

Using Repertory Grid to access the underlying realities in key account relationships

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Using Repertory Grid to access the underlying realities in key account relationships

Abstract

This paper examines a variety of examples of repertory grid research to assess how and why the technique is used. In particular, the authors focus on the strengths and weaknesses of using repertory grid to explore the nature of close business-to-business relationships. Compared to the more frequently used technique of qualitative depth interviews, differences were found which suggest that further research is needed to identify what really drives supplier-buyer interdependence. The research indicates the value of repertory grid in exploring topics that are not well defined and to identify the way that business decision-makers are making sense of their work environment.

Introduction

In any marketing research project, it is vital to ensure that data are valid and reliable. The depth interview is one of the most widely-used approaches to qualitative data gathering used by marketing researchers. In a depth interview, a series of topics or themes are set out in a discussion guideline; the interviewer then uses his or her skills and judgement to guide the discussion. Depth interviews offer the benefits of an overall structure (ensuring some control over the topics that are discussed with the interviewee), whilst offering some flexibility for interviewers to explore interesting 'side lines' during the interview process. Thus, the depth interview is a powerful research tool offering insight into the attitudes, preferences and beliefs of interviewees.

However, there is some evidence that depth interviews may not always access the underlying reality. A known problem is that the researcher may introduce bias through the way that they pose or elucidate questions. The problem of interviewer bias can be mitigated by careful training of interviewers and by using several interviewers and cross-checking the results of their interviews, although both of these activities add cost to the marketing research project.

There is a second, and more serious, problem with depth interviews that is not so straightforward to recognise or to manage. This is the problem about whether the interview actually accesses the underlying reality. There are several reasons why this might be the case. The interviewee might be concerned to "keep up appearances", telling the researcher what they think the answer should be, rather than admitting reality. In this context, researchers should consider the likely effect of the research method on the participants, such as concerns about the confidentiality of their responses (Brown 1992). Alternatively, the topic of research may involve unexplored areas of enquiry, or areas which interviewees find difficult to conceptualise or articulate. It can be very difficult, for example,

for buyers to explain why they preferred one product or supplier over another (“I just did”; “I felt more comfortable with that”), and there is some suspicion that some responses are in fact rationalisations, rather than explanations, of decisions.

Other research tools have been developed in response to the known problems with depth interviews. Where the product or concept is well-defined, tools such as conjoint analysis can provide a method of accessing underlying reality (e.g. Backhaus et al. 2005; Cochran et al. 2006). However, where the research topic is more exploratory or less defined, a solution to some of these challenges is the repertory grid. For example, it enables the researcher, instead of asking a direct question such as “what is your strategy”, to pose questions about the factors that influence organizational strategy, and to obtain rich, qualitative feedback covering both descriptive and value-based explanation. The repertory grid is a way of capturing what theories people are using to make sense of something, and quantifying that qualitative feedback. The purpose of this paper is to demonstrate the application of Repertory Grid in marketing research and give a specific example of its application to business-to-business research.

What is the Repertory Grid?

The Repertory Grid was developed by psychologist George Kelly, and is based on his Theory of Personal Constructs. This theory emerged from his work counselling US university students in the 1930s and was first published in 1955 (Katz 1984).

The theory of personal constructs is an attempt to understand and interpret what triggers emotions. The use of repertory grid was confined to individual counselling until the 1960s, when market research and management development applications were explored. Kelly saw individuals as scientists, creating their own hypotheses and using them for interpreting and predicting events. Each individual builds a system of constructs, which they use to make sense of the world. Therefore, behaviour is governed by constructs, which in turn have a bipolar dimension (so, for example, the construct ‘effectiveness’ might have a bipolar dimension running from ‘effective’ to ‘ineffective’). The notion of bipolarity is explored in Semiotic theory (the study of signs), which suggests that the meaning of a word is not determined by word itself but by its opposite (Marsden and Littler 1998).

