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20 Years Old but Still a Teenager? A Review of Organizing Vision Theory and Suggested Directions

Completed Research Paper

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Abstract

Organizing vision theory, a native, 20-year old IS theory, provides a macro-level cognitive institutional perspective on how IT innovations are adopted, used, and diffused within and across organizations. As such, the theory addresses a core issue of the IS discipline and can help researchers answer senior scholars' repeated calls for more macro-level research. How have researchers in the past two decades, then, developed and leveraged this important theory? In this paper, we review the organizing vision literature, providing assessments of the depth and breadth of IT innovation diffusion research it has spurred. Our analysis suggests that literature the theory is at an intermediate developmental stage, at best. Based on our findings, we suggest future directions for organization vision theory. Our review approach can inform evaluations of other native IS theories.

Keywords: Systematic Review, Organizing vision, Macro level, Institutional Perspective, Adoption, Diffusion

Introduction

A research phenomenon of enduring interest to the information systems (IS) discipline is how and why information technology innovations diffuse within and across organizations (Grover and Lyytinen 2015). Many scholars have highlighted the importance of this topic and the need for more macro-level examinations (e.g., Agarwal and Lucas 2005; Baskerville et al. 2014; Lucas et al. 2007).

Organizing vision theory provides a macro-level cognitive institutional perspective on how IT innovations are adopted, used, and diffused within and across organizations. As such, organizing vision theory complements the predominant rational-economic perspective (Fichman 2004; Wang 2010). Human and organizational behaviors are not necessarily based on rational-economic decisions, as demonstrated in previous literature (e.g., Cyert and March 1963; Kahneman and Tversky 1979; Simon 1957). Organizing vision theory is also a good native IS theory. DiMaggio (1995) notes three types of insights offered by a good theory: generalizable laws, enlightenment, and narrative. Organizing vision theory offers each of them. Its central “law” lies in the proposition that “adoption and diffusion take place in the context of, indeed depend upon, essential institutional processes that manifest themselves in the creation of a collective image of the innovation” (Swanson and Ramiller 1997: 470). Yet, in DiMaggio’s perspective, “laws” are the low-hanging fruit of theorizing. Theories that offer enlightenment and narrative are rarer. Organizing vision theory enlightens in the notion of the “organizing vision” itself—a collective community idea about an IT innovation that draws upon and informs community members’ technology adoption and use. Its narrative lies in exposing via discourse how this collective community idea comes about and influences community members’ technology adoption and use.

Since Swanson and Ramiller’s ground-breaking article in 1997, how have researchers in the past two decades developed and leveraged organizing vision theory? In this paper, we take stock of the 20 years

of IT diffusion literature that builds and draws upon organizing vision theory. Based upon our analysis, we also offer further growth opportunities for the theory. To do so, we evaluate the status of organizing vision theory from two different angles: theoretical contributions and research phenomena. A primary goal in academia is to make meaningful theoretical contributions (Straub 2009) to theoretically and practically important research phenomena. To assess theoretical contributions of articles, we use Colquitt and Zapata-Phelan's (2007) framework for theoretical contributions—a framework that provides a time-tested systematic approach (Grover and Lyytinen 2015). To discover under-developed research phenomena, we holistically evaluate the literature through our own framework as organizing vision theory, like most theories, has its own focus. Our overall assessment from data analysis is that the literature based on organizing vision theory currently is at what Edmondson and McManus (2007) would call an *intermediate* level of development, at best.

This paper is structured as follows. We first briefly describe organizing vision theory and explain two frameworks we use in reviewing the literature; in doing so, we reference the articles we coded as examples to ease readers' understanding. We then describe our process for gathering organizing vision articles and explain how we analyzed them through content analysis. We present our results next, discuss our findings, and offer future directions. We conclude our paper with a brief discussion of our contributions and a summary of our research project.

Organizing Vision Theory and Evaluation Frameworks

Organizing Vision Theory

The major goal of organizing vision theory is to augment our understanding of how an IT innovation comes to be adopted, implemented, and used across a community of interested actors, such as companies and units within companies (Swanson and Ramiller 1997). Organizing vision theory revolves around the key construct of “organizing vision” introduced in the seminal article by Swanson and Ramiller (1997). An organizing vision is “a focal community idea for the application of information technology in organizations” (Swanson and Ramiller 1997). “These visions speak to what the ITs are about, the purposes they serve, and how to be successful with them. They try to tell the story of the technology and why it should be widely embraced. They arguably serve to propel the technology forward along its evolutionary path” (Swanson 2015: 15).

Organizing vision theory complements the traditional rational-economic paradigm for understanding IT innovation diffusion. By mostly taking the IT as the tool or proxy view (Orlikowski and Iacono, 2001), the rational-economic camp argues that effective and efficient IT innovations tend to diffuse across a community, while those that are less effective and efficient do not (Agarwal and Prasad 1997; Jiang and Sarkar 2009; Rogers 2003; Tornatzky and Klein, 1982; Weigel et al. 2014). This view also suggests that organizations with the “right stuff”, i.e., innovation-related resources and capabilities such as size, structure, knowledge, resources, management support, organizational compatibility, and competitive environment can realize higher economic returns to IT innovations adopted (Armstrong and Sambamurthy 1999; Bala and Venkatesh 2007; Cooper and Zmud 1990; Fichman and Kemerer 1997; Massetti and Zmud 1996; Mishra and Agarwal 2010; Nilakanta and Scamell 1990; Purvis et al. 2001; Zmud 1982; Zmud 1984).

