Realism with the Triangulation Techniques: The Effective Methods for Social Science Research

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Abstract

In the current research context, realism has been adopted as the most suitable paradigm by which to discover the needs of the current attempt to understand the management of knowledge workers in the Multimedia Super Corridor (MSC) status companies, Malaysia. This is because as a realist, one can discover a world with no bounds. In this regard, compared to positivism, which is known as value-free, and interpretivism, known as value-laden, realism is rather value-conscious. Positivism implies that one should focus on what one can observe and measure. On the other hand, interpretivism argues that meanings and roles are not fixed and given (deterministic), but that negotiation in interaction is viewed to help the researcher to interpret results. Even though this interpretivism may be able to fill the gap created by positivism – that is, a comprehensive understanding of the whole - it still cannot provide strong findings. This is due to its lack of transparency, being too subjective, difficult to replicate and carrying problems with generalisation. In another case, as knowledge workers serve as the unit of analysis of this study, realism allows the researcher to expand the assumptions made by the positivist as well as the interpretivist approach. Realism provides better mechanisms for discovering the behaviour of human beings more intuitively. It allows the researcher to explore, describe and explain issues related to the current study more deeply. Overall, this paper highlights a discussion of realism as a successful philosophical background to the social science research.

Keywords: Realism, Social Science Research, Qualitative Research and Triangulation

Reference to this paper should be made as follows:


INTRODUCTION

Research design is the “master technique” (Kornhauser & Lazarsfeld, 1975, cited in Ghauri & Grønhaug, 2005: p. 26), which plays a very important role in finding answers to research questions. It provides the method by which a study can be completed and gives guidelines and/or instructions on how to collect and analyse the data (Churchill, 2007). Thus, one must be capable of identifying the best design by which to undertake social science research. An error of choice will have a huge and negative impact on the output. This is supported by Ghauri and Grønhaug, (2005: p. 27), who stated that: “…other common mistakes… [in research design]… are making wrong and/or irrelevant design choices, such as examining a badly understood problem with a very structured design…[or]…examining structured, well-understood problems with ‘unstructured’ methods, making it difficult to answer the research problem adequately…”. They further suggested that the researcher should look at three main aspects, as shown below in Table 1:
Table 1: Types of Research Design

<table>
<thead>
<tr>
<th>Problem structure</th>
<th>Research Design</th>
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<tr>
<td>Unstructured</td>
<td>Exploratory</td>
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<tr>
<td>Structured</td>
<td>Descriptive</td>
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<tr>
<td>Structured</td>
<td>Causal</td>
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Source: Ghauri and Grønhaug (2005: p. 27)

RESEARCH DESIGN

There are three main types of research design, as outlined by Churchill (1991), Ghauri and Grønhaug (2005) and Saunders et al. (2000). These are exploratory, descriptive and causal. Even though all these research designs are explained as separate entities, the researcher can still combine them into one framework (Gill & Johnson, 2002). For instance, in the current study, all the above designs - exploratory, descriptive and explanatory - have been applied to collect data within the MSC status companies.

Exploratory Design

Firstly, exploratory research is usually conducted when the research problems are poorly understood (Ghauri and Grønhaug, 2005: p. 28). It commonly utilises the qualitative data collection method (Ghauri & Grønhaug, 2005; Zikmund, 2009). In this case, Ghauri and Grønhaug (2005) also emphasised that the researcher must have the ability to observe, get information and construct an explanation (i.e. theorise) from the findings. Within the current research context (i.e. The role of human resource management in knowledge management: a study of managing knowledge workers in the Multimedia Super Corridor (MSC) status companies, Malaysia), this approach is considered to be useful due to the research objective, which is to understand the human resource management issues pertaining to the management of knowledge workers in Malaysia, which until now have been little addressed in the local context (see, for example, Yahya & Goh, 2002). Thus, exploring this issue of managing knowledge workers within the locale of Malaysia gives the researcher a greater understanding of their perception of the importance and implementation of knowledge management in knowledge based companies such as those in the MSC. Apart from that, the exploratory research not only contributes in clarifying specific research themes, but also helps to verify certain methodologically related questions (De Vaus, 2002). For instance, after conducting the questionnaire survey, it was realised that there was a need to cross check the findings by examining more specific issues and questions during in-depth semi-structured interviews.