Personal construct theory applies this notion of bipolarity to how people view the world. It says that people construe things as ‘similar to’ some things and ‘different from’ others. Thus, construing is not thinking or feeling, but discriminating. This takes place at many levels of awareness, including unawareness. When the process of construing fails to make sense of things, individuals experience emotions such as anger or anxiety.

A repertory grid is a research tool that elicits the underlying constructs that people use to interpret what is going on around them and that inform their decision-making. A new grid is developed for each interviewee. The

researcher frames the grid with the elements of comparison (listed horizontally) and the interviewee's constructs (listed vertically) Table 1 shows a part-completed repertory grid for comparing business-to-business customers with constructs such as 'complexity of decision-making structure' and which contains five elements, Customers A to E.

Next, the centre of the grid is filled out with the linkages that interviewees make between the elements (Anon, 1980).

INSERT TABLE 1 HERE

The three features of the repertory grid (elements of comparison, constructs, and linkages) are as follows:

Elements: Elements are the things that are being examined, the things that the constructs are applied to, e.g. products, companies, events or situations, customers. The elements can be supplied by the researcher, or they can be elicited through discussion. For example, if asking about success factors in customer relationships, the interviewer could ask the interviewee to identify customer relationships familiar to him/her as elements. Some degree of structure may still be necessary, such as asking for three successful relationships and three unsuccessful relationships. It is also necessary to ensure that there are not too many elements or the grid becomes unwieldy. Practitioners tend not to work with more than ten.

Constructs: Constructs are the dimensions of what is being examined and they are bipolar, e.g. from fizzy to still, from innovative to "behind-the-times" (It can be easier for respondents to define opposites when defining physical characteristics rather than value-based characteristics). Each element will be associated with one pole or the other of the construct. Researchers could supply constructs if they are focused on ease of aggregation, but it is more usual for researchers focused on the quality of result to elicit constructs from the interviewee.

The method of elicitation used in repertory grid research is to ask the interviewee to compare three elements chosen at random, and comment on how they are similar and how they are different. This is called triading. Follow-up questions to ask for more explanation about respondents' constructs is called laddering.

Linkages: The linkage is the way in which each element is described in term of each construct. In simple grids, the linkage may be just a tick or cross, which makes grids visually easy to compare. It could be a rating, e.g. out of five or seven (or four or six if the researcher prefers to avoid a neutral mid-point). Or, it could be a ranking of elements against each construct.

Applications of the Repertory Grid

Repertory Grid and management research

Although the Repertory Grid was initially developed as a clinical tool for psychologists to counsel individuals, it has been adapted for use in research into human resources, organizational behaviour, and management development such as evaluating the impact of training, recruitment and career counselling, as well as marketing. For example, Honey (1979) undertook a study of what makes an effective manager using repertory grid. He manually aggregated 73 grids with 14 constructs per person in 2 weeks. In order to cluster constructs, he extracted the 4 highest scoring items and 4 lowest scoring items from each grid. He sorted them into categories and compared the top and tail for correlations. In this way, he produced archetypes of the effective manager and ineffective manager (Honey 1979).

Interesting indications of the value of the repertory grid's contribution to qualitative research have come from the insights it has given into understanding of individual behaviour in an HR context. For example, in a study of industrial safety, the researchers uncovered a compensatory behaviour phenomenon, i.e. that introducing a safety measure on a construction site meant that workers became over-confident and took more risks (Aranda and Finch 2003). Also, in studying what makes an excellent systems analyst, Hunter and Beck (2000) found that occupational communities might transcend national boundaries.

Repertory grid also has value in organizational change projects. In a study which used repertory grid to uncover how individuals see their work environment, control systems, and work behaviours, the researchers were able to show how the control systems were seen to be based on embedded assumptions, e.g. that volume was more important than quality (Cassell et al. 2000).

