Facilitating qualitative research in business studies: Using the business narrative to model value creation

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This is a conceptual paper supported by empirical research giving details of a new Business Narrative Modelling Language (BNML). The need for BNML arose given a growing dissatisfaction with qualitative research approaches and also due to the need to bring entrepreneurs, especially those with little training in management theory, closer to the academic (as well as practitioner) discussion of innovation and strategy for value creation. We aim primarily for an improved communication process of events which can be described using the narrative, in the discussion of the value creation process. Our findings, illustrated through a case study, should be of interest to both researchers and practitioners alike.

Key words: Empirical research, qualitative research approaches, dissatisfaction, entrepreneurs, improved communication, Business Narrative Modelling Language (BNML).

INTRODUCTION

Good quality research must, according to Scapens (2008): be firmly grounded in theoretical understandings; seek to extend existing theoretical knowledge; and raise practical implications. This is precisely what we seek to do with this article as we have studied value network theory, the business narrative, game patterns and ontologies on which we base our contribution of a novel business narrative modelling language (BNML) which facilitates qualitative research (necessary to reveal a deep understanding of organizations) and additionally provides a means to easily communicate strategic change towards superior value creation.

According to Barton (2000), there is more than one path open to researchers in the social sciences, either a qualitative or a quantitative approach, so tensions will always exist. A barrier to the widespread use of qualitative research is that it is inherently subjective (Charnery, 2004). This has led to a war zone where quantitative researchers (Barton, 2000) maintain that they are able to produce much more objective results in a well-designed quantitative study (Koerber and McMichael, 2008). The main objective of the article is primarily to provide a novel modelling framework for business narratives to reduce the time necessary to perform qualitative research analyses, while increasing at the same time the consistency across qualitative case studies. This consistency is to be achieved by introducing reusable modelling constructs to be applied across different case studies, as long as they share the same domain ontology. By providing a modelling language that promotes consistency across cases, we aim at responding to a call made by researchers for the “need to develop frameworks for qualitative research that allows the kind of public scrutiny that is available to quantitative researchers” (Koerber and McMichael, 2008, p.470).

Research, as mentioned above, is primarily concerned with the creation of knowledge and in the business domain organizational knowledge may result in the gaining of a “competitive edge” (Alipour et al., 2010).
Thus individuals and organizations alike would do well to improve on their “ability to create knowledge” (Alipour et al., 2010) by making it a main goal of theirs. Knowledge “must be carved out of the continuous web of ongoing reality” (Rose and Peterson, 1965) and for some regions, especially those battling with illiteracy, for example sub-Saharan Africa (Oloruntegbe et al., 2010), a novel application of scientific methodologies, namely those dealing with knowledge creation, may well be an “answer to human problems” (Oloruntegbe et al., 2010). Our conviction is that by using our business narrative modelling language, proposed herein, the aforementioned objectives may be more easily achieved.

In sum, this article is addressed to academics who undertake qualitative research and practitioners who have a need to rapidly analyse companies using a qualitative in-depth methodology. We wish to make qualitative research more attractive by making it easier to perform and more consistent and objective in its results, through using our business narrative modelling language.

THE BUSINESS NARRATIVE MODELLING LANGUAGE: BACKGROUND

Value networks

Verna Allee’s research on value networks as fluid structures where organizations are seen to involve complex dynamic exchanges (Allee, 1997, 2000a, 2002a, 2008) constitutes a major part of BNML. One of Allee’s main contributions has to do with how value is created (Allee, 2000a), namely via three currencies of value: (1) Goods, services and revenue (involving contracts, invoices and payment); (2) Knowledge (for example strategic information, technical know-how as well as collaborative design knowledge); and (3) Intangible benefits (including a sense of community and customer loyalty and other such value not normally appearing in financial measurements) (Allee, 2000a); where knowledge and intangible value exchange are seen to be of equal importance to revenue-generating exchanges, constituting the basis for organizational interaction and the foundation of successful business models (Allee, 2008; Alam et al., 2010a). These three currencies of value, which lead to value creation in the enterprise, are evident in our BNML, in the form of deliverables (tangible or intangible) which are exchanged and in the form of assets (such as Capital and information and communication technologies - ICT), which are used or built up. What we add to Allee’s modelling has to do with the dynamics of what goes on in organizations, which is now given additional emphasis, aided by a novel timeline and tracing of events which occur over time. Allee tells a story about the organization, we in creating the BNML supply a detailed structure for the narrative inspired by patterns and with an ontology to supply added detail, as we shall see below.