On the other hand, by taking an ensemble view of technology, organizing vision theory argues that the diffusion of an IT innovation is also affected by the environment in which firms operate. Organizing vision theory suggests that even if an IT innovation is not inherently effective or efficient, it could diffuse widely due to institutional factors, of which the organizing vision is the most salient. For example, *ceteris paribus*, an IT innovation with a *coherent* organizing vision is more likely to be widely adopted than an IT innovation with an *incoherent* organizing vision (Currie 2004; Miranda et al. 2015a).

Over the past two decades organizing vision theory has been refined and extended although there is still significant room for improvement. Below, we describe the two frameworks we use to evaluate the depth and breadth with which subsequent empirical research has used organizing vision theory.

Framework for Assessing Theoretical Contributions

To understand the depth with which subsequent diffusion research has used organizing vision theory, we use Colquitt and Zapata-Phelan's (2007) taxonomy for analyzing theoretical contributions. The Colquitt and Zapata-Phelan's framework contains two dimensions: theory building and theory testing, as depicted in Figure 1. Editorial boards in general tend to view these two dimensions as approximately equal in importance and substantially more important than the third type of contribution a manuscript can offer—i.e., practical insights (Rynes 2005).

Colquitt and Zapata-Phelan's theory building dimension captures "the degree to which an empirical article clarifies or supplements existing theory or introduces relationships and constructs that serve as the foundations for new theory" (P.1283). We note that since there are levels in theories, such as grand theories and middle-range theories (Pinder and Moore 1979; Whetten et al. 1989), it is still appropriate to evaluate a single theory with this framework. Each point on the theory building axis represents a level of theory building with the five being the highest and thus most significant theory building. Their first point on the axis represents studies that replicate previous findings. For example, Reardon (2009) examines perceptions of an organizing vision in a new context, healthcare, by utilizing Ramiller and Swanson's (2003) four facets of an organizing vision. He confirmed the convergent and discriminant validities of the survey items in the new context. The second point on the axis is concerned with studies that empirically test relationships that were previously theorized. For instance, Currie (2004) examines the previously-theorized relationship between the coherence of an organizing vision and the diffusion of the technology the vision represents. She found that, as Swanson and Ramiller (1997) theorized, the incoherent organizing vision for application services provisioning (ASP) retarded the adoption process and eventually led to the demise of ASP.

The third point on the axis represents studies that refine existing theories by adding new incremental contributions. More specifically, studies on the third point offer a new "what" to an existing relationship or process. They also clarify theories by specifying how, when, where, and to whom a theory applies. To illustrate, Fayard et al. (2016) demonstrate that an organizing vision can be accepted and utilized differently by different organizations depending on the organization's "epistemic stance". This insight helps us understand why the same organizing vision might not equally impact different organizations. The fourth point on the axis represents studies that contribute significantly to theory building. Studies at this level try to understand uncharted research territory by examining new relationships and processes. For example, Wang (2008) found that different organizing visions influence one another's popularity. Although this study does not examine how or which aspects of an organizing vision impact the prominence of other organizing visions, it is still one of the pioneers in trying to understand the antecedents of an organizing vision's effectiveness. Another example study at the fourth level is Barrett et al. (2013). They found that the two seemingly separate components of an organizing vision, framing and ideology, are in fact related to each other. The fifth point on the axis also represents studies that make significant contributions to theory. Studies at this level propose a new construct or significantly develop and revise an existing construct, in effect drawing in future theoretical and empirical studies. For instance, Ramiller and Swanson (2003) identified an organizing vision's four aspects that practitioners pay attention to: interpretability, plausibility, importance, and discontinuity. In doing so, they also developed measures for those constructs, spurring future studies (e.g., Huang and Zmud 2010; Marsan et al. 2012a; Reardon 2009). Another example at this level of study is Miranda et al. (2015a). They not only introduced new structural properties of an organizing vision (e.g., visions-in-use) but also proposed and empirically examined an organizing vision's facets that impact IT diffusion (i.e., coherence, continuity, clarity, and diversity).

Colquitt and Zapata-Phelan's theory testing dimension represents "the degree to which existing theory is applied in an empirical study as a means of grounding a specific set of a priori hypotheses." (p. 1284). Their first point on the axis captures the lowest level of theory testing. Those studies are either inductive or build their supporting arguments for the hypotheses and predictions through logical speculations. For example, through a bottom-up inductive approach, Tona et al. (2016) examine how champions identify new ideas and the sources that influence their beliefs about a new technology. An example study that uses logical arguments for theory testing is Miranda et al. (2015b). It is likely that the novel concept IT

decentralizability led them to build logical speculations for their hypotheses that examine the impact of IT decentralizability on the relationship between IT discourse and IT diffusion.