In other cases, authors may consider that exploratory research should utilise qualitative data collection (Ghauri & Grønhaug, 2005; Zikmund, 2009). However, in this case, the triangulation of quantitative (i.e. questionnaires survey) and qualitative (i.e. in-depth semi-structured interview) approaches has been used in gathering data. This is purposefully done to ensure that the findings are sufficiently rigorous for further empirical analysis. This is in agreement with other authors who encourage use of the best methods of data collection, such as Miles and Huberman (1994, cited in Flick, 2002: p. 264) and Ghauri and Grønhaug (2005). For instance, according to Miles and Huberman (1994), as shown in Figure 1, there are many ways of carrying out triangulation of methods. Four methods have been recognised so far: firstly, qualitative and quantitative methods can be used together from the beginning of data collection until completion; secondly, the researcher can use qualitative and quantitative methods in alternate waves; thirdly the researcher can begin with a qualitative method, follow-up with quantitative and then double check with qualitative again, and finally, the researcher can take the same approach as in the third method but start with quantitative methods, using qualitative methods to double-check and finally conducting an experiment.

In this study, due to the consideration of cost and the limited time allocated for the fieldwork (i.e. three months), it was decided to adopt the third approach, which was initiated with a literature review on the exploration of the related issues and peer discussions. The questionnaire survey and an in-depth semi-structured interview follow later. A further discussion of these triangulation methods is provided in the next section.
Furthermore, the findings from this exploratory research could be the best foundation for the researcher’s future research. This is because exploratory research has been also described as an appropriate precursor to the development of more specific descriptive and good causal explanations (Churchill, 2007; Morgan, 1997). In agreement with this, Sekaran (2006: p. 95) states that: “…exploratory studies are done to better comprehend the nature of the problem since very few studies might have been conducted regarding the phenomenon needed to be understood. Extensive interviews with many people might have to be undertaken to get a handle on the situation and the phenomena. Once a better understanding is obtained, more rigorous research can then proceed…”.

**Descriptive Research**

The next design is descriptive research. As this study is also trying to answer the questions of “what” and “how”, descriptive research is required in order to present data in a more meaningful way (Sarantakos, 2005; Sekaran, 2006; Zikmund, 2009). According to Sekaran (2006: p. 97), descriptive research helps “…to understand the characteristics of a group in a situation of interest, aid in thinking systematically about aspects in a given situation, offer ideas for further probing and research, and/or help make certain simple decisions (such as how many and what kinds of individuals should be transferred from one department to another)”. Usually, this approach is suitable when the research objective is to describe the social phenomenon of interest, such as describing the demographic characteristics of the population under study (i.e. knowledge workers in the MSC status companies); determining the proportion of the population that behaves in certain ways; and to make certain predictions on the basis of the findings (Churchill 2007; Schutt, 2009). In other words, this method is applied, firstly, to provide general views on the characteristics of knowledge workers from the local context. Secondly, it is used in describing the perceptions of knowledge workers towards knowledge management practices in MSC status companies, Malaysia (i.e. importance and implementation). Finally, it describes how they perceive matters related to the roles of human resource management for the implementation of knowledge management.

**Explanatory Research**

The third research design is explanatory research. It is usually conducted when the researcher has a clear view of the research problem. In this regard, the research problem will become more narrowly defined after conducting the exploratory and descriptive research (Churchill, 2007; Zikmund, 2009; Schutt, 2009). Therefore, in order to identify further relationships between the variables or their impact on certain issues, causal research (i.e. explanatory research) is required (Sekaran, 2006; Zikmund, 2009). Some authors referred to it as “explanatory research” (Churchill, 2007), “cause-and-effect research” (Zikmund, 2009) or “causal and evaluation research” (Schutt, 2009). In this thesis, the term “explanatory research” will be used in further discussions. In this view, explanatory research is based more on assessing
the problem situation by involving causal relationships between variables. At the same time the researcher is free to control certain variables with the purpose of seeing the effects on other dependent variables. Nick Bontis is a well-known researcher who has applied this type of design in conducting knowledge management research (Cabrita and Bontis, 2008). For example, in his research with his colleague, sampling 76 senior executives from 25 financial services companies, Bontis and Fitz-enz (2002) measured the antecedents and consequence of effective human capital (i.e. knowledge workers) management. The findings revealed the existence of causal relationships between human capital management and business performance. Another example of this type of research is experimental research, which normally entails testing hypotheses (Sekaran, 2006: p. 98). This is done by testing the relationships between variables that have been clearly defined. Furthermore, explanatory research is aimed at assessing the existing procedures, or may be focused on whether particular policies and programmes help to curb or minimise a problem. In this view, Ordóñez de Pabloz (2004) provides a good example from her work on 123 Spanish manufacturing companies. Using a structural equation modelling technique, she tested the hypotheses underpinning the link between the human resource management systems (HRMS), strategic organisational resources and the creation of sustained competitive advantage. It was found that “an internal HRMS contributes to the creation of knowledge stocks as individual level that is human capital [i.e. knowledge workers]” (p. 486). However, even though the earlier works by Bontis and Fitz-enz (2002) and Ordóñez de Pabloz (2004) could give some indications of the relationships between human resource management, knowledge management and managing knowledge workers, more work, providing further empirical data with qualitative findings, is needed in order to support the above situation and offer greater depth and explanation of such relationships. Therefore, the current study has also taken this challenge in order to provide more robust findings. Here, the explanatory design helps the researcher to reveal key views of the relationship between knowledge workers, knowledge management, human resource management and the government development agency towards the end of data analysis. In the light of the above understanding, exploratory and descriptive research designs have also been adopted in the current study. This is because of its capability to provide the researcher with a deep understanding of human resource management issues pertaining to the management of knowledge workers in the Malaysian context. While, in this study, explanations or possible relationships are explored, clear cause-and-effect relations have not been sought as such. The explanatory findings thus permit the researcher to outline several more interesting issues that could be useful for future research.