Repertory Grid and market research

Since the 1960s, repertory grid has been used in market research. Recognising that the simple, quantitative techniques common in consumer research lack richness, researchers have turned to interpretive methods such as repertory grid to provide insight into individual and shared meaning systems. Personal construct theory clarifies the conceptual basis for examining how consumers make sense of the world (Marsden and Littler 1998).

The repertory grid seems to have become a successful tool for identifying how consumers view high-value product categories such as cars, financial services, wine and holidays (Marsden and Littler 2000). In a study of business tourism, two separate researchers identified 264 constructs, which they reduced to 8 categories. An important insight was that the categories clustered around 2 themes – the functionality of the resort, and the ambience of the resort (Hankinson 2004).

In Marsden and Littler's research of a random sample of 90 consumers in Manchester, UK, 30 elements and 1,547 constructs were elicited (Marsden

and Littler 2000). The resulting grid was analyzed into three categories of products/services and 22 generic themes explaining how buying decisions were made. Researchers had taken freeform notes from each interview and the computer-generated aggregation was cross-checked against these results. The Marsden and Littler study indicates that it is possible to integrate disparate knowledge into a systematic framework using repertory grid. The research identified self-organized product categories and broadly based patterns of behaviour in buying, together with the most important benefits and attributes. It could further be used to identify new market segments and sophisticated marketing communications using the consumers' own terminology.

A variety of applications of repertory grid in consumer research have demonstrated its applicability. However, it is a relatively expensive technique and, because of the large numbers of respondents involved in consumer research, applications of repertory grid have tended to be in constrained projects using predetermined elements and constructs, and looking at isolated aspects of consumer behaviour.

The situation is rather different in business-to-business market research, where populations of customers are smaller and the need for insight at an individual customer level is considerable. In the business-to-business context, the use of repertory grid seems even more promising.

Advantages of the repertory grid for business-to-business research

There are a number of reasons why the repertory grid is an attractive tool for business-to-business research. For example, researchers can capture interviewees' perceptions of nebulous concepts and probe below the surface into areas of "unawareness".

Moreover, the abstraction of the technique means that the interviewer is more likely to get beneath the interviewee's view of what the answers 'should' be, to a clearer understanding of how they use their past experience to make judgements. Many business-to-business purchasing decisions involve several people in a decision-making unit and the repertory grid might uncover the subjective areas of consensus and conflict in the decision-making unit, beyond the rational confines of the technical specification given to potential suppliers. It may also shed light on the impact of corporate culture on their decision-making. If the repertory grid were applied across organizational boundaries to explore aspects of much-overused expressions such as "partnership", even more interesting findings might emerge.

It is surprising that repertory grid has not been more widely used in business-to-business research to explore meaning in buyer-supplier relationships. An interesting exception was a small study of ten managers in four German engineering companies that explored purchasing professionals' constructs concerning the nature of partnership with suppliers (Lemke et al. 2003). Since the researchers considered that the

term “partnership” had been debased by misuse, the study focused on aspects of closeness with suppliers. Respondents were asked to compare and contrast three close suppliers, three distant suppliers and three average suppliers. Triading and laddering elicited 37 attributes of closeness.

This study identified that closeness was differentiated by personal business relationship, special products, involvement in new product development, investing in maintaining the relationship, and a nearby location. Delivery performance, quality and price were hygiene factors expected from all suppliers (Lemke et al. 2003).

The Lemke study suggests that the field of business-to-business buyer-supplier relationships is one in which greater insight is needed. The Lemke application of repertory grid was on the buyer side. However, the supplier side of business-to-business partnerships is also of great interest. Studies of supplying firms to date have focused on rational reasons for buyer-supplier partnership, including mutual financial benefit through process integration and joint new product development (e.g. Bruce and Ryals 2005). In a review of the key account management literature in 2005, Tan found 24 attributes of effectiveness in buyer-supplier relationships ranging from profitability to information sharing (Tan 2005). In the remainder of this paper, we will demonstrate an application of repertory grid in the context of Key Account Management (KAM). The research indicates how key account managers assess the effectiveness of long-term business-to-business relationships and raises some interesting challenges to conventional wisdom on this topic.