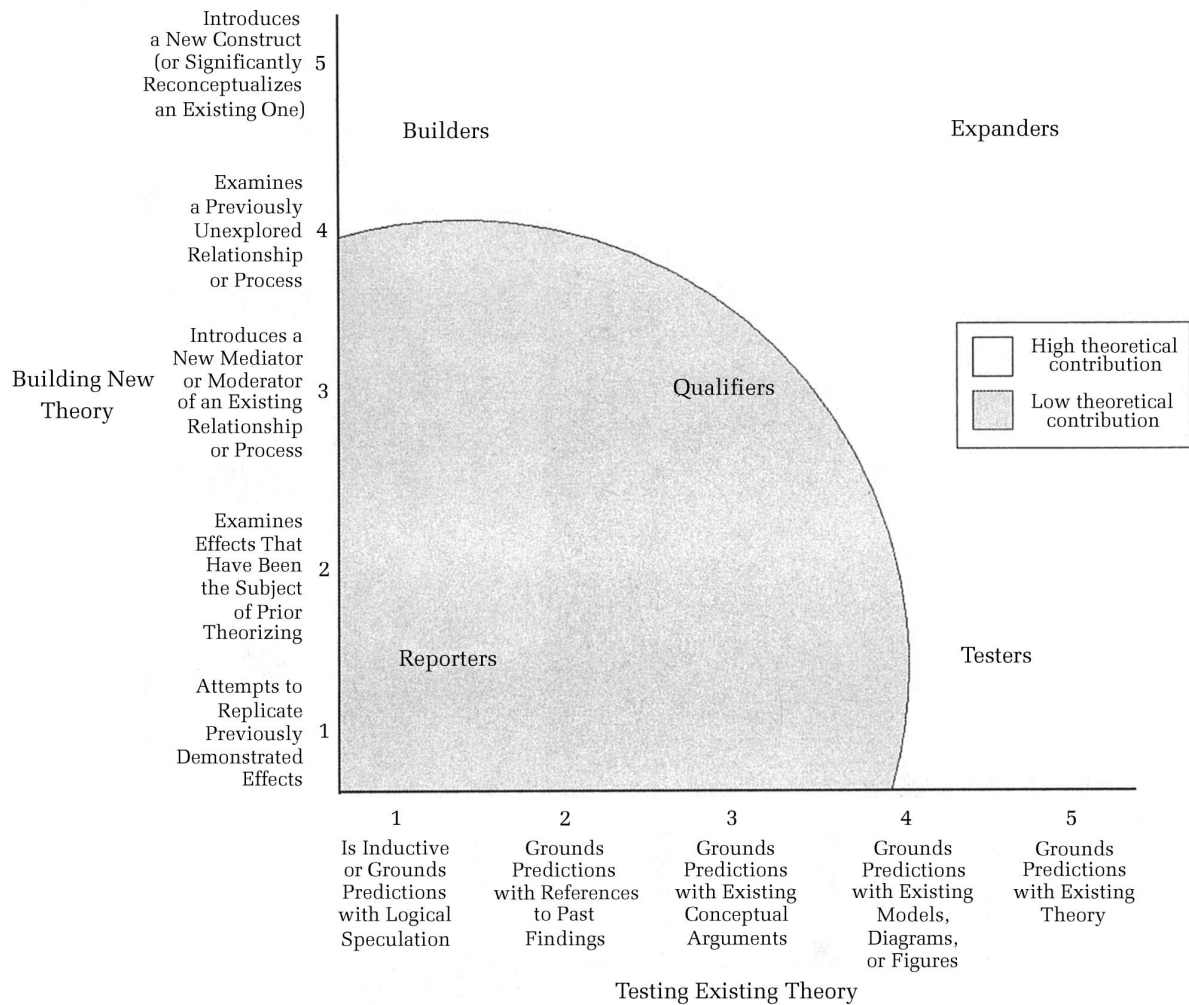


Figure 1. Taxonomy of Theoretical Contributions

(Source: Colquitt and Zapata-Phelan (2007: 1283))

The second point on the axis represents studies that use past findings as their supporting arguments for hypotheses. These studies simply reference previous findings without clearly specifying the underlying logics or circumstances. We did not find any organizing vision studies that belong to this theory testing category. The third point on the axis represents studies that ground hypotheses in arguments and relationships generated by previous conceptual theory papers such as those found in *Academy of Management Review (AMR)* and in the *MIS Quarterly's Theory and Review* section. Articles at this theory testing level borrow the underlying reasons for their hypotheses from previous conceptual theory studies. In the organizing vision literature, we found one such study: Wang (2009). When justifying the relationship between the prevalence of a business problem and an organizing vision that represents a solution technology, Wang leverages the theoretical arguments constructed by March and Simon (1958), Cohen et al. (1972), and Swanson and Ramiller (1997). Wang's (2009) other hypothesis is also similarly justified by utilizing an analogy grounded in the ecology literature.

The fourth point on the theory testing axis represents studies that build hypotheses based on models, diagrams, and figures—e.g., the dual model (Kim and Son 2009). According to Weick (1995), hypotheses rooted in models, diagrams, and figures are the closest to theories but lacks sound and convincing logical arguments. We did not find any organizing vision studies that belong to this theory testing category, however. The fifth point on the axis represents studies that propose hypotheses grounded in existing theories. For example, Sun and Wang (2012) ground their hypotheses in organizational ecology and scale-free network theories in examining why some organizing visions

become popular while other do not. They found that legitimization and scale-freeness of the cloud computing community are related to the ascendance of the cloud computing organizing vision. Competition is related to the decline of the cloud computing organizing vision.

The Five Types of Theory Contributions

Based on theory building and testing axes, Colquitt and Zapata-Phelan (2007) proposed five discrete article types, or five theory contribution types: reporters, qualifiers, testers, builders, and expanders (see Figure 1). Reporters are relatively low on both theory building and testing. They replicate existing studies and examine relationships already theorized in previous studies. Reporters are also inductive studies or ground their hypotheses and predictions in logical speculations and previous empirical findings. For example, in his constructive replication study, Reardon (2009) examines how the four facets of an organizing vision uncovered by Ramiller and Swanson (2003) would hold in a healthcare setting.

Qualifiers have relatively low or moderate levels of theory building and testing. These studies qualify existing variance and process theories (Markus and Robey 1998) by specifying new where, how, who, and when a theory operates and by providing new independent and dependent variables. Regarding theory testing, we expand the original boundary of qualifiers to include studies that are inductive and ground hypotheses in logical speculations or in previous findings—i.e., theory testing level 1 and 2. There are two reasons. First, the label “qualifier” indicates that the spirit of this category should be refining and clarifying theories. Surely, a study with a low level of theory testing (here, theory testing level 1 or 2) can refine and clarify, for example, by proposing and examining a new independent variable. Second, it is likely that due to Colquitt and Zapata-Phelan’s scoring system (see p.1289) and the nature of the papers in *AMJ*, there was no study that scored a 3 on theory building and a 1 or 2 on theory testing. A qualifier in the organizing vision literature is Fayard et al. (2016), which specifies though an inductive study design where an organizing vision might not work in diffusing IT innovations.