RESEARCH PHILOSOPHICAL BACKGROUND: A REALIST APPROACH

In implementing the research designs discussed above, the ontological assumptions is first identified (i.e. the nature of understanding of the subject matter). This then leads to the development of epistemological assumptions regarding how exactly the researcher views the world. In reflecting on these assumptions, several research paradigms are offered in social science research. A paradigm is defined as “a set of beliefs (of metaphysics) that deals with ultimate or first principles. It represents a worldview that defines …for its holder, the nature of the ‘world’, the individual’s place in it, and the range of possible relationships to that world and its part…” Different authors have discussed paradigms in different ways. Authors like Guba and Lincoln (1994) summarised these paradigms into three groups: “positivism”, “interpretivism” and “realism”. May (2001) put the issue in broader terms by classing paradigms as “objectivity”, “positivism”, “empiricism”, “realism”, “subjectivity”, “idealism”, “building-bridge” and “postmodernism”. In another case, Allan (2005) divided them into “positivism”, “interpretivism” and “eclecticism”. In recent years, Remenyi et al. (2000) highlighted the use of the “positivist” and the “non-positivist” (i.e. phenomenological) approaches. In the current research context, realism has been adopted as the most suitable paradigm by which to discover the needs of the current attempt to understand the management of knowledge workers in the MSC Status Companies, Malaysia. This is because as a realist, one can discover a world with no bounds (Ackroyd & Fleetwood, 2000). These authors further claim that realism involves three main criterions: “The first is that there is a prediction to connect things in realist research and writing, which is not found with such frequency or extent in other types of approach to the field…The second claim is that realist analysis engenders debate about the nature of the world that research has uncovered or partly uncovered that may contribute to the growth of knowledge…The third claim is that realism has emancipatory [i.e. unrestrained] potential” (pp. 22-23).

In other words, this means that the researcher is free to see the world as it is, without the restrictions outlined by positivism and intrepretivism. In this regard, compared to positivism, which is known as value-free, and interetivism, known as value-laden, realism is rather value–conscious (Bhaskar, 1989; Lincoln & Guba, 1985). Positivism implies that one should focus on what one can observe and measure (Friedman, 1999). In this regard, the world and the universe are considered to be deterministic—they operate by laws of cause and effect such as “all cats are cats” (tautologies) and, “2+2= 4” (mathematics) (Trochim, 2002). These statements, according to positivism, can only become true by hypothesis-testing that locates sense and meaning with experience through quantitative research. On the other hand, interpretivism argues that meanings and roles are not fixed and given (deterministic), but that negotiation in interaction is viewed to help
the researcher to interpret results (Guba and Lincoln, 1994). In this regard, the qualitative approach used by interpretivists is a way to gain insights through discovering meanings by improving the comprehension of the issue as a whole (Strauss & Corbin, 2009). Furthermore, even though this interpretivism may be able to fill the gap created by positivism – that is, a comprehensive understanding of the whole - it still cannot provide strong findings. This is due to its lack of transparency, being too subjective, difficult to replicate and carrying problems with generalisation (Guba & Lincoln, 1994).

