature seldom indicate why it was decided that a GSS would be suitable as a means of improving a group's productivity. Indeed, the concept of measuring meeting processes with a view to observing how they improve or deteriorate over time with the continued use of a GSS is not one that has been addressed in the literature.

We believe that it is implausible to assume that GSS will help all meetings no matter what their characteristics. We also believe that in the real world, meetings are seldom one-off affairs. More likely, they will occur on a more or less regular basis with a more or less regular membership, while discussing issues that may themselves extend over a series of meetings. Thus, it is necessary to attempt to measure these extended meetings and their processes in order to be able to ascertain how useful a GSS actually is to a meeting. In this research we attempt to redress the situation by examining business and professional groups involved in tasks that involve the generation, discussion and evaluation of ideas and potential solutions to problems over a period of time.

An additional feature of GSS research is that much of it has been undertaken in North America, although prominent exceptions to this include work undertaken in Australia, The Netherlands and Singapore. The work described here was entirely undertaken within the British Dependent Territory of Hong Kong and the Hong Kong Special Administrative Region of the People's Republic of China between April 1993 and September 1997. The significance of this geographical and cultural environment is explained and discussed in greater detail in later chapters.

Our research question, thus, is as follows:

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[1] The term GSS (Group Support Systems) has been used since 1989, but developed from the earlier GDSS (Group Decision Support Systems). GSS is used throughout this thesis, except in citations where GDSS was originally used. The two terms should be regarded as interchangeable in meaning.

- How should we apply GSS so as to improve meeting processes in business and professional environments in Hong Kong?

In order to answer this question, we employ an action research framework to facilitate the collection and analysis of data that will reveal how meeting processes operate and so how a GSS might improve them. The rationale behind this choice of research methodology is described in greater detail in Chapter Three. Although it is theoretically possible to measure the quality of group decision outcomes, generally speaking it is true that objective determinants of meeting outcome quality and effectiveness are not readily available. Indeed, it has been argued that it is very difficult to link decision processes with decision outcomes except in the most strictly controlled of social experiments (Rohrbaugh, 1987). Therefore, we choose to measure participant perceptions of meeting processes and infer the successful (or otherwise) application of the GSS from this data, collected over time. In order to collect data about meeting processes, we need:

- to develop an instrument (or instruments) that can be used to measure group meeting processes and identify process-related problems;
- to observe how a GSS can mediate identified processes;
- to measure improvements/deteriorations in group meeting processes when a GSS is used on a longitudinal basis.

1.2 Thesis Layout

The following paragraphs describe the layout of the thesis on a chapter by chapter basis.

Chapter One - Introduction

In Chapter One, we describe: the background to and rationale for the study; the research question and objectives; the operational context of the study; and the layout and content of chapters.

Chapter Two - Literature Review

In Chapter Two, we describe the key features of a GSS (specifically the product we employ in this research), and the background to GSS research. We then summarise previous empirical research conducted in laboratory experiments, field studies and other situations such as case studies. Following this 'technical' side, we examine the

socio-psychological foundations of group dynamics and hence the group processes that occur in group interactions. Attention is also paid to the cultural factors present in the Hong Kong environment.

Chapter Three - Methodology

In Chapter Three, a detailed review of various research philosophies is undertaken and the choice of the action research methodology is justified. We outline our research strategy, describing which tools we use and for what purposes, as well as their strengths and weaknesses. The research framework and instrument are introduced, followed by the software we employ in this research. Finally we describe in detail the proposed methodology of the research operationalisation.

Chapter Four - Research Framework and Instrument

In this chapter we draw upon the literature presented earlier, as well as additional materials, so as to develop a research framework. This performs the function of identifying where our research sits in a broader scheme. From this framework and the literature reviewed, we develop and validate our research instrument. This instrument will be used in each of the four case studies that follow.

Chapter Five - Case 1 - Resource Planning Task Force

Our first case deals with a task force at the City University of Hong Kong which has the remit of producing strategic proposals for resource planning over the next five years at the University. This chapter covers description of the case, application of the instrument to the meetings that took place, analysis and discussion of the data collected from the task group's meetings.

Chapter Six - Case 2 - Faculty Retreat Planning Committee

In this case, a faculty level committee at the City University of Hong Kong was given the task of planning the annual faculty retreat, a 24-hour discussion event held outside the University. The committee had to plan all elements of the retreat and it employed the GSS to assist in this process.

Chapter Seven - Case 3 - Royal Hong Kong Police Force[2]

The Royal Hong Kong Police Force runs a number of training programmes for its officers. One of these programmes, the Junior Command Course (JCC) used the GSS on a regular basis over a period of several months as part of a management

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[2] At the time when the case was conducted (November 1996-May, 1997), the Royal Hong Kong Police Force was the official name of the organisation. Since July 1st, 1997, the name has changed to

techniques course. Police officers used the GSS to solve quasi-real-life problems. This case was unique in that the membership of the groups solving the tasks changed from meeting to meeting, and the process owner also changed mid-way through the case.

Chapter Eight - Case 4 - Stable Loan[3]

Stable Loan is a major professional accounting practice in Hong Kong. In this case we describe how a team comprising managers from different functional areas of the firm was organised by the Chief Information Officer so as to participate in the reengineering of the process whereby the firm billed its customers, as well as in the development of a methodology for process reviews. Over the course of twelve weeks, the GSS was used for various idea generation and discussion activities, culminating in the production of a set of documents.

Chapter Nine - Analysis and Discussion

In Chapter Nine, we review the action research methodology as it has been used in the four cases, paying particular attention to its operationalisation, the data collection methods and the role of the researcher. We then review the research framework developed in Chapter Four and develop a new, revised framework that is informed by the cases we have conducted.

Chapter Ten: Future Research, Practice and Conclusions

In Chapter Ten, we first discuss future research and practice in the area of action research supported by GSS. This discussion is followed by the conclusions, where we discuss what we have accomplished in this research, judge the suitability of action research in the contexts within which we have been operating and provide closing comments.

The thesis closes with references and appendices.

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reflect the change in Hong Kong's sovereignty and the organisation is now referred to as "The Hong Kong Police Force".

[3] Stable Loan is a pseudonym. See Chapter Eight for details.