Information Systems Research Relevance

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INTRODUCTION

Though there have been extended deliberations for making information systems (IS) research more relevant[1] and useful for IS executives, to our knowledge, there has been no empirical study which examines the *extent of relevance* in the current IS research. In this chapter, we analyze the *topical relevance* of 388 published academic articles in the three top IS journals: *MIS Quarterly (MISQ), Information Systems Research (ISR),* and *Journal of Management Information Systems (JMIS),* for a 5 year period from 2000-2004. We do this by examining their *fit* with the key issues for information technology (IT) executives identified by the latest Society for Information Management (SIM) survey. Based on our results, we make recommendations for making IS research more meaningful for practitioners.

BACKGROUND

The importance of relevance of IS research has been highlighted by a number of scholars. For example, Benbasat and Zmud (1999) quoting from the title of a 1990 Business Week article highlighted that useful research should not be "in the ivory tower, fuzzy, irrelevant and pretentious" (p. 3) rather it should be relevant for practitioners. In a similar vein, there has been a growing debate about crisis in the IS discipline. Scholars have identified various ways of resolving this crisis (Agarwal & Lucas, 2005; Benbasat & Zmud, 2003; Hirschheim & Klein, 2003; Lucas, 1999; Markus, 1999). Some of them have recommended the need for according greater sociopolitical and cognitive legitimacy by addressing the needs of all stakeholders of IS research (Aldrich, 1999). As IS professionals form a major part of the IS discipline stakeholders, an important way in which the IS discipline can address their needs is by making research more useful and relevant for them (Agarwal & Lucas, 2005; Benbasat & Zmud, 2003).

Scholars like Davenport and Markus (1999) and Benbasat and Zmud (1999) view the goal of "research relevance" as critical to the long term survival and success of the field. They suggested that IS researchers can make their studies more relevant by choosing research topics which are considered to be important by practitioners. Three of the four dimensions of relevance identified by Benbasat and Zmud (1999) pertain to the content of articles (interesting, applicable, and current) as shown in Table 1.

IS research has often been criticized for its failure to address the issues relevant for business practitioners (Saunders, 1998; Zmud, 1996a, 1996b). Researchers have been exhorted to incorporate greater relevance in their research, in addition to instilling research rigor, to make it more useful and applicable for practitioners (Benbasat & Zmud, 1999; Davenport & Markus, 1999). However to date, there have been no studies which assess the "extent of relevance" of current IS research. Over half a decade after the deliberations of senior IS researchers on the issue of instilling greater relevance in IS research, it is an opportune time to take stock of the practitioners' concerns in subsequent IS research. In this study, we address this vital issue about relevance in IS research in three ways. First, we investigate how relevant for practitioners is the current IS research? For doing this we analyze the topical relevance of the published IS research, which encompasses the dimensions of articles' content (interesting, applicable, and current). Second, we develop a measure called the journal relevance coefficient (JRC)

Table 1. Dimensions of research relevance (Benbasat & Zmud, 1999)

Category	Dimensions of Relevance	Description
Content	Interesting	Does IS research address the problems or challenges that are of concern to IS professionals?
	Applicable	Does IS research produce the knowledge and offer prescriptions that can be utilized by practitioners?
	Current	Does IS research focus on the current technologies and business issues?
Style	Accessible	Are IS research articles able to be understood (in terms of tone, style, structure, and semantics) by IS professionals?

which is used to assess the relevance of IS journals. Third, we provide specific recommendations for addressing the concerns of IS practitioners.

METHODOLOGY

For seeking an answer to our research question about the relevance of current IS research, we examine the *fit* of the relevant topics identified by the IS professionals, with the topics of research in the top three IS journals namely, *MISQ, ISR, and JMIS* for 5 years (from 2000-2004). We posit that the top three IS journals are a reflection of IS academic research.

The key issues identified in the sixth[2] formal survey by the SIM have been used as current concerns of IS professionals (Table 2) for conducting our analysis in this study (Luftman & McLean, 2004). The sixth formal survey was authorized by the SIM executive board, 9 years after the last formal survey was conducted in 1994 (Brancheau et al., 1996).

We analyzed 388 articles published during last 5 years (2000-2004) in the three top IS journals: 104 in *MISQ*, 111 in *ISR*, and 173 in *JMIS*. Based on the topics and the abstracts of the articles, we identified the dominant concern being addressed in each article. If the content matched with one of the top 20 concerns identified in the latest SIM survey (Luftman & McLean, 2004), it was grouped there, otherwise it was grouped into a 21st category: others. The *others* category indicates that the dominant theme of the article does not address any of the concerns mentioned in the top 20 concerns.

Table 2. IT management concern: Ranking of importance (Luftman & McLean, 2004)

Rank	IT Management Concern
1	IT and business alignment
2	IT strategic planning
3	Security and privacy
4	Attracting, developing, and retaining IT professionals
5	Measuring the value of IT investments
6	Measuring the performance of the IT organization
7	Creating an information infrastructure
8	Complexity reduction
9	Speed and agility
10	IT governance
11	Business process reengineering
12	Introducing rapid business solutions
13	Evolving CIO leadership role
14	IT asset management
15	Managing outsourcing relationships
16	Leveraging the legacy investment
17	Sarbanes-Oxley Act of 2002
18	Globalization
19	Offshore outsourcing impacts on IT careers
20	Societal implications of IT

DATA ANALYSIS AND DISCUSSION

To our knowledge, there are no known measures for analyzing the relevance of academic journals. For this study, to understand the relevance of journals, we followed a two pronged approach. First, we developed a measure called JRC to analyze the aggregate relevance trends of journals across the years. Second, we analyzed the data to understand the trends in terms of topics in IS research.

Journal Relevance Coefficient

The aim of the JRC is to understand the relevance aspect of the published articles in the three journals, in an aggregate way. For calculating JRC, we use the following methodology. First, we assign a weight to each of the 21 issues identified in the IT executive survey (Table 2). For simplicity we assign equal interval weights in the reverse direction of ranks, for example, the top ranked topic *IT and business alignment* is assigned a weight of 21, whereas the last ranked item *others* is assigned a weight of 1. Next, we multiply these weights to the corresponding values (or frequencies of articles). This gives us a rank weighted table across the years for each of the journals. Next we sum up the weighted value for each year for each journal. To calculate the JRC, we divide this value in each year for each journal by the maximum possible value that can be attained (i.e., assuming all the articles in that year address the top concern for IT professionals, a weight of 21). The resulting value gives the JRC for that journal, for that particular year. JRC expresses in a uniform way the extent of relevance being addressed by the journals in a particular year. In notational terms, this can be expressed as follows:

$$(JRC)_{j,y} = \frac{\sum_{i=1}^{n} x_i w_i}{N \sum_{i=1}^{n} x_i}$$

,where $(JRC)_{j,y}$ is the journal relevance coefficient for journal j (MISQ, ISR, or JMIS) for year y (2000-2004), n is the rank of topics identified as relevant for practitioners x_i is the number of articles for the ith rank and w_i is the weight assigned for i^{th} rank article and N is the total number of articles analyzed.

The JRC is a fair indicator of the relevance of published research in the journals and can be used to compare the *relevance* of the IS journals across the years from 2000-2004. Figure 1 shows the movement of relevance coefficients across the years for the three journals in this study: *MISQ, ISR,* and *JMIS*.

From the chart in Figure 1, we observe that *ISR* is cur-

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