In another case, as knowledge workers serve as the unit of analysis of this study, realism allows the researcher to expand the assumptions made by the positivist as well as the interpretivist approach. Realism provides better mechanisms for discovering the behaviour of human beings more intuitively (Sayer, 2000). Furthermore, the eligibility of realism to utilise both quantitative and qualitative approaches provides the advantage of studying human behaviour in different ways (Ackroyd & Fleetwood, 2000; Sayer, 2000). It allows the researcher to explore, describe and explain issues related to the current study more deeply, as mentioned in the earlier section on research design. Furthermore, this is because, from the perspective of the scientific method, physical sciences and social sciences are two different things. In this view, Godard (1993: p. 288) states: “At the heart of the social action critique is the argument that there is a fundamental difference between the subject matter of the physical sciences and that of social sciences: where the physical sciences study inanimate objects incapable of making conscious choices, the social sciences study human subjects with a will and volition of their own. Thus, where the behaviour of the former can be studied in accordance with their objective physical properties and is determined by external, causal forces, the behaviour of the latter must be studied in accordance with essentially subjective motives and belief systems and is determined by conscious and unconscious choice processes. It follows that though the behaviour of physical objects is subject to universal laws and can (ideally) be predicted with a high degree of certainty based upon these laws; the behaviour of human beings is not subject to such laws and cannot be predicted with a high degree of certainty. If behaviour does appear to be readily predicted, it is only because individuals choose to behave in certain ways under certain conditions. Thus, the task of the social sciences is to analyse not the ‘objective’ but rather ‘subjective’, seeking to explain and understand behaviour with reference to underlying motives and meanings systems [i.e. theoretical realism] rather than to predict and control it.”

In relation to this study, the researcher has set out to explore, describe and explain knowledge workers’ current perceptions of the concept of the implementation of knowledge management and their understanding of how human resource management may support its effectiveness. There is no determination of results in studying knowledge workers’ behaviours as predicted by the positivist. However, the current study tries to report the findings as they are, i.e. the reality of the phenomenon under investigation, and provides rigorous discussions of the results collected via triangulation methods. This then allows the researcher to generalise the findings toward a broader aspect, especially within the MSC status companies. Therefore, there will be no proper regulations and/or laws in investigating these issues. This is then referring to the “subjectively constituted social reality” that provides “generative mechanisms” for conducting social science research not only at the surface but also at the level of concrete reality beyond (Godard, 1993). In the light of this understanding, the nature of realism is that the physical and social worlds exist independently despite the knowledge that we have (Ackroyd & Fleetwood, 2000; Sayer, 2000). Thus, in agreement with the performance potential suggested by Reed (2000), causal power or ways of acting would become the concrete source in further explaining the relationship between the physical and the social world. For instance, in the case of high turnover in the company, this might no longer be simply due to job satisfaction; other factors such as competitive reward packages, the company working culture, the job challenge and leadership commitment could also be considered as reasons.

In other words, from the realist point of view, the above social phenomena, such as workers’ actions, leadership commitment and company policy, are concept-dependent. The main task here is not only to explain such matters and their effects, but also to understand and interpret exactly what they mean. For example, if young knowledge workers tend to leave the company after a two-year period, then there will be a need to explain not only “about” their leaving, but also “why” this is occurring. Therefore, there are dissimilarities in the perception of reality in the realist paradigm compared to positivism and interpretivism. As mentioned earlier, objects and social relations in the social sciences have been argued to have causal power; thus, there is no fixed expectation that they may or may not produce regularities (Bhaskar, 2009). In view of this, there is a need for more methods by which to establish and evaluate the qualitative nature of social objects and relations on which causal mechanism depend in order to discover and assess regularities in the social sciences (Ackroyd & Fleetwood, 2000; Guba & Lincoln, 1994; Sayer, 2000), and less weight is placed on quantitative methods.

**SUMMARY**

On final analysis, it can be concluded that realism allows the combination of quantitative and quantitave methods. It has a major impact on the way social science research is carried out, especially in terms of research design, questions and research ethics. Therefore, for the purpose of this research, both methodologies have been utilised. In particular,
phenomena in terms of the meanings people bring to them that are real. Denzin and Lincoln (2000: p. 8) have also pointed out that qualitative research seeks answers to questions that underline "how" social experience is created and given a meaning. In contrast, quantitative studies, which are normally conducted by the positivist, emphasise the measurement and analysis of causal relationships between variables and not processes.

