



## Interpretivism in Information System (IS) Research

**JULIANA JOHARI**  
Department of Management and Marketing  
Faculty of Economics and Management  
Universiti Putra Malaysia  
E-mail: [juliana@econ.upm.edu.my](mailto:juliana@econ.upm.edu.my)

### ABSTRACT

This article discusses different approaches to studying Information Systems (IS) in organizations. However focus is given to interpretive epistemology, a well-established research paradigm in IS research today (Walsham, 2006). The emergence of interpretivism in IS research and the usage are discussed. This article also further articulates the importance of interpretivism in IS research. The research design that complements the interpretive research has also been discussed.

**Keywords:** Information System, Research, Interpretivism

Orlikowski and Baroudi (1991), following Chua (1986) suggested three approaches of studying information technology (IT) in organizations, namely positivist, interpretive and critical. According to Orlikowski and Baroudi (1991), the criteria adopted in positivist include formal propositions, quantifiable measures of variables, hypothesis testing and drawing of inferences about phenomenon from stated population's samples. Positivism also identified a set of descriptive studies in the positivist tradition. In other words, they accept the possibilities straightforward objective and factual accounts of phenomena with no explicit recognition of the problematic nature of such accounts, and often with no theoretical grounding. Positivist IS researchers assume that objective physical and social world exist independent of humans, and as such its nature can be apprehended, characterized and measured. That is why data analysis method normally used to discover causal law include sample surveys and controlled experiments are the primary data collection techniques, and inferential statistics.

Meanwhile, interpretive studies involve understanding the phenomenon subjectively. The criteria adopted in classifying interpretive studies were evidence of a nondeterministic perspective where the intent of the research was to increase understanding of the phenomenon within cultural and contextual situations; where the phenomenon of interest was examined in its natural settings and from the perspective of the participants; and where researchers did not impose their outsiders' priori understanding on the situation (Orlikowski and Baroudi, 1991, p.5). In other words, interpretive research does not predefine dependent and independent variables on the full complexity of human sense making as the situation emerges (Kaplan and Maxwell, 1994).

Also, the research method appropriate to generating valid interpretive knowledge is field studies, as these examine humans with their social settings. And as interpretive researchers avoid externally defined categories on phenomenon, then the in-depth experiment of field studies seem to be more appropriate. Walsham (1993) said that interpretive research methods in IS are aimed at producing and understanding of the context of the IS, and the process whereby the information system influences and is influenced by the context (p. 4).

---

Any remaining errors or omissions rest solely with the author(s) of this paper.

As far as critical epistemology is concerned historical data, ideology and contradictory nature of existing social practices are the criteria adopted in this study. Orlikowski and Baroudi (1991) distinguishes that an important distinction of the critical studies is its evaluative dimension. The critical researcher attempts to critically evaluate and transform the social reality under investigation. Unlike the two research perspectives discussed earlier, critical studies critique existing social systems and reveal any contradictions and conflicts that may be inherited (p.19). Meanwhile, because of the nature of this study, the research methods used mainly long term historical studies and ethnographic studies of organizational structure process and structure.

### **Interpretivism in IS Research**

The emergence of interpretivism could be traced back in the 70's when Boland (1979) first drew attention to the relevance of hermeneutics and phenomenology to IS research. Interpretive style of research has been a popular mode of research since by many IS researchers. This is because interpretivism encourages researchers to be more interpretive and inductive, rather than seeking to confirm or disconfirm hypotheses.

Controversially, Orlikowski and Boroudi (1991) claimed that interpretivism is a valuable approach to studying IS in organizations, or more strongly that it is a better method than positivism for this purpose. Likewise, Walsham (1995) agreed with the preposition, although positivism still remains the orthodox approach published in the mainstream IS journals, with positivism being the dominant perspective in IS research in early 1990's with the percentage of 96.8 per cent (interpretive counts for only 3.2 per cent. However, as Walsham (2006) quotes Mingers (2003), there is an increase in the number of interpretive IS research articles from 1993-2000, accounting to 12-17 per cent

Drawing from the work of Kling (1987), Giddens (1984) and Pettigrew (1990), Walsham (1993) described a general theoretical approach to IS research, adopting an interpretive approach in his study. He used this approach to provide detailed interpretations of three in-depth case studies of information systems in specific organizational and cultural contexts. Also, based on Giddens (1984) structuration theory, Orlikowski (1992) in her study provided an interpretation of various stages in the use of software tools from the perspective of the tool users.