Business narratives

The authoring of narratives (Czarniawska, 1999; Brown and Currie, 2003; Denning, 2004; Brown, 2006; Landrum, 2008; Chang and Aaker, 2009) is central to how individuals and groups “make sense of events in their working lives” and is a means “to define their work identities” (Brown and Currie, 2003, p.1). The narrative is increasingly seen as an appropriate path along which one may interpret and understand organizations (Czarniawska, 1999; Brown and Currie, 2003; Brown, 2006; Landrum, 2008) despite that in some quarters “narratives and storytelling have... been treated as unscientific and been given little attention” (Flory and Iglesias, 2010, p.113). It is our conviction that narratives are an important part of the work done by communication theorists (Brown and Currie, 2003), our objective herein, and so narratives and storytelling are to be a focus of BNML. The practical importance of “the effectiveness of the spoken word” (Nichols and Stevens, 1999, p.1) must be recognized for effective communication to take place. The increased interest in stories and the narrative is precisely that “stories can trigger change” (Brown et al., 2009) and are thus an indispensable tool at the disposal of leaders, researchers and management consultants. As we shall see below, the methodology which captures organizational narratives is qualitative in nature which thus justifies our subsequent interest in qualitative tools for constructing knowledge.

Game patterns and the enterprise ontology

The proposed BNML uses game patterns (Bjork et al., 2003; Bjork and Holopainen, 2005) which are re-interpreted to produce business narratives. Thus the names for the narrative patterns were selected from the game pattern work developed by Bjork and Holopainen (2005). This option was taken because game patterns represent “meanings” shared by a wide audience that is familiar with both traditional and video games. The game pattern collection includes patterns for resource management; for information, communication and presentation; for actions and events; for goals; as well as patterns for social interaction (Bjork and Holopainen, 2005). This means that patterns no longer have to be searched for as they already exist.

The instantiation of those game patterns (re-interpreted to produce narrative patterns) in the enterprise domain is
achieved through the usage of the enterprise ontology, proposed by Uschold et al. (1998). This ontology especially suits our need. It provides the means for the business narrative pattern parameterisation and leaves no room for misinterpretation. Combinations of Uschold et al.’s (1998) enterprise ontology terms are added to instantiate the pattern behaviour.

PROBLEMS WITH QUALITATIVE RESEARCH

Qualitative research - A lack of objectivity, rigour, trustworthiness and transparency

Mason (2002) comments that qualitative research is seen to be inferior to quantitative research. Yin (2003) also warns that a stereotype exists against case studies in particular namely that they lack objectivity and rigor. Carson et al. (2001) for example relate the trustworthiness of qualitative research to credibility, dependability and conformability and the trustworthiness of qualitative research is indeed a subject of analysis by the literature.

Ghauri and Gronhaug (2005) advocate the use of triangulation that is the use of multiple data sources whereby material from different interviewees, newspaper cuttings, documents and observations can all contribute to our judgment of whether the data we have is trustworthy. Carson et al. (2001) encouraged the keeping of memos of our actions and thoughts during our research study. While agreeing with the above we also believe that greater transparency is needed and is seen to be essential if qualitative research is to gain more advocates (Alam and Hoque, 2010).

Qualitative research - The case for ease (or difficulty) of use

Empirical inquiries that investigate contemporary phenomena within the real-life context in which they really occur are thus seen to be much more difficult than just doing statistics utilizing software from high up in an “ivory tower” (Scapens and Roberts, 1993). Usability can be defined as the “extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use” (ISO 9241-171, p.7). A related term is that of accessibility, defined as the “usability of a product, service, environment or facility by people with the widest range of capabilities” (ISO 9241-171, p.2). In this context, we defined the premise whereby qualitative research is not “user-friendly” (in terms of its usability and accessibility) and that this is a reason behind it’s lagging in popularity vis-à-vis quantitative methods. This view is shared by Guba and Lincoln (1994, p.106) who state that mathematical (quantitative) propositions are “propositions that can be easily converted into precise mathematical formulas expressing functional relationships” and that these have been the main emphasis in science. Qualitative research is actually more difficult and especially more time-consuming than quantitative research which, after one learns the methodology, is actually comparatively easy, even though one may be led to think otherwise. Elharidy et al. (2008, p.144) gave an example of qualitative research and state that in particular “longitudinal studies are important for [qualitative research such as] grounded theory (Glaser and Strauss, 1967; Corbin and Strauss, 2008) so that the researcher can follow the unfolding events over a relatively long period of time and thereby gain an understanding of the phenomena being studied”. Carson et al. (2001) similarly define qualitative research such as grounded theory as a complex and time-consuming technique. However, these authors concede that these disadvantages are outweighed by the closeness to reality, the depth of understanding, and the new insights which may result.

