Relevance Versus Rigor in IS Research: Need to Introduce A New Institution

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The need to improve relevance of IS research has been felt for quite some time. This study looks at the previous solutions to improve relevance of IS research to practitioners and offers insights on the reasons as to why they have not been successful. The study proposes introduction of a new institution to help practitioners access IS research and use it to their advantage. This new institution calls for IT executives to be trained in IS research so that they can extend the basic IS theories to fit the context of their organizations. Possessing intimate knowledge of the context, the executives should be in a position to find the appropriate missing links to add to the core model to create a new model that suits the needs of their organization.

INTRODUCTION

The debate on rigor versus relevance has been raging in the Information Systems literature for more than two decades (Lytinnen, 1987, Benbasat & Zmud, 1999, Rosemann & Vessey, 2008). The protagonists of relevance have repeatedly raised concerns that IS research has lost touch with the needs of the practitioners (Robey & Markus 1998, Davenport & Markus 1999, Lee & Mohajeri 2012) and MIS Quarterly dedicated its March 1999 issue to the relevance versus rigor question in IS research. Regarding the importance of relevance to IS field, Bhattacherjee (2001) argues that relevance helps define what is valid knowledge, while creating a common body of knowledge and developing a coherent identity for the discipline. Similarly, Dubin (1969) states that in any applied field, which IS claims to be, the theory faces reality when actually put to use. Thus, the advocates of relevance, IS researchers as well as practitioners, consider the usefulness of IS theories to the practitioners the reason for the existence of IS field as a valid body of knowledge. Some IS researchers disagree with this assessment and put rigor as the primary objective of IS research (Lyytinen, 1999, Lanamaki, Stendal, Thapa, 2011).

The focus of the current debate on rigor versus relevance has essentially been centered on two points of IS research, defining the problem and the usefulness of the results of the research. On both points there is considerable divergence of opinion as to the primacy of the rigor versus the relevance perspective. In addition, this debate is bringing into question the entire epistemology of the IS field. There appears to be disagreement on who is it that holds the upper hand in defining what is actual "knowledge". Is it the reviewers of IS journals or the practitioners? If the practitioners completely ignore the work done by IS researchers, is that research still a valid body of knowledge even if it has the endorsement of the IS

journal reviewers? Thus, the issue of validation now forms the basis or the converging point of the rigor versus relevance debate.

The beginning of the debate has its roots in the observations by practitioners that they do not consider that IS research addresses their needs (Grover & Sabherwal, 1989, Keen, 1991, Galliers, 1994, Saunders, 1998, Pearson, Pearson, Shim, 2005). Also, while the debate has been going on for years, not much has actually changed in terms of improving the relevance of IS research to practitioners (Lee & Mohajeri 2012, Rosemann & Vessey, 2008). Though it might be debatable as to how decisive relevance or its lack could be to the future of the IS field, many IS researchers do tend to support the view that without taking practitioner concerns into account it will be difficult for IS field to survive and evolve into a respectable body of knowledge (Benbasat & Zmud, 1999, Lee 1999, Young, Darroch, Toleman, 2006, Rosemann & Vessey, 2008). This study reviews the rigor versus relevance debate and investigates the reasons as to why previous solutions to improve relevance of IS research have not been effective. We propose a new institution that could help bridge the gap between researchers and practitioners and make IS research more relevant.

PRACTITIONER CRITICISM OF IS RESEARCH

As to the relevance desired by the practitioners from IS research, Price (1995), offers the end user perspective in evaluating the impact of IS research on practitioners. Price observes that people working in organizations are mainly interested in enhancing their effectiveness and the effectiveness of their organizations. They need to a) recognize important issues facing them, b) understand the issues more completely, and c) act with respect to that understanding. Further, given the action-oriented environment of organizations, they need to accomplish these objectives in as little time as possible. Accordingly, Price offers two major factors in deciding the value of a research article: a) does it provide new insights that will broaden his ability to understand what is happening to the organization where he works, and b) does it provide him with a tool for influencing someone else in the organization. After going through articles published in a major research journal, Price reported being left dissatisfied as he found the published research distant from the reality of real life and lacking richness of the situations. Similar sentiment was also uncovered by Pearson, Pearson & Shim (2005) when they investigated the relevance of IS research by surveying senior level and mid-level IT executives and software professionals. Their respondents reported that they found IS research to be way too abstract and not current in its nature. Further, they felt the producers of the research articles lacking in real world concerns.

