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Grounded Theory Applications in Reviewing Knowledge Management Literature

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ABSTRACT

Literature reviews are complex, time-consuming undertakings. Most research methodologies are deductive and require the researcher to commence with a review to inform the study and formulate the research question. On the other hand the grounded theory method is inductive, ending with a theory rather than beginning with a hypothesis, and literature in these studies is typically used as a comparator for the emerging theory. This paper proposes that a theory of contemporary thought in one particular subject, knowledge management, may be developed using a grounded theory method of reviewing its literature.

Keywords: grounded theory, theory generation, literature review, knowledge management

1. INTRODUCTION

Knowledge management has experienced prodigious growth, particularly in the last ten years (Wilson, 2002). This, coupled with overly optimistic literature (Storey and Barnett, 2000), considerable hype (Malhotra, 2005) and poor performance (Malhotra, 2005; Marr and Spender, 2004; Prusak, 2000), could reinforce suggestions that knowledge management is yet another fad (Malhotra, 2005; Coulson-Thomas, 2004; Westelius, 2004; Wilson, 2002). Investigation into the lifecycle of fads does little to dispel concerns about the future of the discipline, with one study concluding that continued growth of knowledge management may require more maturity and a 'clearer, easier understood concept' (Ponzi and Koenig, 2002).

Lack of maturity may similarly be ascribed to a number of factors, not the least of which being the short history of the discipline providing insufficient time for coherence to develop. In analysing the history of science, Kuhn (1962) ascertained that there is a sociological process at work that evolves science as it is believed and practiced, and which is distinct from the truths and developments that underlie it. Kuhn saw scientific progress or 'scientific revolution' occurring in three phases; pre-scientific, normal and then revolutionary. The pre-scientific phase is a state where there is a predominance of incompatible and incomplete theories, there is little consensus on methods and terminology, and there is little coherent understanding of how to take the research forward. One theory will grow in acceptance until it becomes dominant and provides the foundation for a paradigm, at which stage the normal science phase is reached. As knowledge management demonstrates pre-scientific phase characteristics, it will be suggested that research in this area should acknowledge and respond to the situation in order to evolve.

Lack of clarity is evidenced by the lack of consensus amongst experts as to what constitutes knowledge management (Patriotta, 2004; Wilson, 2002). Reasons for this may be entrenched in more fundamental problems, and it may be submitted that there may be an as-yet undiscovered fundamental theory that ties the contradictory theories together. To paraphrase Leonard and McAdam (2001); "is there a clear and coherent philosophy underlying knowledge management and/or knowledge management success/performance?"

Two courses of action or enquiry may be proposed to improve knowledge management maturity and clarity. First, researchers should decide what outcomes their research should have on subject knowledge; breaking new ground or developing the paradigm. Evolving science to the next phase could better be achieved through seeking models that explain reality and improve consensus rather than contributing to the generally incoherent state. Second, under conditions of uncertainty researchers would be advised to work with an open mind, take nothing for granted and question everything. Research should embrace the large number of factors involved in knowledge management (Wong and Aspinwall, 2005) or even realise they are symptomatic of more fundamental issues and a cue to re-examine the axioms underlying currently accepted theory.

Finding a coherent paradigm in knowledge management may not be easy since there is a dearth of literature comparing contemporary theory, as a search of academic papers available online shows. Some conceptual frameworks have been identified (Nifco, 2005; Wilson, 2002), as have theoretical backgrounds (Land et al., 2004), culturally based styles (Zhu, 2004), knowledge based organisation approaches (Kakabadse et al. 2003) and various approaches to KM practice (Sparrow, 2005). Even less literature has been found that attempts to constitute a single model from background theory. In a search of 711 papers written about knowledge management, only one (Diakoulakis et al., 2004) has attempted to do this. In the absence of coherence or a framework, a novice researcher of knowledge management is therefore advised to recognise and consider the breadth of the field before forming an opinion.