Testers are low on theory building and high on theory testing. These studies solidly ground their hypotheses in figures, diagrams and existing theories and replicate previous studies in new contexts or test conceptually theorized relationships. We did not find any testers in the organizing vision literature. Builders are high on theory building and low on theory testing. These studies examine unexplored relationships and processes, propose new constructs, and significantly conceptualize existing constructs. While doing so, builders take inductive study designs and rely on logical speculations for hypothesis building. For example, with a positivistic inductive study design, Miranda et al. (2015a) identified four facets of an organizing visions and examined their impact on IT diffusion. Expanders are high on both theory building and theory testing. These studies also study unexplored relationships and processes, propose new constructs, and significantly conceptualize existing constructs. However, expanders build their hypotheses based on figures, diagrams and existing theories. To illustrate, with the hypotheses rooted in organizational ecology and scale-free network theories, Sun and Wang’ (2012) explored the uncharted territory of how organizational ecology constructs influence organizing vision prevalence.

Framework for Understanding Research Phenomena in Organizing Vision Literature

To understand the breadth of research phenomena investigated using organizing vision theory, we developed our own framework through a mixture of a top-down and a bottom-up approach. We initially based our framework on the phenomena in the Information Systems field described in Benbasat and Zmud’s (2003) nomological net. As we read through the organizing vision literature, especially the ones we identified for analysis, we surfaced organizing vision specific phenomena and thus customized and refined our initial framework accordingly.

The first phenomenon we observed was the *nature of organizing visions*. Particularly, the papers in this category examine organizing visions’ components (e.g., Wang and Ramiller 2009), structure (e.g., Barret et al. 2013; Ramiller and Swanson 2003), and creation/evolution (de Vaujany et al. 2013). An

exemplar study is Wang and Ramiller (2009). They identified prominent knowledge types (i.e., components) that constitute an organizing vision across three developmental stages of IT diffusion.

We also noticed articles that examine the *impact of organizing visions on IT diffusion*. IT diffusion can be understood as a process—e.g., adoption and post-adoption (Cooper and Zmud 1990; Swanson and Ramiller 2004), and understanding IT post-adoption, which includes IT assimilation, is as important as IT adoption (Fichman 2000; Jaspersen et al. 2005). We thus created two separate categories for IT diffusion in our framework: organizing vision impact on IT adoption and organizing vision impact on IT post-adoption. An exemplar study that examines IT adoption is Marsan and Pare (2013). Through interviews with adopters and vendors, they identified factors that impact the adoption of open source software in healthcare. Those factors include organizing vision characteristics such as attractiveness of an organizing vision. An exemplar study that examines IT post-adoption is Hirschheim et al. (2012). They examine how the structure of an organizing vision at early stages impacts institutionalization of the technology that the organizing vision represents.

Finally, we surfaced a stream of research that examine the factors that impact organizing visions—i.e., *antecedents of organizing visions*. For example, Marsan et al. (2012a) demonstrate that IT specialists' profiles and their experience with a technology impact how they perceive the organizing vision for the technology. Swanson (2010) discusses how consultancies contribute to the creation and evolution of organizing visions. Our final framework for organizing vision research phenomena includes four categories: organizing vision nature, organizing vision impact on adoption, organizing vision impact on post-adoption, and impact on organizing visions.

Methods

Data: Organizing Vision Literature

We conducted a thorough literature review on organizing visions, beginning with the literature review table featured in Miranda et al. (2015a). We first reviewed articles that cited Swanson and Ramiller (1997) according to Google Scholar. Since Swanson and Ramiller (1997) is the seminal paper, most organizing vision articles are likely to reference the paper. We particularly paid close attention to the leading authors in organizing vision theory (e.g., Swanson) as did Scott (1987) when he was reviewing for institutional theory. We also searched the AIS Electronic Library (AISel) in case we were missing any. We used diverse search strings by using the term organizing vision and using the names of leading authors. We back-tracked through potentially-relevant papers while reading the already-identified papers. Finally, we solicited manuscripts from the AIS community via an email.

When selecting papers to be included in this project, we looked for whether a paper develops, refines, or utilizes an organizing vision construct. We also included those papers that use organizing visions as their theoretical framework and background (e.g., Fayard et al. 2016). We did not, however, include papers that mention organizing visions in passing (e.g., Boland et al. 2007). Finally, conference papers included were limited to the completed research papers presented at *International Conference on Information Systems (ICIS)*—we did not find any organizing vision related papers presented at *Pacific Asia Conference on Information Systems (PACIS)*. In total, we found 49 papers between 1997 and April 2017. From this set, we excluded three papers that used the theory differently than the seminal paper did—e.g., conceptualizing an organizing vision as a “company” rather than “community” vision. We also excluded Swanson and Ramiller (1997) as our goal is to understand how organizing vision theory has developed since. For our data analysis, we thus retained 45 papers. A list of these papers can be found at <http://inchank.sgedu.site/PapersReviewed.pdf>.

Article Coding

Based on Theoretical Contributions

One author of this paper coded all 45 identified articles using Colquitt and Zapata-Phelan's theoretical contribution framework (see Figure 1). A third-party researcher who was well-versed in organizing vision literature also coded 10 random articles, and the researcher's codes were used to refine our coding

scheme. We also coded conceptual theory papers in that those papers also attempt to build theory and ground their propositions, for example, in previous findings and existing theories.