SOCIAL SCIENCE FIELDS HAVE COMMON RELEVANCE ISSUES

Situation in not much better in other areas of social sciences. Researchers in reference fields such as Organizational Behavior and Management are facing similar dilemma. Thomas and Tymon (1982) offer five criteria of relevance or practical usefulness which are: a) meaningfulness, goal relevance, operational validity, innovativeness, and cost of implementation. Shrivastava (1987) argues that the standards for judging the usefulness of research depend on the needs of the users, and the ways in which the research results are used. Even a casual perusal of management literature is enough to convincingly establish that the requirements recommended by the above-mentioned researchers are not being met (McNatt, Glassman & Glassman, 2010). Further, they attribute the researcher practitioner gap to institutionalized divergence in the mindset of the researchers and practitioners where each side has embraced its own view of the world of management.

It might appear that such a gap between researchers and practitioners should not exist in IS literature because much of the IS research being conducted has been concerned with the ongoing relations among information technology, individuals, and organizations (Orlikowski and Baroudi, 1991). However, somehow the link between the actual practitioner requirements and IS research agenda has been mostly absent (Lee & Mohajeri, 2012). In addition to the reasons offered by the practitioners above, it could be that the style and tone of IS research articles is inhibiting their practical relevance, a phenomenon

common to social science research. IS professional tend to prefer articles that are: shorter, use exhibits liberally, avoid turgid prose, focus more on contextual description and less on literature review and methodology description, and provide more prescriptions (Benbasat and Zmud, 1999). Theoretical reductionist research produced by IS academia that emphasizes rigor, formal prose, and provides broad results devoid of any context apparently does not meet the practitioners' needs. Also, many research articles allude to information contained in related research and therefore can only be understood in conjunction with such information (Rosemann & Vessey, 2008).

RESPONSE FROM IS COMMUNITY

Response from the IS community to the researcher practitioner gap has been anything but homogeneous. At a broader level there have been calls for ignoring other stakeholders because they are not the intended audience of IS research. Some researchers point in the direction of taking the high road by advising practitioners not to follow the top IS research publications because they are not meant for them (Lanamaki, Stendal, Thapa, 2011). Other researchers have made references to consultants that border on imperiousness (Alter, 2001). In calling for a reassessment of current self-evaluation by IS academics regarding their position vis a vis consultants, Davenport and Markus (1999) raise concerns about the perceptions of leadership assumed by the academia as it may not be a true account of reality. They highlight the strong following of consultant research in terms of its implementability to practitioners. Much sterner caveat was issued by Robey and Markus (1998) where they warned that the lack of perceived relevance of IS research to practitioner community has the potential to lower the credibility of the IS field itself. We believe that the existence of such intellectual turmoil is an indicator of the self-contemplation within the IS field in its search for a new reality that will help ease the dissensions and usher in greater trust in the direction it is moving toward.

