Inductive theory generation: A grounded approach to business inquiry

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Abstract: Grounded theory has frequently been referred to, but infrequently applied in business research. This article addresses such a deficiency by advancing two focal aims. Firstly, it seeks to de-mystify the methodology known as grounded theory by applying this established research practice within the comparatively new context of business research. Secondly, in so doing, it integrates naturalistic examples drawn from the author’s business research, hence explicating the efficacy of grounded theory methodology in gaining deeper understanding of business bounded phenomena. It is from such a socially focused methodology that key questions of what is happening and why leads to the generation of substantive theories and underpinning knowledge.

Keywords: grounded theory methodology, qualitative, inductive, small business

1. INTRODUCTION

Developed by Barney Glaser and Anselm Strauss in the early 1960s Grounded Theory is a methodology for inductively generating theory (Paton, 1990). Glaser and Strauss' seminal work, The Discovery of Grounded Theory (1967), specifically aimed at developing social scientists' capacities for generating theory. Glaser's definition of grounded theory is,

*a general methodology of analysis linked with data collection that uses a systematically applied set of methods to generate an inductive theory about a substantive area* (Glaser, 1992, p.16).

The emphasis is the systematic approach to data collection, handling and analysis. Glaser’s and Strauss’s personal differences that emerged over the years since their joint publication (1967) saw Glaser (1992) emphasizing the necessity for the researcher to be more creative and less processual in his/her methodological approach. Strauss (Strauss and Corbin, 1990) conversely, conveyed a more linear approach to recommended methodology.

Data collection, analysis and resultant theory generation has a reciprocal relationship, in that the researcher, rather than commencing with a theory that he or she attempts to verify, commences with an area of study and allows relevant theoretical conceptual constructs to emerge from the process. Grounded theory research requires a constant interplay between the researcher and the data. Grounded theory studies use rigorous data coding procedures designed to increase the validity of data interpretation. The process requires that,

*Joint collection, coding and analysis of data is the underlying operation. The generation of theory, coupled with the notion of theory as process ... should blur and intertwine continually, from the beginning of an investigation to its end.* (Glaser and Strauss, 1967, p.43)

Grounded theory’s methodological emphasis is on the actors’ own (emic) interpretations and meanings to emerge with minimal researcher intervention (etic). Through constant comparison, coding and analysis of interview and observational data, theory that is grounded in these data emerges. What is pertinent to social research, through grounded theory, is that it seeks to approximate to the context of that being studied, that is, for example; a business, its actors, their interactions and interrelationships; thus conveying a conceptual understanding of issues that make up their naturalistic world (Van Maanen, 1979). Mintzberg also emphasizes the requirement for qualitative inquiry within organizational (naturalistic) settings:

*Measuring in real organizational terms means first of all getting out, into real organizations. Questionnaires often won't do. Nor will laboratory simulations... The qualitative research designs, on the other hand, permit the researcher to get close to the data, to know well all the individuals involved and observe and record what they do and say.* (Mintzberg, 1979, p. 586)

Whilst having its antecedents in sociology some application of grounded theory beyond sociology has been applied, if somewhat limitedly, in the areas of for example: tourism and hospitality management (Connell and Lowe, 1997); medical studies (Charmaz, 1990); psychology (Henwood and Pidgeon, 1995); and, business and organization studies. This latter broad field of academic inquiry has
seen grounded theory applied, if again limitedly, in for example: management research (Locke, 2001); innovation (Lowe, 1995), business mergers (Lowe, 1998); management action (Partington, 2000). The concluding author emphasises its limited application:

…there is little dedicated methodological guidance for builders of theories…and few exemplars of research conducted beyond the level of procedural detail. In much qualitative management research, important ontological (what counts for reality) and epistemological (how knowledge of reality may be established) issues are often either artfully avoided, taken for granted or ignored. (Partington, 2000, p. 92)

Therefore it is contended that there remains a paucity of published accounts of the application of grounded theory within the broad (multifaceted) academic field of business research. This article makes a contribution to such a deficiency.