SELLING LEVEL OF QUALITATIVE RESEARCH

Siggelkow (2007) states that purely descriptive research is hard to sell. Case studies in particular, as they “do not have recourse to the canonical statement “results are significant at \( \rho < 0.05 \)” that helps assure readers’ scepticism of empirical papers” means that “researchers using case research often feel they are fighting an uphill battle to persuade their readers” (Siggelkow, 2007, p.20) despite the view that “papers that build theory from cases are often regarded as the most interesting research... with impact disproportionate to their numbers” (Eisenhardt and Graebner, 2007, p.25).

Qualitative research – more art than science

Corbin and Strauss (2008, p.297) state that “quality in qualitative research is something that we recognize when we see it”, suggesting that perhaps qualitative research is more of an art than a science.

SOLVING SHORTCOMINGS OF THE QUALITATIVE RESEARCH METHOD

Qualitative research - Moving ahead using BNML - A standardization process

Guba and Lincoln (1994, p.105) state that there is a “growing dissatisfaction with the patent overemphasis on growing dissatisfaction with the patent overemphasis on quantitative methods”. We are in agreement with these
on quantitative methods". We are in agreement with
these authors in so far as efforts are necessary "to build a
case for a renewed interest in qualitative approaches"
(Guba and Lincoln, 1994, p.105). It is this objectivity and
rigour which we have spoken of and which is seen to be
lacking which we seek to provide with our modelling tool.
Our BNML also fosters transparency and we intend
furthermore with our study to illustrate that part of the
qualitative research process can indeed be systematized,
without making the research "mechanistic", a risk which
Elharidy et al. (2008) warn against.

We, in writing this paper aim to provide for an easier
application of the qualitative research methodology by
using our business narrative modelling language. We
propose an approach that aims at making the qualitative
research process (for example empirical case studies)
more consistent approach and enabling

patterns (Bjork and Holopainen, 2005) and explicit
combinations of the enterprise ontology (Uschold et al.,

OUR PRIMARY RESEARCH QUESTION

Thus, the primary research question we have addressed
is as follows: Can we contribute to qualitative research by
supplying a modelling framework which greatly simplifies
the qualitative analysis process, while providing the
same time for a more consistent approach and enabling

comparison across cases?

THE BUILDING BLOCK OF THE BUSINESS
NARRATIVE MODELLING LANGUAGE (BNML)

The BNML is supported by one basic building block,
derived from a standard narrative structure that comprises two main elements, namely a story and a plot (InPoint Language of Film, 2010). These elements are defined along certain dimensions, which can be communicated using questions. These dimensions are the story and the plot. For the story we describe: “Who?” relating to the character that provides or receives the deliverable and uses/builds enterprise assets; “What?” relates to a deliverable – tangible or intangible; and “Where?” to the location where the story unfolds. For the plot we describe “How?” the story unfolds, as a pattern sequence, and “When?” along a timeline. The “How?” is modelled as narrative patterns built as a combination of Uschold’s (1998) enterprise ontology terms. The graphical representation of the business narrative develops therefore along two axes: (1) The storyline that unfolds along the timeline; here we can see the exchange of tangible and intangible deliverables, the plus sign indicating who is on the receiving end; (2) the narrative pattern sequence with the pattern name and the ontology terms – Some parameterization may be added in the figure to improve comprehension (Alam et al., 2010b).

Figure 1 shows the outcome of a value network analysis (Allee, 2000a, 2000b, 2002a, 2002b, 2008) we performed at a software manufacturer. The information can easily be portrayed with BNML (Figure 2) which adds a timeline and a sequencing of events not evident in Figure 1. Figure 3 illustrates further the social interactions that take place. The methodology for gathering the enterprise business narrative and to build the BNML diagram and supporting configuration unfolds as follows: (1) We start the process with a recorded interview, allowing for free speech by an enterprise member explaining his/her routine and perception of how things unfold within the enterprise; (2) A joint elaboration of the Value Network (Figure 1) follows, which is the first formalized approach to what happens in the enterprise; (3) The third step is, again, an interactive process between the consultant and the enterprise member that involves the identification of transaction blocks to be materialized as a combination of enterprise ontology items and asset usage (e.g.: ICT, intellectual property, etc.) and creation (e.g.; brand, customer loyalty); this is the point where the narrative pattern is selected to best fit the ontology terms and selected to best suit those transaction blocks; (4) The next step involves the definition of time horizons for specific patterns, enabling the adequate analysis of causality in the storyline (e.g.: sales happen, hopefully, every day); this could further lead to the construction of several related narrative diagrams (e.g. one or more per organizational unit in the enterprise); (5) Finally, the consultant reviews the recorded interview and brings in further detail in order to support a future in-depth analysis of the business narrative.