Each article received two scores. We first assigned an integer ranging from 1 to 5 to each of the 45 articles based on their level of theory building. We then assigned an integer ranging from 1 to 5 to each of the 45 articles based on their level of theory testing. When evaluating an article's level of theory building, we compared the article with the existing body of knowledge on organizing visions at that particular time. An article's level of theory testing was assessed based on how well the hypotheses and propositions were grounded; that is, the supporting arguments or theory for the hypotheses or propositions did not have to come from the organizing vision literature.

Some articles examined organizing vision constructs or relationships while examining other theories (e.g., Swanson and Ramiller 2004). In this case, we focused on the organizing vision aspect of the article. When there were different levels of theory building or theory testing in an article, we accessed the core of the article and assigned scores accordingly (Colquitt and Zapata-Phelan 2007), although the majority papers stayed at one level of theory building and theory testing.

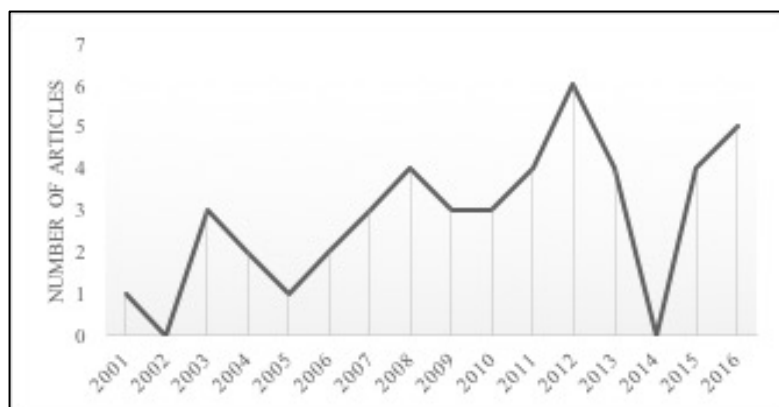
After the coding for theory building and testing was complete, we used the scores to assign each article to one of the five theory contribution types. We largely followed Colquitt and Zapata-Phelan's assignment procedure. Reporters received a 1 or 2 on theory build and theory testing. Qualifiers received a 3 on theory building and a 1, 2, 3 on theory testing. Testers would have received a 4 or 5 on theory building and a 1 or 2 on theory testing. Builders received a 4 or 5 on theory building and a 1 or 2 on theory testing. Finally, Expanders received a 4 or 5 on theory building and a 4 or 5 on theory testing.

Based on Research Phenomena

The same author coded all the 45 identified articles based on the research phenomenon framework described in an earlier section. The four categories are organizing vision nature, organizing vision impact on adoption, organizing vision impact on post-adoption, and impact on organizing visions. There were articles that examined multiple phenomena. Such an article was assigned to multiple categories. For example, Miranda et al. (2015a) not only identify the components and structure of an organizing vision but also examine how those structural properties impact IT adoption. The article was thus assigned to both organizing vision nature and organizing vision adoption.

Results

Figure 2 shows the trend of the organizing vision article count. Although there is a sudden decrease in 2014, in general there is an upward trend.



Note: Swanson and Ramiller (1997) is excluded.

Figure 2. Organizing Vision Article Count by Year

We divided the 45 articles equally into three periods using their publication dates (Table 1). The first period runs from the publication month of Swanson and Ramiller (1997), October 1997, to November

2008. We were able to cut the period at November because of the papers published in *ICIS* proceedings. *ICIS* is held in December, and *ICIS* papers (like most conference papers) tend to be more recently conceived than most journal publications are at any given time. The second period runs from December 2008 to November 2012, and the final period runs from December 2012 to April 2017. We also analyzed the data by having three balanced periods and by including Swanson and Ramiller (1997). But the trends and patterns remain largely the same and thus excluded in this paper.

Table 1. Periods and Data Types Used

Period	Article #	Period Length	Data Type used in Empirical Article (%)
Oct 97 - Nov 08	15	Approx. 11 years	Qualitative: 73%; Quantitative: 18%; Mixed: 9%
Dec 08 - Nov12	15	Approx. 4 years	Qualitative: 85%; Quantitative: 15%; Mixed: 0%
Dec 12 - Apr 17	15	Approx. 4.5 years	Qualitative: 86%; Quantitative: 0; Mixed: 14%

Trends and Patterns in Depth of Theoretical Contributions

Figure 3 displays the trend in theory building and theory testing in the organizing vision literature in the past 20 years. The first period sees the most significant theory building effort, and then the level of theory building goes down afterwards.