2. GLASER OR STRAUSS?

Since their influential work of the 1960’s Glaser and Strauss departed in their views on Grounded Theory. Glaser (1992) selects an area (or organization or activity) for study and allows issues to emerge in the course of the research process. Strauss and Corbin (1990) are more specific and prefer to identify a phenomenon or issue for study. Thus Glaser’s approach to the identification and specification of the research issue to be addressed is entirely dependent upon the perceptions of actors and researcher. Strauss and Corbin permit the researcher to predetermine the general subject of enquiry before entering the research site. Glaser also prefers an analytical method that is more general in its frame of reference, while Strauss and Corbin opt for a somewhat more structured set of analytical steps. Glaser (1992) regards Strauss and Corbin’s (1990) analytical method as forcing, rather than allowing emergence of theory. In this respect, Glaser’s methodological approach relies primarily upon the constant comparison of different incidents, perceptions, relationships, and issues, with the aim of identifying inconsistencies, contradictions, gaps in data and emerging consensus on key concepts and relationships, in grounded theory we do not know, until it emerges (Glaser, 1992, p. 95). Strauss and Corbin (1990) are significantly more prescriptive in specifying the steps to be taken by a researcher in coding and analysing phenomena.

The Glaser adherent can allow for the central concept to emerge inferentially from the coding process – reflecting the key issue or problem as perceived by the actors being studied. The researcher, for example, could initially inquire in terms of a firm’s general management as an approach. Alternatively, following the Strauss and Corbin approach, the researcher could elect in advance to focus observation, interviews and archival data gathering on a particular issue such as marketing strategy. Coding is then oriented around this issue, and a central concept (or “code”) is then sought to represent the interplay of subjects’ and researcher’s perceptions of the nature and dimensions of phenomena under study.

3. GENERATING THEORY

The process of generating grounded theory involves data being systematically collected through field observations, interviews, meetings and the inspection of documentation where appropriate or possible. The researcher is often confronted with a flood of textually rich data. Coding for emerging concepts (from those data) is done by close scrutiny, with the intention of developing core categories that account for most of the variance in the data.

The aim of coding is to arrive at systematically derived core categories that become the focal concepts that contribute towards theoretical development. Theory generation occurs around one or more core categories, with evidence of properties of these categories and therefore patterns of behaviour to be found in the research phenomenon studied. Categories are coded with a view to rendering them ‘dense’ and ‘saturated’ with theoretical meaning.

3.1 THEORETICAL SENSITIVITY

Theoretical sensitivity refers to the researcher’s capacity to think about the data in theoretical terms. It requires the researcher to interact continually with the data collection and analysis, and suspending judgment on possible outcomes. During the interactive process of a grounded theory study, the researcher should be asking two formal - not preconceived – questions:

What is the chief concern or problem of the people in the substantive area, and what accounts for most of the variation in processing the problem? And secondly, what category or what property of what category does this incident indicate? One asks these two questions while constantly
comparing incident to incident, and coding and analyzing. (Glaser, 1992, p. 4)

3.2 DATA COLLECTION

There are three main categories of data in grounded theory research: field data (notes), interview data (notes, recordings, transcripts) and any existing literature and artifacts that may be useful to the research (for example, written correspondence between managers within a business, or any potentially useful ephemera). Copious notes and/or detailed tape recording transcripts need to be undertaken and to examine the data several times from a variety of perspectives in order to develop the most rigorous explanations of the phenomenon being studied.

Empirical data, as exampled for this article, depicts information that was collected from predominantly interview based research set within a small commercial firm. Data were predominantly audio taped and accompanied by hand written notations. Interviews were structured using initial informational and subsequent reflective and feeling questions (Charmaz, 1990, p. 1167). Informational questioning established chronology of the interviewee and subsequent events within that person’s historical reflection of his/her employment at the company. The overall consideration is the generation of primary data that is captured in the exact words and explanations by the actual respondents themselves with the minimal framing by the researcher.

The audio taping of each interview, whilst generating a considerable amount of data enables the grounded theory analyst to specifically focus on the words used by the respondent (hermeneutics), rather than transcripts of the researcher’s limited capacity to capture that said by the interviewee (See Example 1.)

Example 1. Fragment of an Interview Transcription.

Interviewee (25 years with the company).

…The present owner is a newcomer in the company.
I liked the last owner.
Last owner did not have a lot to say in the workshop.
He has bought into the company.
It’s now all onwards and up wards.

He brought in two supposed experts.
He spent a fortune on that which didn’t work.
Last two years have been disastrous.
There are now more overheads.
They were happier days in the past than now.
Not many people are interested in this job.
We were doing all right as we were…

3.3 CODING

Coding is the result of raising questions and giving provisional answers about categories and their relations. Creating distinctions between codes produces dimensions and sub-dimensions. The coding paradigm originally articulated by Strauss (1987) and further refined by Strauss and Corbin (1990) is applied. It represents the operations by which data are broken down, conceptualised, and put back together in new ways. (Strauss and Corbin, 1990, p. 57)

Three types of coding are proffered: open coding, axial coding and selective coding. Coding as a term conjures up notions of esotericism, whilst in actuality the researcher is labelling fragments of data through various developmental stages. The coding paradigm focuses:

…attention on the slightly different aspects of naming and comparing at different levels of conceptual perspective that span the three forms of analytic activity… (Locke, 2001, p. 64)

The transcripts’ data were predominantly coded (labelled) applying in vivo codes (Strauss, 1987, p. 33), or, researcher-constructed codes. The former extrapolates the actual words and phrases used by the respondent. The latter uses a label that best captures a description of a phenomenon as it is highlighted in the textual data.