AN EVALUATION OF THE STUDY RESULTS

A rich communication experience

BNML and the advantage of using standard patterns

Figures 2 and 3 can be rapidly developed in the same afternoon as the main data collection activity by a research team. An advantage of using the BNML is its rapid application while ensuring the adequate detail for an in-depth analysis of the business narrative. The whole process introduces a very significant reduction in the time needed for building the business narrative, namely in the typical lengthy transcription time and pattern identification. The BNML diagrams developed in our case study, much to the surprise of the entrepreneur involved, were swiftly developed and subsequently refined with the entrepreneur (who actively and eagerly participated in the discussion). A graphical representation was of utmost importance for effective communication to occur. From the outset, BNML allowed the discussion of business strategy and enabled a very straightforward communication and clear understanding between the researchers and the company CEO (Alam et al., 2010c).

We have found (following several case studies which we have undertaken) that, as concerns the management of strategic change and especially in small enterprises, the most important of all is to be able to change the mindset of the entrepreneur, as change is of a personal nature (Eriksen, 2008). To achieve this, at one entrepreneurial endeavour in particular, this involved moving from desperation to the possession of a positive vision for the future – BNML helped provide a new vision in a down-to-earth way. The potentially negative attitude towards the use of narratives, stories and pictorial representations needs to be put aside and it is necessary to devise new methods first to create knowledge and then to inspire change at all levels in organizations.

Conclusion

We thus see that there is a need to make qualitative research more popular, and in line with our exposition this will entail improving the usability and standardization of qualitative research methods, which we believe we achieve with our novel BNML. Greater credibility will result from more consistent approaches to interpreting and communicating qualitative information and research results.

Our novel BNML enables the modelling of the value
Figure 2. A representation of deliverables exchanged over time in a software manufacturer value network. We can see how six characters or actors: (1). Actual (End) Customer; (2). Reseller (Partners/Resellers); (3). Organizational Unit (Sales); (4). Organizational unit (Support and implementation); (5). Organizational unit (R&D product line 1); (6). Organizational Unit (R&D product line 2) named using terms taken from the enterprise ontology of Uschold et al. (1998) – interact over time (a timeline not present, for example, in Allee’s (2000a, b; 2002a,b; 2008) representations). The top half of the figure represents the exchange of deliverables (tangible and intangible) between actors. In the bottom half of the figure we can see a Pattern Sequence (how the story is moved along – in this case initiated by Team Play and Character Development and then followed by Collaborative Actions and Goal Points, the figure shows) instantiated by Ontology terms (Uschold et al., 1998) for each interaction. An exemplification of the intangible deliverable exchanges (non-contractual - represented by the white oval shapes): The sales department; Support and Implementation are aided by the R&D departments which pass on product details to get them “up to speed” with products, thus enabling them to perform in the market. The sales department often passes on good sales leads of End Customers (another intangible deliverable) to Partners who respond by giving more business to the software manufacturer. As Support and Implementation spends a lot of time at customer sites they are able to give very good leads to the Sales Department and to also arrange sales meetings for them (both intangible deliverables). Finally, Sales and Support and Implementation both give customer feedback to the R&D departments – intangible value subsequently converted into innovation by R&D in the form of new product functionality.

creation business narrative, with an additional benefit of facilitating strategic change efforts as BNML will facilitate strategic change communication. BNML establishes a link between patterns of narrative structures and narrative plots and the value creation process (in the storyline), recognizable by all of the parties involved. As BNML supplies a framework at a level high enough to still permit a “personalization” of the analysis and which can be used across studies irrespective of the industry and focus, we introduce a novel modelling tool for refining storyline interaction in the organizational environment. In effect we are reducing the complexity of qualitative research yet further as our modelling tool is also pictorial and so simple to grasp, even by a “subsistence, or necessity–based” (Baptista et al., 2008) entrepreneur, as we have found during our research efforts. The illustrations further high-lighted the usage and realization of both tangible and intangible assets, thus enabling the traceability between strategic objective, action and asset usage and realization in a language which we believe is “straightforward
Figure 3. Storylines and pattern sequence over time in a software manufacturer value network. The wavy lines represent the six character storylines and how they progress in a dynamic fashion, coming together and then moving apart as the organizational narrative progresses, giving life in turn to the narratives of the respective characters. The clouds represent major social interaction (events named with game pattern terms taken from Figure 2) occurring between actors - this representation completes the previous representations of the value network.

and logical” (Kalula, 2010) as indeed should be used by research efforts involving the collection, analysis and interpretation of data (Kalula, 2010).

As Malone et al. (2003, pp.13-14) state, we must “be able to imagine alternative ways of accomplishing the same things”. We thus hope that BNML will achieve a small step towards the increased usage of qualitative research in business studies (and its subsequent use, for example, in change initiatives).

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