As mentioned above, key contributors to the internal debate within the IS field regarding the rigor versus relevance debate or the researcher practitioner gap have made arguments ranging from supporting greater relevance to not being too concerned about this issue at all. The intensity of the debate has not been uniform either, it has crested and ebbed. As early as 1989 Grover & Sabherwal called for IS researchers to pay increased attention to the concerns of practicing executives. However not until late 1990s, when researchers like Zmud called for increased scrutiny of published IS research for its relevance to practitioners, that this debate started to gain serious attention. Zmud (1996) argued that the studies examining IS research issues are being driven not by concerns of the practice but instead the institution represented by the IS research literature. He further stated that many of the constructs researched by IS investigators fail to resonate among practitioners due to their marginal relevance to practice. Subsequently, the issue of rigor versus relevance was debated in the March 1999 issue of MIS Quarterly (MISQ) with arguments largely supporting increased focus on making IS research relevant to practice. Given the critical role played by this issue of MISQ in highlighting the rigor versus relevance debate, we reproduce some of the salient arguments put forward by various researchers who participated in this debate. It is entirely possible that had this issue of MISQ not existed, the relevance of IS research would not have been considered an issue of important concern to the future of IS research like it is today. The debate examined the entire structure of IS research, from its objectives to its nature to the pertinence of its research methods.

Benbasat and Zmud

In their arguments, Benbasat and Zmud (1999) provided a fairly comprehensive analysis of the situation. They underscored that IS research lacks relevance to practice and suggested tactics, procedures and guidelines that the IS academic community might follow in their research efforts and articles. They defined the attributes of relevance as tackling problems of enduring nature to the practice, its challenges and dilemmas as well as articles that address timely business issues because such research tends to be well received by practice. However, relevancy is not dependent upon the attributes of the topic itself, the article's implications should also be implementable. They further stated that apart from the above

characteristics, two other types of articles also tend to be favored by the practitioners, a) articles that synthesize an existing body of research, i.e. which classify, categorize, and summarize major themes and findings and; b) articles that stimulate critical thinking by challenging the reader's causal assumptions or by identifying emerging trends, structural changes, or paradigms. Benbasat & Zmud also provided five reasons they believe are contributing to the lack of relevance in current IS research. These are: a) emphasis on rigor over relevance, b) lack of cumulative research tradition, c) rapid and continuous rate of change associated with information technologies, d) limited exposure of IS researchers to business and technological context in which IS phenomena transpire, and e) institutional and environmental constraints inhibiting freedom within the academia.

Benbasat & Zmud offered guidelines to both researcher and IS journal editors in order to enhance the relevance of IS research by calling for inclusion of practitioners as stakeholders, ensuring relevance of outcome of research to the practitioners, creating a cumulative body of research, and making IS research accessible to all stakeholders

Davenport and Markus

Davenport and Markus, (1999), in their response to Benbasat and Zmud (1999) stated that Benbasat and Zmud did not go far enough in their recommendations emphasizing relevance in IS research. They strongly advocated making relevance an essential part of IS research which it is lacking. Recommending emulating researchers in applied fields like medicine and law instead of those in other business school fields, they lamented that IS academics experience the same institutional pressures towards irrelevance as other business faculty. Promotion and tenure evaluations are based on publications in refereed academic journals but not in practitioner journals. They championed the inclusion of practitioner favored journals such as the Sloan Management Review and Harvard Business Review into mainstream research publications and by including them in tenure and promotion evaluations. They recommended that the research evaluation framework should be modified to include practitioner related research in judging researcher productivity. While concurring with Benbasat and Zmud about the need for excellence in scholarship, they stated that it is not a zero sum game with respect to relevance. They pointed towards alternative research models such as applied theory, evaluation research and policy research which offer avenues for both rigor and relevance to their adherents. The authors cautioned that these research models are considered extraneous by mainstream IS research outlets as they do not fit the current definitions of acceptable IS research. They justified relevance to practitioners on the grounds that it will positively influence the respect awarded to IS academia and provide long term access to essential resources, which originate in the practitioner community.

Applegate and King

Applegate and King (1999), discussed that researchers in the field, interested in conducting relevant research, have been facing pressures from the establishment including senior faculty and research advisors to avoid tackling questions that are complex and realistic as it is inordinately difficult to execute such research projects. Instead, they are being guided in the direction of doable research, which follows the well treaded path of strong theoretical constructs and proven theory. The fact that such research is often banal and trite is assumed to be a risk worth bearing for the sake of conducting research in the most convenient manner.