Working with an open mind requires the researcher to consider issues of uncertainty and inconsistency, and select the logic of enquiry accordingly. Logic based on laws, models and rules is termed deductive, whereas conclusions that are derived from a set of observations are known as inductive (Trochim, 2002). Most researchers commence with a literature review in an attempt to understand and consolidate what has been published, then formulate an opinion, research question or hypothesis to initiate research. This approach would tend to build on previous research and contribute to the field (Preece, 1994), and is a deductive process. However, inconsistency in knowledge management theory suggests the scope of review may have to be substantial in order to gain sufficient insight on which to base deductive logic. This suggests that the alternative, inductive logic, should be considered. An inductive approach allows theory to be developed from observation. Depending on the subject and intention of that theory, an inductive 'observation' or reading of literature may be appropriate in theory formulation. A search of online sources (ISWorld, 2006; Trochim, 2002) reveals that ethnographic, phenomenological and interpretive are amongst the methodologies that have been labelled as inductive. Comparing online descriptions of methods (ISWorld, 2006; Trochim, 2002) also reveals that the grounded theory method is inductive and is intended to result in emergent theory.

This paper therefore proposes the use of a grounded theory method to review knowledge management literature with the intention of producing a positive, or 'as-is', theory of contemporary knowledge management thought. Its broad aims are to introduce and assess a possibly novel application of the grounded theory method, and to consider its potential efficacy in resolving particular problems that may be shown to be afflicting knowledge management by producing a 'meta-theory' using grounded theory. In so doing, several objectives may also be achieved:

- To assess whether a theory about contemporary theory, or 'meta-theory', is a viable research objective.
- To assess whether theory may be derived from literature, particularly by reviewing it.
- To acquire sufficient understanding of grounded theory and literature review to enable evaluation of this technique.
- To consider whether grounded theory method applied to literature can derive useful theory.
- To consider whether literature may be used as primary data, particularly for the grounded theory method.
- To identify the theory and literature on which such a 'meta-theory' may be based.

2. THEORY AND 'META-THEORY'

A theory about knowledge management thought or theory may improve the maturity and coherence of the discipline. Theory, according to online dictionaries (TheFreeDictionary.com, Answers.com) is a "*set of statements or principles devised to explain a group of facts or phenomena*".

According to Littlejohn (1992) meta-theory is theory about theory. Within a particular context, a meta-theory may be regarded as the assumptions and 'rules' that underlie any particular perspective and by which any theory should abide (Overton, 1998), representing a top-down generalisation that may be used prescriptively to guide future work or descriptively to explain it.

Distinction should be made between descriptive and prescriptive application, as this will affect the research strategy chosen. Economics theory differentiates between positive statements, which describe how something is and without judgement, and normative statements which express judgement about how something ought to be. As this paper is concerned with describing an 'as-is' state of knowledge management theory, a positive theory is being sought. (It should be noted that the positive statement is related to but should not be confused with the philosophy of positivism, which holds that the only authentic knowledge is scientific knowledge, the goal of which is 'to describe the phenomena that we experience (Trochim, 2002)).

A positive theory may be regarded a generalisation, which may be one solution to the discordant state of knowledge management theory. Such generalisation as a meta-theory may be derived inductively from the body of contemporary

thought. The wide variety of models mentioned suggests that it is entirely plausible that more than one meta-theory may be valid, possibly competing for the title of dominant paradigm.

A normative theory may also be developed, but possibly not using an inductive technique. As a solution to the maturity of the discipline, a meta-theory could provide research with a coherent set of 'rules' to follow which would lead future work in the consistent manner needed to evolve into the scientific phase (Kuhn, 1962). It would be necessary to propose such a theory, albeit it based on an examination of contemporary theory, and then prove it, a deductive process. This is not the intention of this paper.

The quality of an inductive meta-theory will depend on its source data. The researcher should consider the following points in selecting this literature:

- Using the broad definition of theory given, it will be put forward that theory may be expressed in many forms, including models, frameworks, discussion, formulae and even description of how something is or should be. Considered opinion must however be separated from conjecture or rhetoric by weighing the argument and evidence used by the proponent to support that theory. Speculation should be prohibited from influencing the meta-theory.
- All knowledge management literature that presents positive explanation of phenomena or proposes normative theory should be considered as the scope of this investigation is to present a meta-theory of all contemporary knowledge management theory.
- Knowledge management is inextricably tied to people due to the nature of knowledge, and is largely practiced in organisations. It has a sociological component (McAdam and Reid, 2000; Wong and Aspinwall, 2005), and sociological research is predominantly qualitative in nature (Spender 2006). This would suggest that all theory, whether based on quantitative or qualitative data, might be suitable.
- In terms of how this knowledge was acquired or the basis of the theory developed, there has been considerable discussion in literature about the role of practitioners in contributing to theory, particularly in methodological literature such as about action research. Several authors suggest that practitioners are viable theorists (McNiff and Whitehead, 2006; McKay and Marshall, 2001) and contribute to the refining of theory (O'Brien, 2001). Practitioners are able to form sound opinions about their work based on their findings, and this could be regarded as contemporary theory.

