Counterfactual thinking in response to hypothetical breast cancer scenarios: a pilot study

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Abstract
This paper examined women’s counterfactual thoughts in response to hypothetical scenarios about early versus late breast cancer diagnoses. Women aged 50 and over (N=29) read hypothetical scenarios about the experience of fictitious women of mammography screening age and completed counterfactual statements from the protagonist’s perspective. In two scenarios, the protagonist failed to attend mammography screening regularly and was diagnosed with advanced breast cancer; the third scenario depicted a woman who had mammograms biennially and received an early-stage breast cancer diagnosis. Consistent with past literature on counterfactual thinking, participants generated exclusively upward counterfactuals from the two late-diagnosis scenarios, and predominantly downward counterfactuals from the early-diagnosis scenario. Furthermore, participants primarily focussed on what the protagonist could personally have done differently to lead to a different outcome. Hence health communication messages that prompt women to think counterfactually may encourage them to adopt greater personal responsibility toward routine mammography screening.

Keywords
Counterfactual, thinking, response, hypothetical, breast, cancer, scenarios, pilot, study

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A Research Framework in Banking Studies: "Researching and Writing Articles a Researcher's Odyssey"

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ABSTRACT

A research framework is an important feature of any academic research since it provides a researcher with an avenue of filtering his or her data to tell a particular story. Many studies in banking have been researched from data which was filtered through a mainstream, positivist or scientific approach and therefore these studies have not taken into account the social, economic, political and historical factors which are an important component of any academic research. The aim of this research paper is to bring out the importance of a research framework within case studies and the process the researcher undertakes, in his or her journey to complete the researcher’s odyssey.

INTRODUCTION

Banking is considered to be a product of its social environment. The overall interdependency of banking operations and their environment results in change, which is brought about by a process of mutual adaptation. To capture the totality in a research study, there is a need to see the inter-connection of social factors (Blumer, 1978; Funnell, 1998; Hines, 1988). It is maintained in this paper that the philosophical assumptions that underlie mainstream research can be questioned as to their ability to capture interactions with social environments. For example, by exposing the philosophical assumptions of scientific or mainstream approaches and seeking their implications for what understanding they can bring to real world situations shows us a narrow-interpretation of the consequences of banking social reforms. Not only does such understanding have the potential to improve people’s welfare through making visible the inadequacies of mainstream investigations, it also highlights the issue of “how little we know about the actual functioning of accounting (banking) systems in organizations” (Hopwood 1979, p145). In the past decade banking research has used a mainstream, positivist or hypothetico-deductive approach and this has led to an emphasis on cause and effect relationships between banking and the environment in which it operates.

Using a positivist research paradigm raises the question can such research bring out or capture the social and political dimensions of banking? It is argued social and political dimensions have not been sufficiently explained by any banking literature using positivist approaches, which have dominated banking research (Koch & MacDonald, 2003; Moore et al., 1997; Saunders, 2001; Rose, 2002). The purpose of this paper is to highlight the lack of banking research from alternate approaches. It also seeks to describe the problems researchers face from undertaking an interpretive research study in a banking area and to promote the richness of alternative research. It will be shown in this paper that environmental demands require changes in how banking theory and practice are investigated and how new understandings from these changes in ways of investigating ultimately can meet the demands of the banking environment.

Alternative approaches uniquely acknowledge beyond a technical understanding the needs, desires and machinations of humans who engage with banking organizations, and the impact of this on banking practice. There is a need by humans to recognize themselves as members of a community, which is sustained by a set of norms and values. An alternative framework provides a researcher with guidance to conduct his or her research endeavors in a way that is receptive to such norms and values.