Lyytinen

Lyytinen (1999) provided the European perspective in his views on the rigor versus relevance debate. Questioning the basic terminology adopted by Benbasat and Zmud such as the concept of relevance, he argued that easy digestibility of research by CEO's in one afternoon may not be the right approach to constructing the meaning of relevance. Per his perspective, relevance is closely intertwined with how researchers perceive practice and how that practice could be influenced. However, the lack of well-established IS institutions hinders the development of good relations with the industry in order to fully understand and shape practice. Compounding the problem, the existing institutional framework of rigor,

scientific expertise and tenure policies often leads to opportunistic research behaviors that tend to ignore practice. The preeminence of empirical research practices in North America also shapes the research behavior in that often researchers are specifically looking for problems for which they recognize solutions in terms of methodology. Also, the absence of long-term research perspective often results in solutions that lack rigor and practical relevance.

Lee

Lee (1999), while agreeing with Benbasat and Zmud (1999), states that Benbasat and Zmud did not go far enough in the sense that they gravitated towards positivism, which is the epistemology of research followed by the natural sciences. Doubting that devotion to methodology of natural sciences will likely produce research that might be uniformly relevant to practice, he urged IS researchers to learn from the history of natural sciences. According to Lee, inquiry in natural sciences follows the goal of truth in formal propositions, whereas inquiry in the professions, such as medicine and law, pursues the goal of effectiveness in actions. Inquiry in the natural sciences produces the knowledge about what the world is, enquiry in professions produces knowledge about how to intervene in the world and change it in order to satisfy real-world needs. Arguing in favor of using both approaches, he exhorted IS researchers to not be constrained by the positivist approach alone. Using qualitative approaches could help uncover many perspectives that might actually make IS research more relevant to practice. Calling for an empirically grounded and rigorous understanding of relevance, he underlined that unless thorough research is done to assess the actual relevance to practice, the extent of the problem will remain uncertain.

Though the above MISQ debate did raise the profile of the rigor versus relevance debate, the situation apparently did not improve to the satisfaction of many researchers. Rosemann & Vessey (2008), noting the relative lack of relevance in existing IS research, proposed applicability checks to help practitioners provide feedback to the IS researchers. Describing applicability checks as practitioners' evaluations of the theories, models and frameworks generated by researchers, they argued that such checks will help revise the theories or models to make them more relevant and thereby improve future research. Also, such checks could help the practitioner community get a better insight into the body of research produced by the IS researchers.

REALITIES OF RESEARCHERS VERSUS PRACTITIONERS

Not only does the debate within the IS community on rigor versus relevance highlights the desire to make IS research respond to the needs of all stakeholders it also uncovers the aspiration to see IS theories stand on firm ground with validation by both researchers and practitioners. The debate came up with solutions in the form of advice to researchers to make their research more accessible to the practitioners, to include practitioners' perspective when selecting problems to investigate and for overall closer researcher-practitioner interaction. Though well meaning, most of these solutions have not proven to be effective and we believe that is because of the conflict that exists between the worlds of researchers and practitioners. In framing our arguments in this study for introducing a new institution, we base them on the precept that IS researchers and practitioners are divided by fundamental realities that surround their respective worlds and that their behavior is actually in accordance with their reality. Researchers are trying to develop and extend fundamental theories whereas IS practitioners are looking for knowledge and advice that is readily applicable and reflective of their context. The previous advice offered by IS researchers to improve relevance of IS research, ignored the conflict between the existing structural constraints and the nature of relationship between the researchers and the practitioners. Specifically, it did not go far enough because of the following reasons: a) lack of existing structures to help facilitate closer interaction between researchers and practitioners; b) fundamental differences in the strengths and needs of researchers and practitioners. We address both these issues below.