In this research i.e. “the role of human resource management in knowledge management: a study of managing knowledge workers in the Multimedia Super Corridor (MSC) status companies, Malaysia”, a questionnaire survey and an in-depth semi-structured interview of the primary sources were used for data collection. Secondary sources such as printed materials, i.e. annual reports, magazines and news releases, are also gathered for the purpose of further clarification. These triangulation methods have also been seen to help in cross checking the findings from each of the methods used, thus contributing to a greater reliability and validity of results (Denzin & Lincoln, 2000; Silverman, 2000). In addition, these triangulation methods may also reduce the weaknesses of the research design and strategies, as the latter will be compensated by the counter-balancing strengths of the former (Blaskar, 2009). Thus, this approach may provide more meticulous findings (Gill & Johnson, 2002). In this research, qualitative methods were used to cross check the earlier findings gathered by the questionnaire survey. However, the main drawback of triangulation is that it may not be suitable for further replication, as it is very costly and time-consuming (Hussey & Hussey, 2003: p. 75). Furthermore, according to Gill and Johnson (2002), there are three different applications for triangulation: firstly, the use of different research methods in the same study to collect data and to check the validity of the findings, secondly, the collection of different data on the same phenomena, sometimes using different researchers so as to validate findings, and thirdly, collecting data on the same phenomena at different times and places within the same study. This research on “the role of human resource management in knowledge management: a study of managing knowledge workers in the Multimedia Super Corridor (MSC) status companies, Malaysia”, employs the third category as shown in Figure 1 (see page 3). It starts with the exploration of research issues via a qualitative technique (i.e. a literature review on knowledge, knowledge work, knowledge workers, knowledge management, human resource management and an analysis on the Malaysian economic framework). After that, the fieldwork began with the questionnaire survey as the first stage, followed by the in-depth semi-structured interviews.

Zickmund (2009) pointed out that there are many ethical issues to be considered when carrying out survey-based research, such as the respondents’ right to privacy; the use of deception; the respondents’ right to be informed about the purpose of the research; the need for confidentiality; the need for honesty in collecting data; and the need for objectivity in reporting data. In agreement with this, it has been emphasised that through shared guidelines, principles, and written and unwritten laws, research ethics help the researcher to ensure that the end purpose of a scientific endeavour is compatible with its values and goals (Kimmel, 1988: p. 42). Therefore, in conducting this type of study, moral conduct is of great importance. For instance, permission to access Multimedia Super Corridor status companies must be obtained and appointments need to be made with all knowledge workers prior to the interview session. In the dissemination of the results of this study, it is important that the names and positions of the respondents are not identified. For this reason and in order to maintain anonymity, subjects were coded. Interviewees in the study were identified by numbers, that is, R1 for respondent number 1, R2 for respondent number 2 and so on. The researcher also respected any obligations made to the participants, such as to provide them with the results of the current study when completed (i.e. abstract of the thesis).

In fact, from the perspective of realism, the strength of this approach is that it provides the researcher with a holistic understanding in investigating the current issues. This has been emphasised by Tsoukas (2000: p. 534), who stated that: “We are realist simply because reality is where it has always been, outside our heads. Insofar as we create structures through patterns of sustained interaction, from the micro-level of the small group right to the macro-level of global economic systems, we are confronted by real structures, which we only partially and often indirectly and unintentionally have helped create. Such structures cause us to form beliefs about them. In turn, our descriptions of these structures (more precisely, how we describe them) are matters which depend on the language-based institutionalised meanings of a community of actors have historically adopted.” To summarise, this paper began with the research design underpinning the current study, namely the exploratory and descriptive approaches. These designs were based on the paradigm of realism, which allows the researcher to see the world as it is, rather than becoming too subjective or too deterministic. This was then taken together with the method employed for the social science research, namely the triangulation method. It was hoped that this new revolution of research methodology used in any social science research could be regarded as
valuable methods, contributing towards rigorous results. In addition, an in-depth semi-structured interview is considered as a “deep” inductive approach that appears to be similar to ethnomethodological and phenomenological studies, and provides detailed observations of behaviour within a number of individual knowledge workers. In this view, the qualitative research offers a greater depth of information to complement and extend the earlier quantitative survey results. Thus, these methods definitely contribute towards the acquisition of detailed information, as normally required by all researchers. Furthermore, Hakim (2000: p. 32) has pointed out that one common linkage between qualitative and quantitative research is that the results of the two linked studies are sometimes presented in a single report.

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