A RESEARCH FRAMEWORK: ‘A RESEARCHER’S JOURNEY BEGINS’

Alternative frameworks proposed for use in banking studies reflect the model of Burrell and Morgan (1979), who describe four distinct paradigms: the radical humanist, the radical structuralist, the interpretive and the functionalist. These are distinctions based on ontological, epistemological, human nature and methodological assumptions about social sciences. The Burrell and Morgan (1979) framework forms a map that can be used to find one’s way through developing banking research that is multi-disciplinary in nature. It may point the way towards new areas of investigation and discovery of previously uncharted territories in banking development.
Advocating for alternative research frameworks in banking that are explicit in their ontological and epistemological stances, address the criticism of Chua (1986) that practically oriented subjects such as finance (and by implication banking) have often embraced theories from other areas such as philosophy, science, law or economics with little concern for their own discipline’s philosophical underpinnings, because they do not make these assumptions explicit. There is a need for research in banking studies to document an awareness of assumptions and the limitations of their research methods. The assumptions intrinsic in banking “facts” are taken for granted and not recognized by practitioners and therefore their impacts are not fully assessed (Rose 2002, Koch and MacDonald 2003, Saundis 2001). Alternative frameworks provide a mechanism to link inter-organizational and social conflict within an environment (Gaffikin, 1988; Laughlin, 1991; Laughlin & Lowe, 1990; Burchell & Hopwood, 1985).

THE RESEARCHER’S ABILITY TO CAPTURE ‘CASE STUDY REALITY’

The predominant myopic view of research in banking considers quantitative techniques as all that is available as a range of research styles. This is questioned by Tomkins and Groves (1983, p.361) who argue “at least it often seems content to adopt one single stereotype of research style”. The results are deficient, because these methods exclude or pre-frame social factors, making the results of such research questionable. Such quantitative techniques view reality to be an objective phenomenon, but this paper argues that there is a need to research the inter-subjective human component attached to banking, because banking practice in its various contexts interprets and influences the social and societal factors in its respective environments.

However, it is acknowledged that it is a difficult task to analyze the inter-subjective constructions of reality. Different philosophical assumptions (ontological, epistemological and methodological) have implications as to how inter-subjective knowledge is understood by a researcher. The research methodology and methods must be appropriate to the knowledge being sought. Furthermore, there is a relationship between the researcher and the research that has a duality of structure and is dialectic in nature.

The ability of research in banking practice to include social, economic and political factors within an organizational context may be difficult because of the challenge of incorporating subjective value judgments and their social consequences, which are traditionally overlooked by hypothetico-deductive research methods. Such hypothetico-deductive methods reduce banking research to a link between explanation, prediction and technical control, a form of laboratory-based testing of banking without including the social environment (Abdul-Khanlik & Ajinkya, 1979). Socially sensitive research gives an understanding of the implications of power and knowledge relationships that are normally incurred. Alternative approaches if used in a banking site can base enquiries on both ‘exploratory’ and ‘inspection’ techniques of research (Tomkins and Groves, 1983, p.363), thus revealing the social contexts of banking.

Such alternative techniques also have the advantage of acknowledging the impact of the researcher’s subjective interpretation of the perceived reality. It juxtaposes the subject and object dimensions of the study. It is important to acknowledge the role of the researcher because in relying on their senses, they bring differing interpretations and understandings, creating value-laden (Gaffikin 1988) understandings of the research site. A way of seeing is also away of not seeing (Hines 1988). For example, the ‘duck-rabbit’ of Ludwig Wittgenstein (1958) and Trigg (1985), can be seen as either a duck or a rabbit, and furthermore the beak of a duck can be seen in the same lines and also be interpreted as the ears of a rabbit. The picture provides a mirror of an observer’s assumed reality. Similarly, for a person in a desert, the reality of water to the observer is really a mirage in the burning sands. Considering these analogies’ implications for banking research, the researcher can interpret partly what they ‘want’ to find and there may be more than one unequivocal interpretation of findings, based on what underlying assumptions are made. Just as an artist’s painting tries to portray reality on a canvas according to his or her inner thoughts and experiences (Morgan 1988, 1990), the same implications are relevant for those developing research methods in the banking discipline. With respect to alternative research techniques in the banking discipline, just as the longer someone looks into a mirror they trust the image as a representation of an objective reality, the researcher’s analysis of reality comes to be seen as a full rather than a partial phenomenon. The consequence of this is banking practice is made to be both recognized and problematic. This research can be seen as a journey which the researcher undertakes, and reality portrayed by the research is transposed and communicated by the researcher within their chosen framework.
USING A RESEARCH MAP FOR GUIDANCE