Asking IS researchers to modify their research agenda to make it more inclusive of practitioners' input is easier said than done. The primary barrier to such transformation of IS research is the lack of institutional structures to help support it. IS researchers and practitioners have no common venue to

interact on regular basis. Given the indifference of practitioners to researchers (Pearson, Pearson & Shim, 2005), asking closer interaction is unlikely to be met with enthusiasm by the practitioners. Study by Pearson, Pearson and Shim (2005) found that practitioners did not appreciate the tone and the content of the research articles published in prestigious MIS journals calling it divorced from the reality they face on a daily basis. Most practitioners only paid attention to practitioner-oriented journals such as Harvard Business Review. Further, practitioners did not feel that researchers were at the cutting edge of the problems they were grappling with. IS researchers on the other hand have inadequate time to interact with practitioner context and also lack resources to get access to latest technology (Young, Darroch, Toleman, 2006). Research is only one of the three primary responsibilities of IS researchers along with teaching and service to the institution whereas practitioners are involved in their occupations full time. To make matters worse, practitioner-oriented research is not part of the academic reward system thereby making its pursuit entirely wasteful from the researchers' point of interest. Therefore, even if collaboration between practitioner and the researchers was somehow made possible, the outcome of such collaboration is unlikely to be very fruitful given the drastic divergence in the backgrounds and strategic interests of the two parties.

Hence, given the wide chasm between the interests of the researchers and the practitioners, it is unlikely that the existing institutional structures will be of significant help in alleviating the relevance gap in IS research. Accordingly, we propose creation of a new institution that will help fill this gap and make the researcher practitioner interaction more productive. The details of this proposed institution are discussed in greater detail later.

We also submit that there is a mismatch between the strengths and needs of researchers and practitioners. Researchers are trained investigators who are interested in pursuing theoretical research that can be applied as widely as possible (Sutherland 1975). whereas practitioners are interested in solving the specific problems they face in their quest for survival (Lanamaki, Styendal, & Thapa, 2011). Researchers think in terms of wide scope and generalizability of the output of their work, whereas practitioners are focused on the fine granular characteristics of their operations and preoccupied with the efficiency of the solutions. The researcher is usually a trained investigator in the positivist research tradition who works on hypotheses which are then tested through statistical analysis (Kaplan & Duchon, 1988). Using formal propositions and hypothetico-deductive logic (Lee, 1991) researcher investigates a-priori construed relationships between constructs of choice. Practitioners on the other hand are trying to better their practice but not necessarily interested in the theoretical reasoning or nuances of the analysis supporting the solutions (Belli, 2010). They understand the constraints of their operations and possess knowledge base of legacy solutions that worked in the past within their context. Their training is informal and is shaped by the challenges faced previously by their organization. Also, practitioners are not committed to any rigid methodology, they are simply fixated on the efficacy of the solutions. The results of the research generated by researchers are decontextualized whereas the results demanded by the practitioner must be applicable within the context of their operations.

Thus, academic research and organizational practice form two distinct knowledge communities. The academic researcher generates and publishes theoretically grounded generalizable knowledge based on peer reviewed rigorous research. The practitioner on the other hand develops and refines knowledge in the course of solving problems and negotiating challenges in a specific context (Mohrman & Lawler, 2011). Knowledge developed by the researcher is usually a description of relationships that are expected to hold true within a wide set of conditions along with rigorous reasoning supporting such relationships. Knowledge developed by the practitioner usually consists of relationships between the attributes that define their operating conditions. Their functional knowledge is based on action-result relationships existing within certain specific conditions usually supported by conjectured reasoning and anecdotal evidence. Thus, the researcher's strength is the rigor and scientific methodology and need is to develop generalizable results. The practitioner's strength is the knowledge of the actual real world constraints characterizing their operating conditions and need is for solutions that will work within those constraints. Generalized solutions offered by academic researchers are often repudiated within the specific operating

conditions indigenous to the context of the practitioner due to the lack of specific variables that tie the model to the context of the organization.