Based on these arguments, academic literature should provide a comprehensive source of necessary source material. Due to the requirements of publishers, this material would typically be clear, succinct, structured, the theory made obvious and substantiated with argument or evidence. Due to the anticipated breadth and depth of the research, it may be suggested that the scope of the 'literature review' be made more manageable as follows:

- Limiting literature to journals and conference publications. These would tend to be more topical due to shorter publication delays and focus. Opinions should be clearer and more carefully considered due to word limits and stylistic conventions. They should also contain a variety of research methods and represent the opinions of a broad sample of authors. This literature will also very often cite other work which may be included if it appears it has something to add.
- Literature from consultancies and systems developers tends to be self-serving and biased in favour of particular solutions or vested interests, and should therefore be excluded.
- Books could be less rigorous in their treatment, less original and subject to longer publication delays. These should be excluded unless journals and conference publications make specific mention of them and content that may contribute to the theory.
- Papers should be selected for similarities as well as differences. As many publications as possible should be used, with as broad a geographical and thematic spread as possible, and as many relevant papers from each publication as possible.
- Online sources would ease selection and accumulation of material. This material would also be machine-searchable, aiding the identification of papers by keywords, phrases and other criteria.

3. GROUNDED THEORY

Grounded theory has been identified as a potentially suitable method for developing an emergent 'as-is' theory. Grounded theory should now be assessed to support the arguments put forward in this paper. A concise summary of the subject will be provided, along with important features, key arguments, a useful bibliography and sufficient detail to support argument.

Review of literature shows that definition of terms is essential. A grounded theory (GT) is a theory that is grounded in data, more specifically "a theory that has been generated or discovered following the principles and procedures set out initially in

the DGT by Glaser & Strauss (1967), and refined in later works by Glaser" (Smit and Bryant 2000). The grounded theory method (GTM) on the other hand is a research process that is used to arrive at a grounded theory. According to this definition then, this paper is proposing that researchers consider developing a meta-theory that is grounded in contemporary thought, and it is proposing an application or modification of the grounded theory method to do that.

A brief overview of GTM

Literature reviewed reveals grounded theory to be an iterative process. It begins with a situation that the researcher wishes to understand. The researcher does require some knowledge of the subject in order to provide orientation and direction, rather than knowledge to inform opinion. The absence of a research question is important "(the researcher) *moves in with the abstract wonderment of what is going on that is an issue and how it is handled*" (Glaser 1992, p.22). This is not to suggest that the researcher must be a novice in the subject area, as the original authors (Glaser and Strauss, 1967) were '*substantially knowledgeable and experienced' in their subject*" (Carson and Coviello, 1995), and since this would otherwise preclude experts from using the method in their chosen field. Rather, an open mind and objective treatment is implied.

The situation is examined, observations made and the situation re-examined in the context of those observations. Observations and textual records form the body of knowledge. This is iteratively read; labels, variables or codes in the form of categories, concepts and properties are extracted; similar cases and differences between them identified; and causal relationships determined. The process of applying labels is termed coding, and 'open' coding requires that labels come from the text and not be imposed from the outside.

The research gradually assembles a theory, inductively and iteratively obtained from the body of knowledge. This is done on a case-by-case basis, rather than through subject-based identification of variables that are only then researched. Comparison of cases and labels reveal similarities and differences. Codes may be related, or grouped. The causal relationships, similarities and differences lead the researcher to draw conclusions and formulate theories about what is happening. Every cycle will see the researcher test the emerging theory against new cases and categories, and compare that theory against those in the literature to try to explain or reinforce it. With discovery of further labels the theory may be refined or abandoned.