Methodology

Repertory grid interviews were carried out with 10 key account managers from 10 companies in a single sector, logistics and services, in the UK. The logistics sector was selected for research for three reasons: the sector is characterised by the supply of non-commodity, highly specialised and tailored, complex services; customer relationships tend to be longer-term and more strategic, often involving partnering and/or some degree of outsourcing; and there is proactive management of key accounts over a long period. The 10 respondent companies met all three criteria.

Completing the repertory grid

This research used a seven-step process to complete the repertory grid (Table 2).

INSERT TABLE 2 HERE

Data collection

The specific topic around which the grid in the current research was built, was the key attributes that exist in effective relationships. The interview began with the respondents choosing three effective relationships and three non-effective relationships that they knew well. Triading elicited ten constructs per respondent. These constructs were elaborated by laddering down. The respondents rated the relationships against the constructs using a five-point scale. The data were aggregated using a combination of frequency score and degree of variability. The grids were analysed using *Grid Lab* software.

Using laddering to elicit constructs

Step 3 is a critical step in repertory grid research. If poorly-described or less relevant constructs are elicited here, the research is undermined. For this reason, experienced repertory grid researchers often use laddering techniques to gather background comments from respondents about how they define their constructs. Laddering is a method of probing questions ("why is that?") which helps elicit the meaning of attributes. "Laddering up" questions may be used to link or cluster constructs and identify the most important. "Laddering down" questions may be used to get more detail about a construct the respondent has given. For example, if a construct is "good service-bad service", good service may mean efficiency to one person and courtesy to another.

In these interviews, repertory grid technique was supplemented with laddering (see Table 3). Both laddering and repertory grid originate from a similar psychological approach and the two techniques have been proven to work effectively together (Gordon 1999).

INSERT TABLE 3 HERE

An alternative method of elaboration to enhance the richness of response is implication questions, identified by Hinkle (whose "implication grid" is a development of the repertory grid). For example, "if you were to change from aggressive to quiet, what other constructs would change?" The interviewee designs the scenario outcomes (Honess 1978). However, in view of the abstract nature of the research topic (the effectiveness of long-term relationships), simple laddering was used in the current research.

Data analysis: Aggregating repertory grids across individuals

A non-trivial issue in repertory grid-based research is data analysis through grid aggregation (Table 2 Step 7). Because repertory grid technique was originally developed to be used on an individual basis, aggregation must be carried out with care. The simplest method of aggregation is to perform a straightforward frequency count – how many respondents mentioned a particular construct? However, there may be so

many constructs in a large sample that content analysis – analysing the constructs into categories - is necessary. Here, the researcher’s judgement comes into play, as interviewees may use different terms in referring to the same issue, or the same terms when referring to different issues.

Another dimension of aggregation is the variability of constructs. The researcher (or grid analysis software) measures the spread of ratings of each construct compared to other constructs. Constructs with high variability have a high spread of ratings; thus the interviewee differentiates strongly between the elements. This differentiation indicates the high importance of that construct. An example will help to illustrate this point. If ‘Shared Objectives’ is an important construct for effective KAM relationships, whilst ‘Requirements Matching’ is not, interviewees will see more marked differences between customers who share their objectives and customers who don’t, than they will for customers whose requirements match their ability versus customers whose requirements don’t match.

However, there is no objective standard of variability; the variability depends on the number of constructs in an individual grid. If there are 5 constructs in a grid, the average variability will be 5/100, or 20%. If 10 constructs are elicited from an individual grid, the average variability will be 10%. Constructs with higher than average variability are strongly supported.