If the worlds of researchers and practitioners are incompatible with each other the likely reason is their historic lack of engagement with each other. Their two worlds emerged distinctly, valuing different specializations. The researcher valued purity of data and rigor of the methodology. Practitioner valued intimate knowledge of the context and effectiveness of the results. Besides, each side faced a different risk-reward relationship. For the researcher there was zero risk if the results of the investigation were found to be unworkable when applied in a specific context as long as the methodology was deemed rigorous. For the practitioner, the failure to find effective solutions had existential implications irrespective of the soundness of the procedure. This dissimilarity in the worlds of researchers and practitioners has engendered different survival modes for each. Researcher is measured on scientific immaculateness whereas practitioner is measured on efficacy of solutions. What gets measured gets done as goes the old dictum.

BARRIERS TO SOLUTION

This leads to yet another obstacle in narrowing the researcher practitioner divide. Reconfiguring research practices such as publishing in practitioner-oriented journals is unlikely to help much unless practitioners are confident that academic researchers have genuine understanding of the issues critical to them (Senn, 1998). Even research published within the practitioner focused publications does not provide unambiguous, actionable, discrete recommendations. Universities on their part have displayed little interest in rewarding those with proven record of practitioner-oriented research and therefore unlikely to be of much help. In asking for a complete re-conceptualization of the existing IS research framework, Davenport and Markus (1999) point out that journal reviewing as well as promotion and tenure reviews are important mechanisms for maintaining irrelevance. Unless IS academia alters the criteria it uses to assess research for publication and career progress, calls to publish in practitioner focused publications will go largely unanswered. Not many researchers are therefore likely to channel their research output through practitioner-oriented publications and even if they do, it is unlikely to redress the situation significantly.

NEED FOR A NEW INSTITUTION

The issues discussed above imply that in the current environment there is little likelihood of narrowing the gap between research and practice. Since current structures and practices are the basis for causing this intractable situation, we propose that there is a need to modify them. The central issue that needs to be recognized is that research with generalized findings produced by academia will likely not satisfy those who are looking for solutions specific to their context. One theory fit all contexts is an unrealistic assumption. As Mohrman & Lawler (2011) describe, organizations are not entities with stable characteristics, but instead continually changing social systems whose characteristics and dynamics originate from the decisions and activities of their members. To be effective, research needs to acknowledge the organizational context and apply interdisciplinary knowledge and use multi-method, multi-level approaches that can capture the complexity of the phenomena. We propose a solution that introduces a new institution focused on research validation in specific contexts. This new institution will select theories developed by IS researchers and extend them to make them relevant to the practical context in order to validate them.

The solution in effect restructures the way IS research is disseminated to practitioners. Currently the structure is essentially a two-party system, the researcher who produces research with generalizable results and the practicing community that is ostensibly the intended target of this research. We propose addition of another institution, for which we adopt the title "Pracademia" that was originally coined by McNatt, Glassman & Glassman (2010). We differ from them regarding the role and positioning of this third entity though. McNatt, Glassman & Glassman envisioned the pracademic to be situated at the

university performing applied research. We propose a different setting for the pracademic and the reasoning behind it below.

It is the organizations that face the brunt of change, not academia. Organizations have to recognize, analyze and negotiate the change with the resources they have on hand. They often do not understand the change but need to cope with it nevertheless. The resource that is critically finite to the organization is time. It is rare for organizations to have the luxury of spending years arranging strategies to successfully weather the uncertainties wrought upon them by changing market conditions, unpredictable competitors or rapidly changing technology. Unlike academics they are not committed to methodologies or rigorous scientific investigations, instead they rely upon their own heuristics and past experience in coming up with solutions. If we consider the change confronting an organization with the onslaught of disease in a person, the organization self-diagnoses the symptoms and self-prescribes the medicine in the hope of surviving. It would be highly preferable for the organization to correctly diagnose the situation and apply the appropriate solution, but they lack the time and often also the ability to do so. The research conducted by the academics offers solutions, albeit in a generalized manner, for many of the challenges facing the organizations. The research produced by academics investigates the symptoms of the challenges, their likely impact on organizations and ways to cope with such challenges. In other words, academic researchers come up with prescriptions related to the ills that often confront organizations on a regular basis. The problem with these prescriptions is that they are generalized cures and not specific to a given set of conditions surrounding an organization. Also, the cure is not provided in an accessible manner to the practitioners thereby discouraging them from using them to their advantage. Therefore, the academic researcher is like a physician who develops cures that are not directly usable by the organizations that need them. The key reason the cure is not considered usable by the practitioners is because they fail to see how that cure is appropriate to their situation. The missing link is the information that connects the cure to the context.