The theory may therefore be regarded as an abstraction, or generalisation, of the causal relationships found. Theories can emerge from logical assumptions or be generated from observation (Glaser and Strauss, 1967). Theories can be developed from research that is either data driven or theory driven (Dick, 2000). Grounded theory is an approach rather than a set of qualitative methods (Locke, 2001) that does not test a hypothesis, the theory emerges from the data. It is characterised by direct contact with the subject, no prior theorising, and knowledge emerging from the research process.

Various approaches

The above description of the grounded theory method is broad and based on a cursory review of literature on the subject. Researchers undertaking a more than cursory review of GTM literature will soon realise there is considerable and vocal debate about GTM, and that this will influence the research strategy.

Glaser and Strauss first proposed GTM in the 1960's, with the seminal work being published in 1967. Whilst the method has not changed substantially since then, and variants tend to be 'superficially similar' (Walker and Myrick, 2006), there was a methodological and even ideological split between the founders with the publication of subsequent literature (Strauss and Corbin, 1990; Glaser 1992). Examination of this and other literature reveals polarisation and defensive rhetoric. This is demonstrated in a paper by Cutcliffe (2005) that is overwhelmingly one sided. There are three versions of grounded theory to choose from (McCallin, 2003); the original version, and the 'Glaserian' and 'Straussian' approaches (terms coined by Stern, 1994). Proprietary claims have been made by proponents on both sides, with strong criticism of authors who have attempted to clarify or evolve the subject (Fernandez, 2004; Charmaz as per Bryant, 2003).

Researchers wishing to utilise the GTM are almost obliged to debate and choose sides (Fernandez, 2004; Smit and Bryant, 2000), rather than devote valuable resources to their research or to evolving GTM. Since a researcher's academic background and experience as well as project characteristics may predispose selection of one approach over another, an attempt will be made to identify the essential differences between the two camps and help other researchers avoid the fray by providing a tool useful in selecting and describing the most appropriate approach. The differences between Glaserian and Straussian approaches as shown in Table 1 below were identified from original texts and later literature (Walker and Myrick, 2006; Borgatti, 2005; Cutcliffe, 2005; Fernandez, 2004; Allan, 2003; Bryant, 2003; Chiovitti and Piran, 2003; Bryant, 2002; Locke, 2001; Dick, 2000; Smit and Bryant, 2000; Strauss and Corbin, 1998; Pandit, 1996; Glaser, 1992; Glaser and Strauss, 1967).

'Glaserian'	'Straussian'
Beginning with general wonderment (an empty mind)	Having a general idea of where to begin
Emerging theory, with neutral questions	Forcing the theory, with structured questions
Development of a conceptual theory	Conceptual description (description of situations)
Theoretical sensitivity (the ability to perceive variables and relationships) comes from immersion in the data	Theoretical sensitivity comes from methods and tools
The theory is grounded in the data	The theory is interpreted by an observer
The credibility of the theory, or verification, is derived from its grounding in the data	The credibility of the theory comes from the rigour of the method.
A basic social process should be identified	Basic social processes need not be identified
The researcher is passive, exhibiting disciplined restraint	The researcher is active
Data reveals the theory	Data is structured to reveal the theory
Coding is less rigorous, a constant comparison of incident to incident, with neutral questions and categories and properties evolving. Take care not to 'over-conceptualise', identify key points	Coding is more rigorous and defined by technique. The nature of making comparisons varies with the coding technique. Labels are carefully crafted at the time. Codes are derived from 'micro-analysis which consists of analysis data word-by-word'
Two coding phases or types, simple (fracture the data then conceptually group it) and substantive (open or selective, to produce categories and properties)	Three types of coding, open (identifying, naming, categorising and describing phenomena), axial (the process of relating codes to each other) and selective (choosing a core category and relating other categories to that)
Regarded by some as the only 'true' GTM	Regarded by some as a form of qualitative data analysis (QDA)

Table 1. Key differences in GTM approaches

Selection of the most appropriate approach

To determine which approach is more suited to the research proposed in this paper, each row of this table will now be considered:

- Whilst it would be naïve to expect a researcher working at a postgraduate level to enter into an investigation without an subject knowledge, researcher with some experience should be able to set aside at least some bias and consider the problem objectively. Glaser (2002) considers bias to be "just another variable and a social product". It may even benefit knowledge management research to set aside any prior constructs and begin anew.
- Allowing the theory to emerge may be important, given the complexity of the subject and incoherence of theory.
- Conceptual description of knowledge management has been undertaken, as mentioned (Land et al. 2004; Wilson, 2002). This however may not provide the meta-theory or dominant paradigm that appears to be lacking in the subject, which Glaserian conceptual theory development may deliver.
- Theoretical sensitivity does not appear to be a deciding factor, although novice researchers may prefer the processes of Straussian methods. The experienced researcher may find the flexibility of Glaser's approach easier when stepping back from the data and asking 'what is going on here?'
- It will not be possible for the researcher to interrogate or interact with the data (literature, discussed later), and prior constructs should be ignored as much as possible. Theory grounded in the data would therefore be more accurate than a researcher's interpretation.
- Given the state of confusion, it is likely that the research and results will be scrutinised carefully. This may suggest selection of the more explicit and structured method may allay others doubts about the process followed, but ultimately theory derived will be a meta-theory of contemporary thought and focus should therefore be on links to the data more than on the research process.
- Knowledge management may be regarded a sociological construct, existing as an invention of humans and society. There is a basic social process of managing knowledge, in whatever form that may take, so the selection is not predisposed to one or the other approach.
- Notwithstanding that the research will find it difficult to interact with literature as data, the arguments above about setting aside prior knowledge and acting without bias suggest the researcher should be passive.
- The breadth of the subject suggests that considerable data must be coded in order to obtain a true meta-theory. Since a meta-theory is sought, only broader concepts and relationships need be considered. There are a huge number of factors

affecting knowledge management (Wong and Aspinwall, 2005). This suggests that 'micro-analysis' may be over-kill and swamp the research in unnecessary detail.

- In terms of coding, both approaches are essentially inductive and the data considered is literature that is well written, structured, explicit and even 'pre-coded' through keywords and headings. Whilst it may be useful to define codes as one goes along, suggesting a Straussian approach, it may be equally valuable to allow definitions to evolve and not affect the assigning of codes or the emergence of new ones.

This analysis therefore suggests that the Glaserian approach would be more suitable to this research than a Straussian approach.

It is beyond the scope of this paper to describe the Glaserian method, and the description of the GTM process as provided is too superficial for the design of a methodology. Researchers wishing to adopt the Glaserian approach may adopt the methods described by Glaser (1992), or consider methods as modified or applied by other authors.

Review of this literature also gives rise to concerns for researchers new to GTM. GTM may appear to be an attractive alternative, particularly since it does not demand the formulation of research questions and does not appear particularly formal. However, it is only suited to certain forms of enquiry and deriving certain types of conclusions, the literature tends to be quite philosophical and dense and there are few clear concise step-by-step instructions such as that provided by Fernandez (2004). The method can also be tedious in application, require rigorous attention to detail and the process is not quick. Researchers seeking a quick alternative may be disappointed.

4. LITERATURE AND LITERATURE REVIEWS

This paper proposes that a grounded theory method be applied to literature to derive a meta-theory or grounded theory about contemporary knowledge management theory. This implies that it should be determined as to whether literature is suitable as data, and whether the literature review can be replaced.

Suitability of literature as GTM data

Glaser (2002) 'opens the door' to the use of literature by saying "*All is data*", that "*Much GT interviewing is passive listening*", and the researcher should be careful to allow the 'participant' to tell the story their way and suggest how it is interpreted. Other literature suggests there is scope for new methods "(GTM) *allows much latitude for ingenuity and creativity*" (McCallin, 2003); "*a general method to use on any kind or mix of data, and it is particularly useful with qualitative data*" (Glaser, 1998, p.254) and "*All data of whatever type is grist for the mill of constant comparison to develop categories and their properties*" (Glaser, 1992, p.24). Literature is typically used as a comparator in GTM research however, and this use should be explored.