Based on the previous research mentioned earlier, it is clear that interpretivism one of the epistemology for IS research in organization. Interpretivism is made even more important when the research revolves around the study of IS from different cultural context and also taking into account different perspectives of professionals in different organizations. Hence interpretive study would provide an excellent guideline as to how interview should be conducted or more importantly how the case studies are interpreted. This is because interpretive as the 'umbrella' term would assist in filtering participants' statements and actions through the lens of the researchers own subjectivity, and then produces a 'story' about the events that have occurred and some reasons for them (Walsham, 2001 p. 7).

### **Research Design**

According to Orlikowski and Baroudi (1991), case study is one of the primary research designs for IS research, besides laboratory experiments and surveys. In fact case study research is the most common qualitative method used in information systems (Orlikowski and Baroudi, 1991).

There are numerous definitions of case study. According to Eisenhardt (1989), case study by definition is a research strategy which focuses on understanding the dynamics present within single settings. Yin (1994) proposed that a case study is an empirical enquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (p. 13). It is also, according to Yin (1994) a research design where the research questions are more explanatory in nature and are most likely in the forms of "how" and "why". Thus an important thing to note is that case study can be positivist (Yin, 1994; Benbasat et. al, 1987), interpretive (Walsham, 1993), or critical, depending upon the philosophical stance chosen by the researcher.

Yin (1994) suggested that case studies can involve either single or multiple cases, and with numerous levels of analysis within a single study (embedded design). If IS research is to be focused on building theoretical framework and its implication towards different cultural settings, multiple case studies of

companies with distinctive identities (e.g. host country and industrial background) are deemed necessary. This is because a case study is well suited for the study of complex phenomena of IS in organizations, let alone multiple case studies.

Walsham (2006) argues that carrying out fieldwork as the fundamental basis for interpretive study, with interview as the main way of accessing the interpretations of informants in the field (pp. 323). He also outlines four elements of interpretive fieldwork; choosing style of involvement, gaining and maintaining access, collecting field data, and working in different countries.

Although it may seem that survey research reflects positivist orientation, whereby participants can only answer in terms of our questions and our categories, however there are ways to overcome the limitation in this methodology. A well-design survey will also include open questions that enable some insight into the participants' interpretations (Moser and Kalton, 1985). Hence the objective of having interpretivism as the philosophical stance underlying this research has not been affected by having a survey research as one of the methodologies.

It is always assumed that quantitative methods are associated with positivism and qualitative methods with interpretivism. Just as case studies could be both positivist (Yin, 1994), and interpretive (Walsham, 1993). As Nandhakumar and Jones (1997) puts it, it is important to note that reinterpretations could be attributed to the various sorts of data produced by different methods. As such, surveys and questionnaires may still be valid interpretive research methods.

However it is important to note that the qualitative data is the main concern for interpretive study. This is because the intention of interpretivism is to understand phenomena through the meanings that people assign to them, attempts to increase understanding of the phenomenon within cultural and contextual situations, and also where the phenomenon of interest will be examined in its natural settings and from the perspective of the participants. Hence interpretivism is the best solution for IS research.

Also, interpretive techniques allow participants to use their own words and images, and to draw on their own concepts and experiences. Interpretivism indeed is the best epistemology when the primary endeavour of the research is to describe, interpret, analyze and understand the social world from the participants' perspective and any rigid a priori researcher-imposed formulations of structure, function, purpose and attribution are resisted (Glaser and Strauss, 1967).

## Conclusion

In conclusion, it is important to note that the choice of philosophical assumptions underlying a particular research should justify the choice of research methodologies. This is to ensure a coherent research design. Although case study could well be deemed as qualitative study, the interpretations of this methodology could be of an objective (positivist) or subjective (interpretive) paradigm. Philosophical stance (epistemology) therefore is important in guiding the research, in the way it should be interpreted. Interpretivism is the epistemology that encourages researchers to be more interpretive and inductive, thus provide valuable platform for studying IS in organizations.

## References

- Nandhakumar, J. and Jones, M. (1997) Too Close for Comfort? Distance and Engagement in Interpretive Information Systems Research, *Information Systems Journal*, **7**:109-121
- Orlikowski, W.J. and Baroudi, J.J. (1991) Studying Information Technology in Organizations: Research Approaches and Assumptions, *Information Systems Research*, **2**(1):1-8.
- Walsham, G. (2006) Doing Interpretive Research, *European Journals of Information Systems*, **15**: 320-330.
- Walsham, G. (1995) The Emergence of Interpretivism in IS Research, *Information Systems Research*, **6**(4): 376-394.
- Yin, R.K (1994) *Case Study Research: Design and Methods*, (2<sup>nd</sup> edn). Sage: Thousand Oaks; Calif.

Note: Additional references quoted in the article can be obtained from the author.