To demonstrate the possibility of new contributions towards the banking area by alternative methods applied to case study research, the example of a development bank in Fiji is used. This case study uses a Foucauldian theoretical framework as a map for examining historical interpretations of events influencing a Fijian development banking. The Foucauldian theoretical framework incorporates concepts of archaeology and genealogy, which are seen as part of a social construction of the present reality of development banking history within the Fijian context. The novel strength of this approach is that it allows the researcher to describe and critique the power plays and knowledge gained through using power relationships that are intertwined in the research site. While a number of research studies have emerged which incorporate an historical emphasis in relation to accounting, this case demonstrates that these ideas also apply to the banking discipline. The Foucauldian historical genealogy approach is chosen because it acknowledges a better portrayal of social reality, both in its analysis and its interpretation.

Case studies of organizations (in this particular case a banking organization) are not uniform in approach. There are a number of other works by various social theorists that have also incorporated various social research methods in a case study approach, for example those based on the theories of Marx, Habermas, Giddens and Latour. Each approach has its own ontological commitment and its own strength of contribution, and its own limitations. For example a Foucauldian theorist would question the degree to which these mentioned theorists in using their respective lenses bring out discursive formations from a power and knowledge lens. However, a Foucauldian researcher is aware of power and knowledge discourses in a research site as distinctive contributions from the Foucauldian framework. Case study research has been challenged by Humphrey and Scapens (1996, p.22) in relation to the "intricacies or diversities" where case studies have been undertaken to fit or match particular social theories. In choosing a theoretical map for guidance, the researcher must be aware of these pitfalls and be careful to avoid them. The data collection techniques play an important part in the validity of the research (Morgan and Smircich 1980, Tomkins and Groves 1983, and Triggs 1985).

THE RESEARCHER'S JOURNEY INTO THE UNKNOWN

In doing a case study in a banking site, any field research requires that the researcher have genuine access to the site, with in-depth contact with the organizational participants. This contact includes interviews and direct observations of activities. It is this contact which is the primary source of vital research data. The focus of the research is observing real tasks and processes. Such organizational life cannot be artificially created or described via a third party to the researcher. The implication of this is that the research design cannot be totally structured, but must be open ended and evolve though making various field observations. This will allow the importance of the social, economic and political factors to be highlighted within an institutional context (Blumer, 1978, Cohen, 1968, Giddens, 1979, Pratt, 1992, Ury, 1990). The consequence of this is that the overall presentation of the data will be relatively detailed descriptions of the bank's contexts and practices, and include secondary sources of written texts such as the banking newsletters and similar. Such activity necessitates the researcher being part of the research site, in order to gain an in depth and intensive understanding of the sociological phenomenon (Hines 1988).

For authentic themes and analysis of banking case study research to be drawn, it is important that the researcher's choice of subject matter is sufficient to permit such an in-depth analysis, acknowledging that such access may be problematic. Original themes must emerge from the research investigation process if the uniqueness of the site is engaged. In the example used in this paper, a development bank in Fiji, the research design was premised from a Foucauldian theoretical map which gave guidance to the research design. Apart from observations of the site, questionnaires which had incorporated into them cultural aspects were regarded as part of the sequence of inquiry, and led to another form of observation from within the social context. The process of the bank developing internal goals consistent with the objectives of the Government of Fiji was observed. Using a Foucauldian lens, an interpretation could be made with respect to the context in that particular time frame politically and economically. Analysis using concepts of power within the organizational context revealed unique contributions to understanding the bank's profitability and growth. The use of a Foucauldian perspective made visible power as an important element in relation to the organization (Foucault, 1972, 1977).