As well as frequency counting and variability analysis, some researchers have also sought to aggregate ratings. In a study of auditors’ views of auditing, with 14 given elements and 12 given constructs, the researchers averaged the rating of 82 respondents. Three open questions were used to give the respondents flexibility beyond the grid (Óhman et al. 2006). However, there is a danger of quantification at the expense of in-depth understanding, since both elements and constructs were pre-determined. Moreover, pre-determined constructs might have different meanings for different interviewees (Marsden and Littler 1998). Because of these possible problems, data analysis in the current research was carried out using frequency counting and variability analysis only.

Findings

Overall constructs obtained

From the 10 repertory grid interviews, a total of 39 constructs were obtained (C1 to C39). Of these, 25 constructs (64%) were mentioned by more than one respondent. One construct (‘Shared business strategy’) was mentioned by 6 respondents, and a further six constructs were mentioned by 5 respondents (Table 4).

INSERT TABLE 4 HERE

The overall number of constructs was comparable with the 37 elicited from buyers in key account relationships by Lemke et al. (2003). The next step was to identify the most important constructs using frequency counting and variance analysis.

Identification of key constructs

On a standard frequency-count basis, 15 constructs were mentioned by 3 or more respondents (that is, by more than a quarter of respondents) and might prima facie be regarded as the most important. However, the variability analysis showed a slightly different picture (Table 5). Taking the average number of constructs per interview as close to 10, the constructs were categorised according to whether their averaged normalised variability (ANV) across the interviews was greater than 10% (indicating an important construct) or less than 10% (indicating a less important construct).

INSERT TABLE 5 HERE

Table 5 shows that 8 constructs met both criteria – that is, had a higher than average ANV and a high frequency count. A further 7 constructs had high frequency counts but low ANV. 12 constructs had high ANV but low frequency. For this sample, then, the key constructs for the effectiveness of long-term KAM relationships were the eight listed in Table 5. Comparing the frequency and ANV using *Grid Lab* software, the relative importance of these key constructs was determined (Table 6).

INSERT TABLE 6 HERE

The results showed that key account managers regard the most important indication of effectiveness to be a close personal relationship with the buying decision-makers, including social contact. Rather than complex inter-organizational product and process design, they felt that simple product requirements were the second most important indicator of effectiveness. Other significant constructs were trust, fairness on prices, the technical expertise of customer personnel, shared objectives, investment in relationship maintenance and the customer's own performance improving as a result of the relationship.

Interestingly, the most-mentioned construct (C14, Shared business strategy) did not make the top eight. Nor did four out of the six constructs that were mentioned 5 times. This illustrates the shortcomings of simple frequency counting when researchers are aiming to discover the underlying drivers of behaviour and preferences. Because the repertory grid analysis presented here also takes account of apparent importance, it facilitates the identification of key constructs. However, it has the advantage over trade-off or conjoint-style approaches that the constructs

are elicited from interviewees who may find it difficult to answer straightforward questions about what is important in the relationship.

Discussion

The repertory grid approach to conceptualising the effectiveness of KAM relationships has uncovered eight key constructs based on frequency of mention and strength of construct. However, there are two puzzles that need to be explained. The first puzzle is the frequently-mentioned constructs that did not seem to have high strength as measured by ANV; the second is the apparent gap between factors that previous studies have found to be important, and the findings from this research.

As identified above, there were five constructs that were frequently mentioned but which had low ANVs. These were Openness (C1); History of relationship (C6); Shared strategy (C14); Dependence (C26) and Balance of power (C35). None of these five appeared on the final list of eight key factors. A possible explanation for this is that constructs such as openness, history, shared strategy etc are hygiene factors and that these are conditions that must exist in order for there to be a long-term relationship, however effective or ineffective.

This links to the second issue, which is that many constructs found to be important by previous researchers have not been found to be important using the repertory grid approach. These include constructs such as 'Productive', 'Mutual benefits', 'Competitive advantage' etc. (e.g. Lemke et al. 2003). One explanation, as we have seen, is that some previously important constructs may now have become hygiene factors. A second possible explanation is that key account managers might be prioritizing some things that do not fit in with the company's key account policies. Thirdly, it could be that the key account literature has overlooked the real drivers of business relationships by utilizing research methods that have not been probing enough.