3.3.1 OPEN CODING

Open coding involves the analysis of data. Codes form the basis for later aggregation into concepts (core codes). These are names or labels given by the researcher to events, activities, functions, relationships, contexts, influences, and outcomes. This initial coding involves the close scrutiny of the data. This requires transcripts being analysed, word for word, line-by-line and phrase-by-phrase. The aim of open coding is to begin the unrestricted
labelling of all data and to assign representational and conceptual codes to each and every incident highlighted within the data. As the process moves forward, iterative reflection of that already coded is considered with new data.

Open coding allowed similar incidents and phenomena to be compared and contrasted with each other, and where similar were correspondingly coded. This initiated the tentative process of developing conceptual categories and their properties. It needs to be remembered that it is not data themselves that develop conceptual categories and their properties, and, importantly the emergent substantive theory – it is the conceptual interpretation of data and their phenomena that creates the grounded theory. The theory is literally grounded in the data, but is not the data themselves.

As a methodological point of clarification – during the open coding stage, phenomena can be coded a number of times to emphasis various facets of an event or comment. For example, a comment by an employee from the business exampled in this article said, “I liked the last owner”. This comment alone can have can have several connotations and warrants a number of codes to consider what is not only being literally said (In Vivo), but most importantly, what is being conceptually conveyed by the respondent (Open Label Code). Therefore in this particular case, the coding stage for the above single comment was applied as in Example 2.

Example 2. Open Coding Application to the words, “I liked the last owner”.

1. I liked the last owner (In Vivo code)
2. Liked (In Vivo code)
3. Last owner (In Vivo code)
4. Historical contrasting (Open Label Code)
5. Positive employee emotion (past) (Open Label Code)
6. Negative employee emotion (present)(Open Label Code)
7. Perception of owner-manager’s personality (Open Label Code)
8. Perceptions of change in managing the business (Open Label Code)

From this short particular tract of data, and what emerges as the coding and tentative theory building develops, is that this respondent was conveying a dislike for the present owner-manager, a probable dislike of how the business was now managed (as opposed to how it was in the past) and a feeling of negativity about how the business and probably his job has changed since a new owner-manager had come to the company.

3.3.2 AXIAL CODING

Axial coding follows open coding. Once the initial open coding has been done, the researcher then regroups the data. Axial coding identifies relationships between open codes, for the purpose of developing core codes. Major (core) codes emerge as aggregates of the most closely interrelated (or overlapping) open codes for which supporting evidence is strong (Strauss, 1987; Strauss and Corbin, 1990).

Moving from the transcript of one respondent to that of another, and on towards the final transcript or piece of data, tentative relationships emerge - plus a considerable number of individual fragments of data (See Example 3.).

Example 3. Some Employees’ Emergent Axial Codes.

1. Co-worker perceptions of each other.
2. Historical contrasting between the business now and previously.
3. Managerial decisions made by the new owner.
4. Interpretive consequences of managerial decisions made.
5. Perceptions of what were required for the business.

3.3.3 SELECTIVE CODING

Selective coding requires the selection of the focal core code, that is, the central phenomenon that has emerged from the axial coding process. All other core codes derived from that axial coding process must be related in some way to this focal core code, either directly or indirectly. These codes can be classified as representing context, conditions, actions, interactions and outcomes. In this way a theoretical framework of interrelated concepts can be developed showing posited relationships between the central concept (i.e. the focal core code which represents the central phenomenon identified in response to the questions of, what is the central activity occurring here, what are the conditioning or influencing concepts, what are the observable outcomes and any intervening concepts and
variables being represented by the other conceptual codes identified (Strauss and Corbin, 1990) (See Example 4).

**Example 4. A Selective Conceptual (Coded) Category.**

‘Management Decisions and Consequences’ (see Axial Codes: 3 and 4 above)

**3.4 MEMOING**

Theoretical memos are written theoretical questions, coding summaries, and hypotheses, used to monitor and stimulate coding, and as a basis for theory integration and ultimately generation. Memos are written (e.g. on cards or computer files) continuously through the entire research process (including observation and analysis stages). They are used to reflect upon and explain meanings ascribed to codes by actors and researcher; to identify relationships between codes; to clarify, sort and extend ideas; and to record crucial quotations or phrases. They provide the foundation of phenomenon’s characteristics and depth of understanding of the properties of the focal core concept and key related concepts.