In translating a theoretical map into field methods of enquiry, methodological approaches play a very dominant role in the ultimate analysis. A social constructivist view or a hermeneutical approach to organizational reality is implied. The researcher is overtly in the field and has to be aware of what is taking place around him or her. In the exemplar in this paper of a development bank in Fiji, while conducting field interviews with a client, the

researcher was able to take into account the effects of drought that were affecting the sugar cane farmers and the implications of this drought on their repayments to the bank. The acquisition of knowledge, therefore, is seen as the interpretation of social activity that includes the individual's personal beliefs and expectations with regard to the environment in which he or she operates. The researcher therefore has to be aware that the acquiring of knowledge for a case study requires a strong understanding of the subjectivities incorporated in the observations that are the platform for the researcher to build upon. Such incorporations are the strength of interpretive approaches and the limitation of functionalist approaches to research.

THE RESEARCH JOURNEY CONTINUES: 'DATA COLLECTION'

Banking research needs to use the qualitative methods of data collection available (Tomkins and Groves 1983, Morgan and Smircich 1980). This is consistent with Hines (1988) who called for multiple understandings of an organization. Qualitative data is needed for the overall interpretation of a case study. Qualitative methods have been described as "...an umbrella applied to a number of interpretive techniques describing, translating and otherwise inferring the meanings of events or occurring phenomena in the social world..." (Covalski and Dirsmit 1990, p.543). Therefore, in doing field work there is a large amount of subjective involvement right down to the tone of language and body language used as well as the actual words chosen by both the interviewer and interviewee in understanding the whole social context. The researcher has to overcome unforeseen obstacles and use discretion to understand the type and nature of institutionalized rules that govern the research site, and how these rules are constructed and modified over time. In addition, motives behind such changes need to be understood, that is not just what is happening, but why. These understandings are important because institutionalized social norms exert influence and are used by individuals to attribute meaning to particular actions with organizations. Researchers from a positive standpoint, however, argue that the use of qualitative methods is merely supplementary to quantitative methods allowing the researcher to simultaneously triangulate methodologically on a phenomenon of interest. However, from an interpretive viewpoint, this use of qualitative data denies multiple valid interpretations of a site by individuals. Interpretive research applications differ because they capture the social construction of a subjective reality.

The practical methods of this argument are shown in the following description of the data collection for the study of the development bank in Fiji. Data collection was conducted in the following ways. Firstly, through structured, semi-structured and informal interviews with head office, regional, branch and assistant divisional lending managers, senior and junior loans officers and audit and accounting personnel (including the audit and accounting managers), of the bank. Secondly, by using documentary and archival materials and finally, from the researcher a personal involvement, as a former lending officer in the lending process within the bank. The process of inquiry therefore, can be seen as a very comprehensive approach that has incorporated the subjective elements in the social contexts through the tools of both the Foucauldian methodology and other research methods employed by the researcher. The societal inquiry, based on a Foucauldian perspective, includes elements of exploration and inspection in order to understand fully the complex human behaviour in a large organisation such as the development bank. The methods employed, which incorporated historical and documentary analysis, as well as interviews with staff at different levels from within the bank and others, were involved either internally or externally within the bank in some way. There were non-participative or participative (ethnographic research i.e. being part of or involved in) parties in the overall organisational process. For example, the researcher spent time in the field to understand, at grass root's level, the intensive work program of people within their particular environment. Research methods as described by Ferreira and Merchant (1992), Geertz (1973), Van Maanen (1990) and Hammersley (1992) were studied, and techniques on how to capture a reality through the interview process were explored by reference to Fontana and Frey (1994) and Yin (1984). The researcher was able to appreciate the bank's environment in which it operates. These were interpreted through various stages by observations of the reality.