The Lemke et al. (2003) study is of particular interest because this was carried out with purchasing managers, who are on the other side of the key relationships examined by this research. It is interesting that the purchasing study and this supplier study both identify personal relationships as most important, something that has been largely overlooked or downplayed in the literature.

However, the second most important construct of purchasers and key account managers appears to be in conflict, with purchasers identifying special products and key account managers identifying simple product requirements. This suggests that further research is necessary. This research could use repertory grids in a business-to-business context to examine supplier-customer dyads and to clarify how congruent buyer-supplier constructs of partnership really are.

Practical issues in using repertory grid

It is important for researchers using the tool to understand Kelly's underlying assumptions and the implications of them, as well as the limitations of the repertory grid technique. The first limitation concerns bipolar constructs. It has been argued that bipolarity may not be helpful because meanings can be contested (Marsden and Littler 1998). Some interpretations of words have specific social or interest group contexts. For example, are terrorists and freedom fighters bipolar opposites or the same thing? Contested meaning could be a problem when interviewing different professions from different companies.

The second area in which researchers using repertory grid need to take care is in the use of elicitation techniques and in rating the elements. Sampson (1972) noted that respondents tend towards physically descriptive constructs, rather than value-based ones, although this can be overcome by interviewers asking, "in what way do you like these elements, and in what ways do you dislike them" (instead of "in what ways are these elements similar, in what ways are they different"). It has also been suggested that quantification may actually distract from understanding, so Honey (1979) advocated using supplementary open questions as a way to verify themes.

The second limitation arises at the point of aggregation. People differ in their construction of events. Even where constructs are similar, the different individuals who have those similar constructs may have arrived at them through different experiences. Aggregation of repertory grid data may distort that (Katz, 1984). Grouping constructs from different individuals into categories may introduce researcher bias at the aggregation stage, although this could be minimised by using multiple researchers on the task of clustering constructs.

A third limitation is the difficulty of retest. Kelly assumed that people are oriented towards the future rather than the past and that they act now in accordance with their expectations of events. The theory accepts that people learn and develop from experience, and therefore their constructs may change over time, which makes retest difficult.

A practical limitation of repertory grid is that it can be time-consuming. Senior managers have a limited time to spare on responding to research, and it is essential to make sure that the research method is interesting and useful (Brown 1992). Some researchers have found that busy people may lose patience with the repertory grid. In a study of 86 organizations in the crop protection industry, Brown (1992) found that freeform cognitive mapping was preferred to the repertory grid. Easterby-Smith et al (1996) also report that the grid can take a long time to complete and Aranda and Finch (2003) commented that there was a danger of information overload on the respondent. If there is a time and boredom constraint on the respondent, the repertory grid may introduce a sample bias.

The importance of repertory grid for market research

The repertory grid is rooted in grounded theory. The categories used in the findings emerge from the data rather than being introduced by the researchers. It is a technique that grounds the data in the culture of the participant, if they choose both the elements and the constructs, and it is clearly useful where there is a profound need to explore the personal worlds of the research subjects.

Despite some practical limitations, discussed above, the repertory grid has attained popular status in management research because of its particular strengths. It helps researchers to explore the unarticulated concepts and constructs that underlie people's responses to the world. It is particularly useful for exploratory research into fields that are not well-defined. Moreover, it is a technique that may reduce the problem of interviewer bias in depth interviews (although it should be noted that there are possibilities for interviewer bias to creep in again at the aggregation stage).

A particular strength of the repertory grid technique is that it can help to access the underlying realities in situations where the cultural or people issues are particularly strong and where interviewees might otherwise feel constrained to try and answer how they think they should, as opposed to how they really think. Given these powerful advantages, repertory grid has been underused in business-to-business market research and, in particular, in studies that need to cross organisational and functional boundaries.