Data are interpreted and concepts developed and related by means of relational statements. The procedures extend beyond the commonly understood concept of ‘coding’ in that the iterative process requires openness to modification of early coding as the researcher moves towards substantive theory generation. Glaser (1992) makes a point of distinguishing between different types of coding in the grounded research process, and emphasizes the value of the ‘constant comparison’ method that allows categories and conceptual properties to emerge.

The core category must appear frequently in the data, suggesting that it becomes increasingly related to other categories. Interconnecting codes must not be forced to link with the core code. The core code will take longer than other core codes to become saturated with information and understandings about its nature, characteristics and relationships to other codes, as it should be connected to more codes than the others. The core code (category) can be depicted as an integrative diagram (See Example 5.).

The core code would form the basis for developing a more formal theory. The level of theory development will progress as the researcher analyses and modifies the core code. A core code should account for a substantial proportion of the variation in an event or pattern of behaviour. The conditions and outcomes in particular, are represented by other core codes identified in the course of axial and selective coding.

Grounded theory uses ‘theoretical sampling’ to sample events that are indicative of categories, their properties and dimensions, so that they can be developed and conceptually related (Strauss and Corbin, 1990). Theoretical sampling is the process of sampling events, situations, populations, and responses, making comparisons between the samples of responses, descriptions, and behaviours in inductively generating theory.

Grounded theory researching samples incidents and not individual people as such. One’s methods include:

1. Collecting data about people’s actions, inactions and interactions.
2. Analysing antecedent and consequent conditions.
3. Determining the stability of the phenomena over time.
4. Identifying any causal effects.

The selective coding stage focused on what emerged as a core (central) category. The core category represents the main theme of the research. A central category has analytical power. What gives it that power is its ability to pull the other categories together to form an explanatory whole (Strauss and Corbin, 1998, p. 146).

Having completely analysed and coded all actors’ transcripts beyond where saturation of anything new comes forth gives the research the richness that conveys the naturalistic account - it also indicates actors’ frequencies of drawing attention to incidents and feelings, the emotional weight to that conveyed.
Example 5. Integrative Diagram of Core and Related Conceptual Categories.

3.5 SAMPLING CRITERIA
At all stages the researcher will seek alternative explanations and test for confirmation/disconfirmation of the concepts developed. In order to reduce the conceptual inadequacy of a theory (Glaser, 1978; Glaser and Strauss, 1967; Strauss and Corbin, 1990), rigorous grounded theory research will sample until: no new or relevant data appear; all elements of the theoretical paradigm are covered; and relationships between categories have been validated.

In generating grounded theory, creativity is required through the processes that force the researcher to break through prior assumptions and to create new order from existing data. In essence,

much of originality or creativity is not new ideas – since most ideas are already known in some way – but new connections between conceptual ideas ... (which put) a premium on the discovery and adept use of theoretical codes, which are the connectors (Glaser, 1992, p. 29).

Creativity occurs when the researcher is called upon to name categories, identify associations between categories and their properties, and make comparisons that yield fresh insights into the data collected. The identification and illumination of conditions and consequences are indeed a process of interpretation that requires researcher sensitivity and creativity (Strauss and Corbin, 1998).

Insights can be cultivated from the perceptions of the actors being studied as well as from the researcher’s interpretation of the data. Undeniably, insights must be cultivated until the conclusion of research because they have the capacity to emerge continually from ongoing reflection upon the data, through constant comparison. Such comparison may be enhanced when insights emerging from a grounded study stand in marked contrast to other pre-existing theories.

3.6 SUBSTANTIVE THEORY GENERATION
A substantive theory emerges from the conceptual categories but is grounded in the data.

By substantive theory, we mean that developed for a substantive, or empirical, area of...inquiry (Glaser and Strauss, 1967, p.32).

By pursuing a substantive theory emergent from and grounded in the data presents the flexibility and freedom to explore a phenomenon in depth (Strauss and Corbin, 1998, p.40).

Underpinning conceptual categories to the core conceptual category, which in themselves hold underpinning conceptual properties (of which there can be many), support the emergence of a substantive theory. These emergent elements are the building blocks of theory generation. Such an activity aids in the development of further theory generation, be it
formal theory that addresses, say, related but broader lines of inquiry (for example, managing small businesses’ decisions) to grand theory (for example, managing businesses’ decisions).