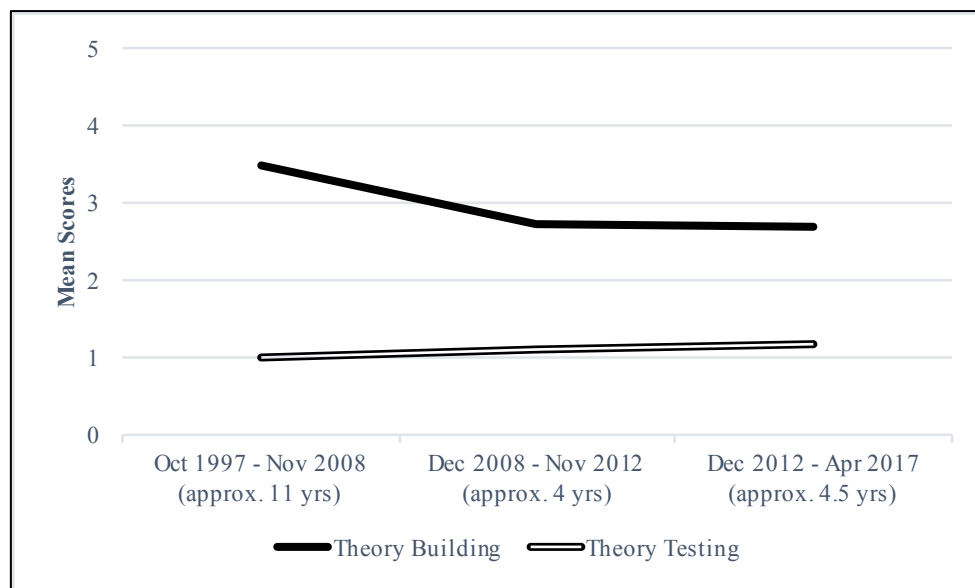


Figure 3. Trend in Theory Building and Testing in Organizing Vision Literature

Overall, there is a downward trend in theory building in organizing vision literature. Regarding theory testing, organizing vision literature primarily employed inductive studies or ground their hypotheses, proposition, and predictions primarily in logical speculations (Category 1 in Theory Testing). This pattern is clearly displayed in Figure 3—a low mean score to begin with and a minimal increase in theory testing. In fact, inductive studies (e.g., Currie 2004) account for 75% of the articles across the three periods, and studies with logical speculations account for 20% of the articles across the three periods.

Figure 4 reports the trend of the five discrete contribution types. Reporters are one of the two most popular types in each period, and the number of reporters increased significantly in the most recent period. On the other hand, we see almost the opposite trend in qualifiers. Qualifiers' fall from grace is noticeable. Overall, we see fewer builders and expanders than reporters and qualifiers. Especially, the first and the only expander appeared in the latest period. What is conspicuously missing across the periods is testers, which would score a 4 or 5 on theory building and a 1 or 2 on theory testing.

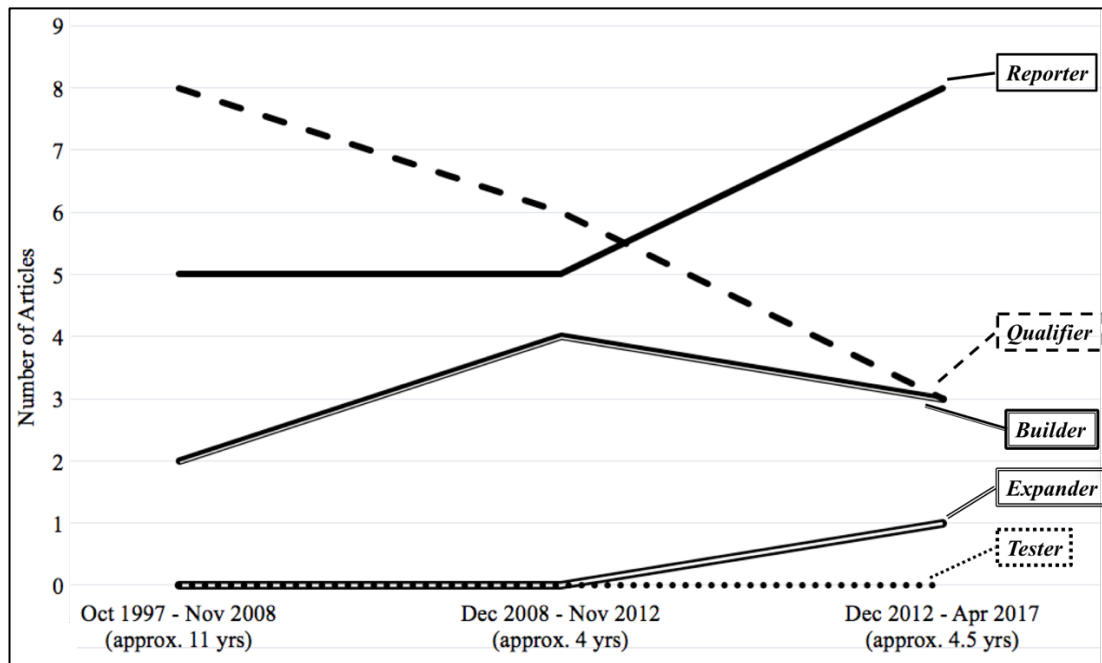


Figure 4. Five Theory Contribution Types across Time Periods

Trends and Patterns in Breadth of Research Phenomena Examined

Figure 5 shows research phenomena organizing vision researchers have spent their effort on in the past two decades. The nature of organizing visions has been relatively heavily examined, and it picks up speed in the latest period. On the other hand, research on organizing visions' impacts on IT post-adoption shows the opposite trend. It is also the least researched phenomenon. It is also noticeable that when adoption research increases, post-adoption research decreases. Figure 5 also reveal that we need more studies on antecedents of organizing visions.

Discussion

By conducting a systematic review of the organizing vision literature, we have observed three concerning trends and patterns in the organizing vision literature. First, there are fewer than 50 articles that we can hail as an organizing vision paper, even though the theory has been around nearly 20 years. It is also evident in Swanson's lament:

“My own research has promoted the concept of the organizing vision as a way to understand certain IT innovation in an institutional context, and while others have built on this work, the cumulative effort has not yet opened a gate through which many are attracted to enter and join” (Swanson quoted in Baskerville et al. 2014: 298).

In contrast, the literature on the technology acceptance model (TAM) reached maturity under 20 years already calling for issues and reflections on the theory in the 2007 *J AIS* special issue (Hirschheim 2007). In addition, institutional theory (Meyer and Rowan 1977; Zucker 1977) reached its adolescence in about 10 years (Scott 1987). We are not suggesting that every theory should be mature within a certain amount of time. We do, however, argue that a theory that addresses a core of the discipline and can answer senior scholars' repeated calls should receive more attention.