Confidentiality plays a major role in any organisation's research and the development bank was no exception, the researcher was asked to sign a declaration of secrecy. It can be seen, therefore, that to undertake research in any organisation the confidentiality of the organisation has to be respected, as the integrity of the data is dependent upon the trust of the participants. This is irrespective of the different sociological viewpoints used, for example, Foucault or Habermas. If this research used a positivist perspective then the overall analysis in relation to the interpretation of the bank's staff social behaviour would not be possible. The positivist position tends to reduce social behaviour to merely formal hypothesis testing, where the general structure is dependent on certain variables. There is a general causality that seeks an explanation for the interpretation of the observable facts, that is, a direct cause and outcome relationship that exists amongst the variables. Contrastingly from a non-positivist position, as a
means of synchronising the several different modes of the research investigation, a triangulation method is adopted. This method is preferred since the researcher is able to compare different answers given to him on the same point by different interviewees in different positions of power and knowledge, and is therefore able to link, verify and contrast the different views expressed by examining documentary evidence. The researcher was also able to confirm different types of information from several sources both internally and externally to the bank. The researcher has to constantly review his or her interview techniques, as this is an important element of any research journey.

THE IMPORTANCE OF INTERVIEW: 'A CASE STUDY IMPLICATION'

The importance of the interview cannot be underestimated. The interviewer should be aware of the importance of the respondents' need for reflexiveness and self-consciousness. Firstly, the interview brings out the paradoxes within the presence of an interpersonal relationship in which individuals feel it is important that they accurately interpret what sort of message others are communicating so that they may respond appropriately. Secondly, there is the situation where individuals are interacting with others who are communicating two orders of messages. One is often literal and the other metaphorical and one of these overcomes the other. Finally, there is the situation where individuals are unable to comment on the message being expressed or communicated because they may be doubtful about which order of message they are required to give an answer to as a response. These are important points a researcher needs to consider when conducting an interview, for example, Fontana and Frey (1994) and Yin (1984).

Research questions are traditionally dominated by the use of questionnaires and structured interviews. The resultant data are often analysed by complex statistical techniques to establish relationships. The problem with this method is that little cognisance has been paid to how the selective perception of the researcher is possibly biased. That is, there is an inherent bias in what questions are selected by the researcher to ask. The questions do not purely emerge from the field, but are filtered by the researcher. This is problematic because scientific method is adapted for the study of social behaviour, but pure scientific method is hard to achieve in social studies. The researcher has to be aware that he or she is dealing with human interactions. This cannot be depicted through some scientific modelling; even the art of predicting human outcome is questionable and context dependent. It is important therefore to use other techniques, such as actually visiting the field sites to appreciate the environment and to see it at first hand within its overall social context. The problem becomes one of explaining a commonly held view of the real world without verifying the social phenomena. Research questions should be designed specifically to capture the research area for the case study. Therefore, in its design, the questions needed to provide "...an action plan for getting from here to there..." or as a particular "blue print" (Yin, 1984, p.28-29). In conducting research one question provided a platform for a range of questions to be asked of the interviewee. The interviews were normally open-ended or semi-structured to capture the overall social factors which were incorporated into the picture (reality) of the organisation where the "...interview protocols were used, but the protocols were never allowed to interfere with the ideas, insights or problems" (Bruns, 1987, p.101). The researcher did not use the participant and observation technique of interviewing because it was felt that the interviewee would be confined within a particular boundary. The answer given in that particular context may not incorporate the entire social and organisational culture.

The participant and observation approach was rejected as problematic because it may lead to questions in relation to the overall credibility of the research project. Firstly, answers to questions that the researcher may be given may have restricted access placed upon them. Second interview times given may be more suited to either the interviewer or the interviewee and so impacting on the nature of the interview that the researcher may be tempted to assume a position or an advocacy role contrary to the interests of acknowledged scientific practices. Third, the participant and observer may be unconsciously using a commonly known social phenomenon and, therefore, become a supporter of the group or organisation being studied. If such support did not already exist or the participant role simply required too much attention, relative to the observer role, then the "...participant-observer may not have sufficient time to take notes or to raise questions about events from different perspectives, as a good observer might" (Yin, 1984, p.94). Thus, in this case an ethnographic research technique was used because of the researcher's personal interest in the bank. The primary concern of using an ethnographic research technique can be linked with the observations, interpretations, multiplicity of readings and contact with the personnel (clients), a period of time spent within the organisation itself, the conducting of interviews and analysing the huge amount of archival (documentary) information that is part of the organisation. The researcher, therefore, had to take into account the wider environmental factors that influence the management of a large organisation such as the development bank. The overall understanding of others' actions or conduct is obtained through a process of
interpretation or typification (Schutz, 1962). There is some doubt whether methodologies based on experimental designs and statistical surveys that treat the social world as objective and measurable, are suitable. These methodologies are not consistent with the philosophical and theoretical underpinnings of such an approach.