Literature may be regarded as original observations and interpretations by its author. Correctly selected literature will contain the views and theories about knowledge management of many authors. The key points to be considered in debating between interviewing these authors, a process that would resemble many of the published GTM applications (Dick, 2005), and the reading of their work which is proposed here, are:

- Literature and interviews both represent discourse about a social construct.
- Both literature and interviews may be subjective, and therefore could require examination of their validity or relevance.
- Authors have had the opportunity to clearly and succinctly convey their opinion, and do it in a way that is structured, methodical and logical. During an interview on the other hand, the participant may not be able to clearly and completely express their opinion. Literature may therefore more accurately represent the true intentions of the participant (author).
- There are opportunities for miscommunication in an interview, but the interview format does allow a researcher to clarify meaning and intention.
- A reader may interpret text in a way that is different from the intention of the writer and from reality, but this is not unlike coding interview notes. Both would depend on the researcher's technique and objectivity to control interpretation.
- Readers of literature should be able to detect variation or subtlety, then eliminate it or even use it to inform their theory. On the other hand during an interview, the researcher would have the benefit of body language and other non-verbal cues to suggest a line of questioning.
- It has been determined that the researcher should adopt a passive role. This would favour a non-interactive literature review approach.

On the basis of these arguments, it appears that literature should be suitable GTM data if it is first-hand or primary evidence of the basic social process the researcher wishes a theory to emerge from.

Literature as primary data

Reviewing literature using a GTM approach suggests the use of literature as primary rather than as secondary data. Primary data is that collected by the researcher for a new study, and secondary data is collected by others and reused by the researcher. Literature is typically used as secondary data. Its use as primary data should therefore be examined to determine whether there are implications for the application proposed.

The use of literature as primary data is not unique. A brief search across related fields reveals prior applications in the field of meta-analysis (Rosenthal and DiMatteo, 2001), an area that bears resemblance to meta-theory in that it "*In statistics, a meta-analysis combines the results of several studies that address a set of related research hypotheses*" (Wikipedia, 2006). In the proposed context, it may be argued that literature is primary data since it represents the opinions of its authors, reading literature is observation in its own right, and the researcher is collecting data for a possibly new and unique purpose. For this project, the researcher would take on an etic (or outsider) role but with the advantage of the emic (insider) insights provided by the authors themselves into the situations that gave rise to their literature.

On the other hand accepting that literature is secondary data for this application need not invalidate its use. As evidence of a basic social process the researcher would have to consider that the authors may have introduced bias, and then factor this as another variable. In this case the limitations of secondary data should be considered and greater attention paid to coding and theoretical sensitivity. Limitations include it possibly having been collected for a different purpose, definitions may vary, processes and arguments may be obscured, may be outdated, and there may be validity issues. Secondary data is however cheaper to acquire, may be of high quality, can provide access to a broader sample.

Replacing the literature review

A literature review has an established role in research, and should not be discarded without due consideration.

The conventional literature review should first be examined to identify any similarity in process or intention. The phases in literature reviewing are according to Rowley and Slack (2004); scanning documents, making notes, structuring the review, writing up and bibliography preparation. The structure itself may consist of basic definitions derived from questions such as why the subject is relevant or of interest, what research has been done or not done, and a summary of the research opportunities and objectives that emerge from that. At a post-graduate level, the review should also critically evaluate and assess the literature. There is some structuring during a review according to themes as they are discovered, and the conventional research process is by nature evolutionary, building on previous work and tending to produce work that is not radical, rather viewing situations in the same way as before or building on or around previous assumptions. These may inspire the researcher to invent novelty, but it is not inherent in the process. The process can also be an iterative one, first informing the development of research questions, then informing the study and explaining findings.

Conventionally, there are several objectives in performing a literature review (O'Leary, 2005; Rowley and Slack, 2004):

- Informing the researcher and the study about a subject.
- Supporting discussion of the subject using appropriate language and correct terminology.
- Supporting the development of research questions and hypotheses.
- Facilitating validation of the research and researcher.
- Directing the research to make a contribution to an existing body of literature.
- Providing context for research.
- Contributing to a bibliography.
- Suggesting useful research methods.
- Providing a context and mechanisms for analysing and interpreting results.

It would be useful to know whether a GTM approach would achieve these objectives or would render any redundant. Considering the above list point-by-point, a GTM should result in:

- The researcher being informed about the subject and, importantly, possibly more aware of the underlying assumptions, principles and/or theory.
- Detailed awareness of the terminology, as well as any differences and the relationship to each 'case' and the meta-theory.