References

- Anon, (1980) What is a repertory grid? *Journal of European Industrial Training*, 4, 2, pp. 3-7.
- Aranda, G. and Finch, E. (2003) Using repertory grids to measure changes in risk-taking behaviour, *Journal of Construction Research*, 4, 1, pp. 101-114.
- Backhaus, K., Wilken, R., Voeth, M. and Sichtmann, C. (2005) An empirical comparison of methods to measure willingness to pay by examining the hypothetical bias, *International Journal of Market Research*, 47, 5, pp. 543-562.
- Brown, S.M. (1992) Cognitive mapping and repertory grids for qualitative survey research: Some comparative observations, *Journal of Management Studies*, 29, 3, pp. 287-307.
- Bruce, L. and Ryals, L. J. (2005) Strategic intent in KAM. Management report for the KAM Best Practice Research Club: Cranfield School of Management.
- Cassel, C., Close, P., Duberley, J. and Johnson, P. (2000) Surfacing embedded assumptions: using repertory grid methodology to facilitate organizational change, *European Journal of Work and Organizational Psychology*, 9, 4, pp. 561-573.
- Cochran, J. J., Curry, D.J., Kannan, S., and Camm, J.D. (2006) Conjoint Optimization: An Exact Branch-and-Bound Algorithm for the Share-of-Choice Problem, *Management Science*, 52, 3, pp. 435-447.
- Diaz de Leon, E. and Guild, P.D. (2003) Using repertory grid to identify intangibles in business plans, *Venture Capital*, 5, 2, pp. 135-160.
- Easterby-Smith, M., Thorpe, R. and Holman, D. (1996) Using repertory grids in management, *Journal of European Industrial Training*, 20, 3, pp. 3-30.
- Gordon, W. (1999) *Goodthinking: A Guide to Qualitative Research*. Admap: Henley on Thames.
- Hankinson, G. (2004) Repertory grid analysis: an application to the measurement of destination images, *International Journal of Nonprofit and Voluntary Sector Marketing*, 9, 2, pp. 145-153.
- Honess, T. (1978) A comparison of the implication and repertory grid techniques, *British Journal of Psychology*, 69, pp. 305-314.
- Honey, P. (1979) The repertory grid in action: How to use it to conduct an attitude survey, *Industrial and Commercial Training*, 11, 11, pp. 452-460.

Hunter, M.G. and Beck, J.E. (2000) Using repertory grids to conduct cross-cultural information systems research, *Information Systems Research*, 11, 1, pp. 93-101.

Katz, J.O. (1984) Personal construct theory and the emotions: An interpretation in terms of primitive constructs, *British Journal of Psychology*, 75, pp. 315-327.

Lemke, F., Goffin, K. and Szejcowski, M. (2003) Investigating the meaning of supplier-manufacturer partnerships: An exploratory study, *International Journal of Physical Distribution and Logistics Management*, 33, 1, pp. 12-35.

Marsden, D. and Littler, D. (1998) Repertory grid technique: an interpretive research framework, *European Journal of Marketing*, 34, 7, pp. 816-834.

Marsden, D. and Littler, D. (2000) Exploring consumer product construct systems with the repertory grid technique, *Qualitative Market Research*, 3, 3, pp. 127-144.

Öhman, P., Häckner, E, Jansson, A-M and Tschudi, F. (2006) Swedish Auditors' view of auditing: Doing things right versus doing the right things, *European Accounting Review*, 15, 1, pp. 89-114.

Sampson, P. (1972) Using the repertory grid test, *Journal of Marketing Research*, 9, pp.78-81.

Senior, B. (1996) Team performance: Using repertory grid technique to gain a view from the inside, *Journal of Managerial Psychology*, 11, 3, pp. 26-32.

Tan, Y. (2005) Assessing the effectiveness of long-term relationships in a business-to-business context. Unpublished Msc thesis, Cranfield School of Management, Cranfield.