In order for the organizations to actually benefit from the expertise of the academics, they have to find a way for someone to organize, classify and catalog the research produced by academics. Also, the generalized advice must be tailored to the specific context of the organization. This is where the pracademic can offer their services to the organizations by gaining expertise in theoretical research produced by the academia which they can then tailor to the context of the organization to make it effective. The ideal pracademic would be someone with extensive experience in the organization so as to possess an intimate knowledge of the context. This necessitates the presence of the pracademic within the organization and not the university. The pracademic would also have to be thoroughly trained in the theoretical body of research produced by the researchers in order to use it to the organization's advantage. A theoretically adept pracademic, with many years of work experience to combine theoretical concepts with the practical realities of the context, is most suited to develop unique insights with actionable attributes. Thus, the pracademic will act as a physician within the organization, with capabilities to diagnose the symptoms caused by the challenges facing the organization. The pracadmic will have his finger on the nerve of the organization because of his experience, and also comprehend the body of knowledge produced by the academic researchers. In other words, the most efficient way to produce an effective cure for the organizational ills is by combining the existing body of research with the experience within the context of the organization. Knowledge of the context is the key. Without having an in-depth exposure to the context of the organization it will not be possible to develop coping strategies using academic research characterized by generalized results. Pracademics will help remove the common complaint by practitioners that they find IS theories too abstract and imprecise to apply in organizations. The pracademic will have the grounding in the research process and exposure to serious research work to not be daunted by the rigor of IS theories. The IS theory will act as a basis for the solutions to be developed by the pracademics using their own experience to suitably extend the theory to meet the needs of the organization.

The pracademic will allow the academic researchers to expose their theories to the unforgiving reality of the organizational world. The theories produced by the researchers will be the generalized theories, the extensions made by the pracademics will be the special versions of those theories with application in a

specific context. The feedback provided by the pracademic will be an invaluable tool to help validate generalized theories in specialized contexts. The feedback loop will allow the IS theories to be either confirmed in multiple contexts, to be modified or even eventually discarded if they fail in every context they are applied to. The feedback provided by the pracademic could be published in a special section of IS journals for the benefit of the researcher community. This two-way communication process between the researchers and the pracademics will allow IS theories to mature and stand on a form footing with validation by both researchers and practitioners.

If the role of the pracademic is to apply theories after extending them to fit the context of the organization, the question arises how to produce such pracademics? The ideal pracademic should be someone with substantial experience in the organization with a mid-level executive position. Universities should attract them into organizational research by developing and offering Executive Ph. D programs. Though the details of such programs might vary between different universities, tailoring them to suit the context of the executive joining such program will make them more attractive to the potential pracademics. Unlike one size fit all nature of regular Ph. D programs, Executive Ph. D programs should be built around the needs of the pracademics interested in joining such a program. The Executive Ph. D programs will not only be financially beneficial to the universities, it will allow the creation of a channel to access the experience and data of the organizational world.