The interview plays a very crucial role but unless the interview questions are semi-structured the researcher will not be able to compare and contrast the different interpretations from various respondents. The main data collection methods of the interview schedules need to be constructed to take into account both the methodological choice and a clear understanding of the organisation. In our example in this paper, the main objective of the study was to understand the development bank and its operation role within the Fijian banking system. Interview questions were targeted to the persons who were best able to give a knowledgeable response in relation to the subject matter, for example, in the development bank’s case, most of the finance and accounting questions were asked by the researcher of the finance manager. The answers were crosschecked in two ways. Firstly, through documentary evidence in the form of accounting reports, policy and procedure manuals and, secondly, the same questions were then posed to the audit manager who also provided answers that highlighted the potential problems that were experienced in the accounting department.

The researcher was then able to compare the two answers to the same question. Another important issue that a researcher encounters with the delivery of the interview questions is to pay close attention to the answers given by the respondents. The researcher must listen carefully, observe, sense and assimilate large amounts of new information without bias. The researcher has also to be aware of the potential mood swings of the interviewee, and be able to capture any important messages that are given unconsciously. The researcher used a cassette tape recorder where possible, as a back up to the interviewing technique, so that some of the recordings could be transcribed into the interview schedules for further use later on in the research study. All interviews were transcribed as soon as practical after the interviews. Background information about the organisation under examination is also important when constructing the interviewing schedules. This includes both those factors that influence the organisations (internally and externally), and also how the organisation influences the environment in which it operates. At the end of the interviews the researcher transcribed all of the interviewees’ answers. The researcher also needed to look for any avenues that he or she would be able to explore in the next round of interviews. Finally, the interview answers have to be compared with the written documentary evidence. All of these procedures need to be synchronised. The ethnographic technique, through the process of triangulation, assisted the researcher in capturing the reality, as it exists, within the development-banking framework, in relation to the development bank. The researcher also has to be aware of some problems that they may encounter while conducting a research case study.

**CASE STUDY: ‘RESEARCH PROBLEMS’**

Potential problems in a case study research of this kind may arise from gaining access to key organisations and interviewees. Small considerations such as provision of sufficient stationery while in the field and a private area for writing notes made research in the field free from petty problems. It is also necessary to make a clear schedule of the data collection activities that are expected to be completed within specified periods and to provide for unanticipated events, including changes to the availability of interviewees. The researcher through the careful planning of the research project however overcame these problems. Solutions were worked out for anticipated problems and a comprehensive contingency plan was put in place. Branches are scattered on the two main islands of Fiji and this sometimes made field visits impractical due to their remoteness. This problem was overcome through the use of telephone interviews. The researcher was also aware of the time factor when conducting interviews with the personnel at the bank. Interviews had to fit the availability of the various interviewees. Similarly unexpected problems occurred with which the interviewees had to deal and these interviews were continued at a later date. The questions, in most cases, were discussed with interviewees before the interview. This helped the researcher to remain in focus while conducting the particular interviews.

**CONCLUSIONS**

In using a subjective interpretation of ‘reality’, the research fits into what Burrell and Morgan’s (1979) sociological framework characterises as research within the interpretive paradigm. Traditionally, both in the accounting and/or banking disciplines, research has been undertaken from a viewpoint that has been termed mainstream, positivist or a scientific approach and has failed to take into account the social, political and human factors which shape the phenomena studied. In doing so, the actual validity (outcome) of such research can only be
questioned. To bring out and to appreciate the importance of the social factors, especially for a research case study in development banking operations, the work of Foucault provided the researcher with a clearer view of actually evaluating of data. This enabled the banking analysis and potential outcomes to be interpreted more fruitfully. The researcher’s odyssey can now be captured in the article.

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