Second, we observed only a moderate level of theory building overall (mean rating 2.8 out of 5) and a downward trend across the time periods (Figure 3). Seeing more reporters and qualifiers than builders and expanders (Figure 4) is part of natural progression of theory. Oftentimes, ground-breaking research is followed by incremental research contributions. We, however, note senior scholars' recent calls for “bold theorizing” that pushes IS research to the “edges” (Grover and Lyytinen 2015), which can contribute back to our reference disciplines (Yoo 2013). Such bold theorizing is done not by reporters or qualifiers but by builders and expanders.

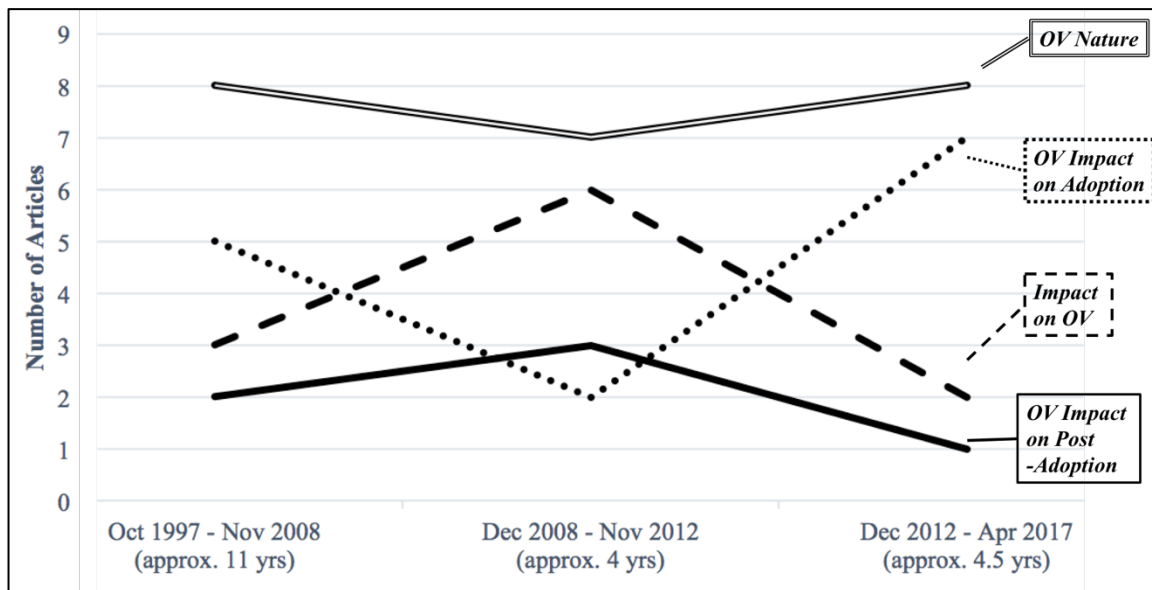


Figure 5. Organizing Vision Research Phenomena across Time Periods

Finally, we observed a low level of theory testing (mean rating 1.13 out of 5) with heavy reliance on qualitative data (73%, 85%, 86% respectively across the three periods; see Table 1). The low mean rating of theory testing comes from the large proportion of inductive studies (75% out of total) as well as from the studies with hypotheses and predictions rooted in logical speculations (20% out of total)—that is 95% of the studies score a 1 on theory testing. Inductive studies are excellent in that they have a potential to provide novel empirical regularities that can push IS research to the edges (Grover and Lyytinen 2015). Unfortunately, the majority of inductive studies in the organizing vision literature score low on theory building—76% of the inductive studies score a 1, 2 or 3—leaving room for stronger effort for theory building. Moreover, for a theory to grow, we also need quality deductive studies along with quantitative data and analysis (Edmondson and McManus 2007), such as testers and expanders. Weber (2004; xi) also echoes this message arguing that “[d]ifferent research methods and different data-analysis methods have different strengths and weaknesses. They provide us with different types of knowledge about the phenomena that are our focus. . . . We also need to have a deep understanding of the different sorts of knowledge we obtain using different research methods.” We found zero testers and only one expander in the organizing vision literature (Figure 4). Another related concerning pattern is that although there are deductive studies in the organizing vision literature, most of them rely on logical speculations. Only 5% out of total grounds their hypotheses and predictions in existing conceptual arguments or existing theories.

All things considered, we believe organizing vision theory, as it is, is at what Edmondson and McManus (2007) would consider an intermediate theory at best. How do we progress from here? In the next section, we discuss the efforts we can make with two research phenomena that are currently either insufficient or consciously missing from Figure 4—phenomena that can help us produce more testers, builders, and expanders.

Towards Strong Theory Building and Testing: Two Suggested Phenomena

Organizing Visions’ Impacts on Vendors

The three key functions that an organizing vision performs in IT innovation diffusion is to facilitate interpretation of an IT innovation, to legitimize the technology, and to help mobilize resources around it (Swanson and Ramiller 1997). While those three functions are performed, vendors play a key role. They are a major contributor to the collective interpretation of IT innovations and put forward and refine the reasons why adoption of a certain IT innovation is necessary and useful for prospective organizations (Currie 2004; Wang and Ramiller 2009). Vendors are also a key player in resource

mobilization by creating and promoting new technologies along with creating buzzwords (Swanson 2012). Clearly, unless there is a good set of technology vendors, an organizing vision—along with the technology it represents—is not likely to be sustained for long (Wang and Swanson 2007). Then,

- Why and how do vendors, who play such crucial roles, decide to contribute to a certain organizing vision in the first place?
- Why and how do they continue to contribute to a certain organizing vision?
- Does the structure of an organizing vision at early stages have any impact on vendors' decision to participate?
- When is the best time for them to stop making contributions to an organizing vision?