Recommendation on similar lines was made by Van Aken (2004) with respect to management research. Terming the research for solutions to changes faced by the organizations as prescription research, he argues for creating a parallel body of prescriptive research focused on the instrumentality of solving problems alongside descriptive research created by academics at the university. Terming academic research too reductionist and consequently too broad to be applied practically, he argues for closer interaction between the prescriptive researchers working in the field and the descriptive researchers working in the university. Using the experience of prescriptive researchers to modify and reframe theories, he argued, will help enrich existing theories and also help find new paths for investigation. Also similar is the argument for Mode-2 knowledge production by Gibbons et al. (1994). The problem with the previous solutions is that they expect academics to create prescriptive research by learning second hand what the organizations need. We instead propose that prescriptive research can be based on existing descriptive research which by itself is too generalized to be applied directly. The descriptive research needs to be extended to the specialized context of the organization it is being applied to and tested. The extension and testing should be done by someone who has in depth knowledge of the organizational context and is also well versed in research theory.

In IS research, there is already an existing precedence of extending theories to fit different contexts. We provide below examples of extending the Technology Acceptance Model (TAM) (Davis 1989) to fit different contexts.

USING TAM AS EXAMPLE

Even though the Technology Acceptance Model is a fairly well-established theory and would be favorably received by practitioners in its basic form, we use it as an example illustrating how pracademics could use a basic IS theory and extend it to fit the context of an organization. We provide a few examples of the work IS researchers have done in extending TAM to fit different contexts by adding constructs native to that context.

In their study on extending TAM to the context of implementing an Enterprise Resource Planning (ERP) system, Amoako-Gyampah & Salam (2004) investigated how the perceived usefulness and perceived ease of use constructs were formed. They found that both were affected by the shared belief in the benefit of the system, which itself was affected by the constructs of project communication and training. In their study on user acceptance of voice recognition technology, Simon & Paper (2007) found that subjective norms were important in affecting attitude toward using such a technology in a close knit enclosed social system such as crew on a naval ship. Liu et al. (2010) found that in the context of online learning, online course design and user interface design positively affected perceived usefulness and the

perceived ease of use respectively. In the context of Radio Frequency Identification (RFID) systems use in libraries, Kapoor et al. (2014) extended TAM by adding system quality which positively affected attitude toward use of such systems.

In each of the above cases, the context was different and therefore the factors affecting the original TAM constructs were also different. In each case, the core TAM model was extended to include factors indigenous to the context on their impact on the eventual outcome, intention to use the technology under consideration. By extending the core theory to fit the context, the studies mentioned above allowed researchers to investigate what factors were relevant in a given environment in influencing the eventual outcome. In the study by Simon & Paper, the lack of physical space on a ship induced intense forced social interaction among users, thereby making subjective norms a useful addition to the core TAM model. Subjective norms perhaps might not be as important in a more relaxed environment where interaction among the actors is not as intensive. Even though above studies were conducted by IS researchers, they represent useful exemplars of the research that would ideally be conducted by the pracademics because of their intimate knowledge of the context. The pracademics are likely to identify the missing link between the core theory and the context so as to develop effective extended model of that theory.

CONCLUSION

That relevance of IS research to practice must improve is an opinion held by majority of IS researchers, however, previous efforts in this direction have been less than successful. This study recognizes that a major reason for this lack of success is likely due to unrealistic expectations placed on IS researchers. IS researchers are trained in conducting research and producing theories that help explain relationships and phenomenon of interest to the IS field. Their research aims for elaborating causal relationships, addressing the question of "why" (Merton, 1967). They also aim for a parsimonious and reductionist approach in their explanations. Practitioners on the other hand need models closely suited to their context and cannot directly obtain it from the theories and research published by the IS researchers. This study proposes creation of a new institution of pracademia by involving executives in the research process through executive Ph. D programs. An experienced executive, well trained in the research process and possessing knowledge of the body of research, will make an ideal pracademic. The role of the pracademic will be to extend the theories produced by IS researchers to suit the requirements of the organization. The addition of the institution of pracademia will allows researchers to focus on creating rigorous well tested parsimonious theories. Practitioners will be able to access the wide body of research though the pracademics who will create actionable models of research that fit the needs of the practitioners.

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