- Research questions and hypotheses being made redundant.
- 'Automatic' validation, since the emerging theory is grounded in the data.
- The remaining points are inherently completed, since the review is the research, the bibliography is the data, the method is being undertaken rather than still to be applied, and the analysis and interpretation is integral.

On this basis it may be concluded that the grounded theory method using literature as primary data is, *ceterus parabis* or all things remaining equal, a suitable alternative to a literature review.

5. KNOWLEDGE MANAGEMENT

It has already been suggested that knowledge management may benefit from the emergence of a grounded theory. This assertion should be considered in more depth before concluding that that GTM is suited to the research of knowledge management:

- There are examples of the use of grounded theory in knowledge management using the original GT method (Ford and Angermeier, 2004; Smith, 2004) and the Straussian approach (Nicholas, 2004; Wastell, 2001)
- There are examples of the use of GTM in fields similar or related on the basis of their sociological nature and practice, such as in information systems (Orlikowski, 1993) and organisation research (Ancona, 1990).
- It has been suggested that grounded theory is more suited to sociological applications, and knowledge management does have a strong sociological nature (McAdam and Reid, 2000; Wong and Aspinwall, 2005).
- If knowledge management is regarded broadly as any planned, formal or recognised activities, processes or management involved in the use of knowledge in organisations, then it represents a basic social process, which GTM is adept at researching.
- Knowledge management tends to resemble social construction, and therefore favouring qualitative research over quantitative research. This is supported by opinions that management research is not suited to quantitative methods (Leonard and McAdam, 2001). GTM belongs to the qualitative paradigm.
- There are many different and often contradictory definitions, opinions and theories of knowledge management. A theory that is grounded in this data would be a valid meta-theory of contemporary knowledge management thought.
- Research in management tends to be deductive, quantitative and positivist (Alvesson and Wilmott, 1996), which is inadequate given the complexity, ambiguity and dynamism of the environment and subject (Perry and Coote, 1994). This favours GTM since it is a qualitative method.

These arguments suggest that the grounded theory method is not unsuited to researching knowledge management for the purposes proposed.

6. CONCLUSIONS

This grounded theory method could benefit knowledge management by bringing coherence, maturity and improved understanding of underlying assumptions and, coupled with the feasibility of the application, demonstrates it is a viable research objective. Theory may be derived from the literature, and can emerge from it through the grounded theory method. There are several competing approaches to this method, and the 'Glaserian' approach was found to be the most suitable for this study. Literature may be used as primary data by the grounded theory method, and this use of literature should make a conventional literature review redundant. Examination of knowledge management literature found several applications of grounded theory in the field, and this, coupled with the qualitative nature of enquiry into this sociological field, suggests that use of the grounded theory method in knowledge management is not invalid.

In conclusion then, it appears from review of the literature that the application of grounded theory method to reviewing literature and deriving a meta-theory is novel and capable of producing a grounded theory about contemporary knowledge management theory.

7. RECOMMENDATIONS

This paper is intended to be used in the author's doctoral research and to encourage discussion and application amongst other researchers. Researchers may find the following recommendations useful:

- The researcher has to be aware of the various approaches and the most appropriate applications for each.
- The research must be familiar with the details of whichever approach is adopted.
- The method is more suited to researchers possessing certain personal skills (McCallin, 2003)
- It is recommended (Glaser, 2002; Dick, 2005) that the novice researcher find mentorship if possible.
- The researcher should not become entangled in the philosophy and debates at the expense of the aim of the research.
- Grounded theory is superficially and deceptively simple. The researcher should be aware that there are many subtle processes on which the quality of the emerging theory depends.
- The researcher should also be aware that coding, particularly the 'micro-analysis' of the Straussian approach, can be laborious, tedious and time consuming.
- The subject of knowledge management is vast. Wilson (2002) found more than 19 interpretations and 6 broad fields of practice. Knowledge management researcher should realise that reviewing a representative sample of knowledge management literature could take considerable time.
- The body of potential knowledge management literature is vast. A comprehensive search through online journals and publications recovered 721 papers and articles with a primary focus in knowledge management, sourced from 71 journals and conference proceedings available online, sourced from various university websites and other online sources, and covering the period 1996 to 2006.

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