Table 1: A part-completed repertory grid*

	Customer A	Customer B	Customer C	Customer D	Customer E	
Less complicated decision-making structure						Complicated decision-making structure
High level of key stakeholder involvement						Low involvement
Prepared to invest in the relationship						Not prepared to invest in the relationship
Understands the financial benefits of a long-term relationship						Does not understand the financial benefits
Clear strategy						Unclear strategy
Openness						Closed

*Adapted from an interview with a key account manager in the current research

Table 2: Seven steps to completing a repertory grid

Step	Action	Comments / Notes
1	Choose the topic for the grid	Should be specific
2	Select elements	This could be product or service examples for market research. Alternatively, comparisons: Senior (1996) used a good team, a bad team, an ok team, a well-acted play, a badly-acted play, a work team of interest to respondent and another team they know, as elements.
3	Select constructs by triading	The interviewer chooses three elements at random and asks the respondent for ways in which they are similar and ways in which they are different. For example, in a study of conference destinations, three of the elements were Brighton, Bath and Manchester. Bath and Brighton were considered historic versus Manchester's industrial image, but Brighton and Manchester appeal to young people versus Bath appealing to older people, (Hankinson, 2004).
4	Create the grid framework	Create a simple grid with the elements at the top, and the poles of the constructs listed at either side (see Table 1)
5	Ask the interviewee to complete the grid using the chosen linkage system.	This could be just a tick or cross. It could be rating, e.g. out of five; or six if the researcher prefers to avoid a neutral mid-point. Or, it could be a ranking of elements against each construct.
6	Interpret the grid	By comparing columns looking for similarity and contrasts in the elements, the researcher can see how the interviewee would profile a particular element, such as "a good team". A comparison of rows indicates related and unrelated constructs. Computer programs are available to support repertory grid analysis. They are widely used to identify the most similarly rated constructs and provide a map of correlations (Diaz de Leon and Guild, 2003).
7	Aggregate the individual grids	Researchers in marketing and organizational behaviour use repertory grids to interpret the constructs of groups. However, it is worth re-emphasizing that the repertory grid was designed in clinical psychology for individual use. Interpreting across many individuals' grids to identify common factors, even though quantification has been made possible, is a difficult task given the possible variety of individual responses.

Table 3: Eliciting constructs using laddering

Construct	Construct label	Poles	Sample respondent explanation
A1	Complicated decision-making	<ol style="list-style-type: none"> 1. Complicated 2. Decision structure 	<p>"They have <u>complicated decision structures</u> because the people who ...want to do it... don't have the power..."</p>
<p>Why is that?</p> <p>A2</p>	Involvement of key stakeholders in decision-making process	<ol style="list-style-type: none"> 1. Key stakeholders 2. Decision-making process 	<p>"They don't <u>involve key stakeholders in the decision-making process.</u> They are not getting the right person involved in the right decision.</p>

Table 4: Frequency count of constructs

Construct ID	No of constructs	No of mentions
C14	1	6
C1; C6; C7; C12; C16; C21	6	5
C9; C11; C15; C20; C26	5	4
C2; C28; C35	3	3
C3; C4; C8; C10; C17; C19; C24; C25; C27; C39	10	2
C5; C13; C18; C22; C23; C29; C30; C31; C32; C33; C34; C36; C37; C38	14	1
	39	

Table 5: Analysis of findings by ANV and frequency count

	No of constructs	Construct ID
ANV <10%	19	
ANV 10%+	20	
ANV 10%+ plus frequency 3 or more	8	C2; C9; C11; C12; C15; C16; C20; C27

Table 6: Identification of key constructs

Ranking	Construct ID	Construct	Frequency	ANV
1	C16	Personal relationships	5	11.36
2	C4	Simple product requirements	4	11.32
3	C28	Trust	3	11.07
4	C11	Fairness on price requirements	4	11.02
5	C9	People quality and technical expertise	4	10.81
6	C2	Shared objectives	3	10.54
7	C20	Relationship maintenance	4	10.16
8	C12	Partner's performance	5	10.05