Substantive and formal theories must be grounded in data. Substantive theory faithful to the empirical situation cannot, we believe, be formulated merely by applying a few ideas from an established formal theory to the substantive area. To be sure one goes out and studies an area with a particular focus, a general question, or a problem in mind. (Glaser and Strauss, 1967, p.33)

The research exampled adhered to the principles governing substantive theory generation by grounding its results in empirical data, set within a particular area of attention and continually asking the question of why things were happening in the way that they were within the business studied. From it developed an emergent substantive theory (See Example 6).

Example 6. A (Simplified) Generated Substantive Theory.

“To effect change in the (substantive) business were a function of the asymmetries of power between actors within the organization and contingent on management’s personality, knowledge and ability to make decisions appropriate to the business’ viability”.

4. MEASURES OF GOOD GROUNDED THEORY

Glaser and Strauss (1967, p. 237) provide some guidance for evaluating the empirical grounding of a grounded theory. These can be summarized as follows:

(1) Fit – does the theory fit the substantive area in which it will be used?
(2) Understandability – will non-professionals concerned with the substantive area understand the theory?
(3) Generalizability – does the theory apply to a wide range of situations in the substantive area?
(4) Control – does the theory allow the user some control over the “structure and process of daily situations as they change through time”?

In terms of credibility, validity and rigour, it should be observed that grounded theory is based on a systematic and formal process of data collection, analysis and theory generation. Inaccuracies and misleading interpretations are guarded against by various means including comparative analysis, investigation of different slices of data, and integration of theoretical concepts (Glaser and Strauss, 1967).

The main threats can be summarized as observer-caused effects on the phenomenon under study, observer bias in interpretation, limitations to data access, and the complexities and limitations of the human mind that may prevent the statements of actors being taken at face value. Strategies available to deal with these threats include the researcher spending a substantial length of time in the field, the employment of multiple data sources and observation methods, and care with respect to the researcher’s social behaviour in the field.

Yin (1994) suggests that key characteristics of rigorous case study research include comprehensive data collection and examination of alternative explanatory hypotheses or interpretations. These characteristics can clearly be delivered by a grounded theory approach. Miles and Huberman (1994) proffer cross-site qualitative data analysis methodologies includes research techniques that provide a springboard for examining data from multiple theoretical perspectives. Business research case studies can be enhanced and strengthened by combining grounded theory research principles with exhaustive data collection and analysis.

5. CONCLUSION

Theory emerging from the collection and analysis of data according to the central tenets of grounded theory methodology can indeed be grounded in the broad field of business research. Theory emerges from the researcher grappling with not only his/her own analytical perceptions, but from empathizing the ways in which respondents themselves construct their reality, their world. The emerging concepts would have been subjected to repeated coding and memoing, confirmation of observations from multiple data sources, theoretical elaboration from interpretations of these multiple sources, and continual testing for consistency across multiple observations. In this developmental process, concepts have been identified, developed, discounted, and merged in order to produce the component concepts of the emergent theory.

The distinctive advantage of grounded theory is that it commences from specific naturalistic situations, with the intent of understanding the nature and rationale of observed interactions.
and processes. Inductive theory generation is embedded in explanation of phenomenon, rather than generalisability. The explanatory power of the grounded theorist is to develop predictive ability – to explain what may happen to, for instance, a business or organizational sub-unit or a manager - given incidents that tend towards replicating previous grounded theories. Naturally, the wider the theoretical sampling frame develops the more embedded the theory becomes, and whilst generalisability in the naturalistic world of business requires circumspection, general theories become possible from within the qualitative paradigm. Transferability within the naturalistic concept depends on the degree of similarity between the original situation and the situation to which it is transferred. The researcher cannot specify the transferability of findings; he or she can only provide sufficient information that can then be used by the reader to determine whether the findings are applicable to a new situation (Lincoln and Guba, 1985).

This article has discussed and exampled where the research inquiry situates its methodology to account for the reality of that under investigation (ontology) and how best that reality can be established (epistemology). The argument put forward for the application of grounded theory methodology in business research is that micro level concerns such as complexity and context and other unique variables, gravitates towards applying research methods that explicate interpretive understanding and account for what is happening and why. Grounded theory particularly orientates towards eliciting improved understanding of theoretical-conceptualisations of processes of social interactivity. Business as a broad concept exemplifies inherent processes that are dynamic by nature and interactive by necessity. Grounded theory has the inductive capacity to extrapolate, amongst other outcomes, such processes.

REFERENCES
Yin, R. (1994 (2nd Ed)) Case Study Research - Design and Methods (California, Sage).