We believe addressing questions like above has a potential to generate builders and expanders. Those questions address relationships both theoretically and practically important. They also have a potential to generate ground-breaking constructs such as aspects or structures of an organizing vision that help vendors' decision-making on market participation and exit. We also note that the IT diffusion literature in general is also largely silent on the factors that impact vendors. The IT diffusion literature is predominantly interested in IT adoption, diffusion, and post-adoption (Fichman 2000; 2004; Lucas et al. 2007). There is a line of research at the individual level that examines what impacts software developers' intentions and behavior, however (e.g., Hertel et al. 2003; Kim et al. 2016).

As we noted earlier, organizing vision theory could also benefit from welcoming more testers along with expanders. That is, more studies grounding their hypotheses and predictions in existing theories and models should be conducted. A researcher could choose to leverage a theory from a reference discipline. For example, a study might examine one of the potential research questions listed above: Why and how do vendors continue to contribute to a certain organizing vision? In this case, theories or models rooted in Relational Marketing such as the dual model (Son and Kim 2009) or even theories in Organizational Behavior such as escalation of commitment (Staw 1997) could be useful. A vendor may continue to contribute because it is actually beneficial for them or they have invested so much in the technology the organizing vision represents (e.g., switching cost)—an explanation that could be offered by the dual model. As researchers apply referent discipline theories, we encourage them to strictly follow the guidelines specified in Grover and Lyytinen (2015). For instance, researchers should “delineate the theoretical assumption and boundary conditions before selecting the theory and be far more aggressive in challenging the theory or developing new concepts in light of the IS phenomena being studied” (p. 290).

Organizing Visions' Impacts on IT Post-adoption

IS researchers have put so much effort in trying to understand how individuals' IT adoption decisions are made (Lucas et al. 2007; Hirschheim 2007). This is evident when we see the amount of citation generated by Davis (1989). Although not as much, IS researchers have also placed a good amount of effort in trying to understand organizations' adoption decision (Bui 2015; Fichman 2000; 2004). What we need the most for both theory and practice now is to understand organizational and individual behavior after the adoption decision is made by the organization (Baskerville et al. 2014; Jasperson et al. 2005). Lucas et al. (2007: 208) echoes this message saying, “[t]oday, the overriding concern is that of enabling firms to more fully leverage these huge investments in IT”.

When innovating with information technologies, organizations go through multiple stages, such as comprehension, adoption, implementation, and assimilation (see Wolfe 1994 for review). Swanson (2003) briefly touched on the role of organizing vision at the implementation and assimilation stages. There are also articles that focus on the impact of organizing visions during the post-adoption stages (e.g., Marsan et al. 2012b; Standing et al. 2013). These studies, however, simply focus on “whether” an organization vision impacts “use.” A notable exception is Hirschheim et al. (2012), who examine how the “structure” of an organizing vision impacts “institutionalization” of an IT innovation that the vision represents. All in all, what is largely missing is a deeper engagement with the organizing vision constructs and its impact on IT innovation at different stages.

We argue that addressing these shortfalls can generate builders and expanders. For example, an enduring IT post-adoption problem is an “assimilation gap”—the difference between adoption and actual use (Fichman and Kemerer 1999). Potentially promising related research questions are

- Is there a certain type of organizing vision that is more prone to or immune to assimilation gaps? If so, how is it structured?
- How do facets of an organizing vision—e.g., importance of a vision (Ramiller and Swanson 2003)—help narrow an assimilation gap?
- Which actors in an innovation community (Wang and Ramiller 2009) can play an important role in narrowing an assimilation gap and how?
- Which knowledge types (Wang and Ramiller 2009) are useful in narrowing assimilation gaps and how?

Researchers can also produce more testers as well as expanders in this post-adoption domain. For example, the notion of loosely coupled systems (Weick 1976) could be utilized to build a hypothesis examining the impact of organizing vision facets on assimilation gaps. For a loosely coupled organization, such as a university, the interpretability of a vision could play a crucial role in narrowing the assimilation gap. The individuals and departments have more discretion, and thus their technology use will be less directed by the central IT department but by their interpretation of the technology.

Contributions and Limitations

In this paper, we have made three key contributions. First, we have systemically reviewed a theory that addresses a core of the IS discipline and that can answer senior scholars’ repeated calls. A core question the IS field strives to address is how to effectively deploy information systems in organizations (Grover and Lyytinen 2015; Lucas et al. 2007). To improve our knowledge in this domain, senior scholars repeatedly called for more macro-level attention that takes into account, for example, institutional environments and organizational culture (e.g., Agarwal and Lucas 2005; Baskerville et al. 2014; Lucas et al. 2007). Our systematic review has offered a platform upon which researchers can develop a collective body of knowledge on the promising organizing vision theory. Second, based on our evaluation of organizing vision theory, we have further provided future directions that can address the current insufficiencies in the theory. Our suggestions are by no means exhaustive. We believe, however, that organizing vision theory, as well as the IS discipline, can benefit significantly from the types of research we are calling for. Finally, we have introduced a theory evaluation framework that can uncover the “empirical regularities” in the ocean of knowledge (Grover and Lyytinen 2015: 285). This framework can also serve to systematically evaluate the “healthy, hardy” set of native IS theories (Straub 2012: 10).

Our findings, however, should be interpreted with the following limitation in mind. Apart from *ICIS*, our sample did not include conference papers or working papers. Future research could expand the review scope and provide a more comprehensive evaluation and picture of organizing vision theory.

Conclusion

Organizing vision theory was conceived in 1997. It has been nearly 20 years. Our review reveals, however, that the theory still has much room for improvement. In this paper, we have offered a systematic review that can serve as a platform for further improvement in organizing vision theory; we have also provided some future directions that can serve to extend the theory and to provoke further thoughts. We believe unearthing empirical regularities in an existing theory can help strengthen one of our most valuable assets: native IS theories.

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