The Academic-Professional Divide: Generating Useful Research and Moving It to Practice

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Abstract

This study examines the divide between academicians and professionals in the applied field of real estate in the United States and the impact of this divide on the use of best evidence by professionals. We consider the same divide in other disciplines ranging from management to conservation and the efforts there to institute evidence-based approaches, following the lead of the medical profession. To address this issue, we highlight the use of translational research in medicine as a mechanism to generate and use evidence that is rigorous and relevant as a means for instituting evidence-based real estate (EBRE) practices. We summarize lessons learned from other disciplines as a guide to developing a translational research agenda for real estate, and we conclude with some ethical questions surrounding the evidence-based management principle and application of translational research.

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Introduction

In the applied field of real estate in the United States there is a perception that the academic and practicing professional communities are distinct and that the interaction between them is limited (Baxter, 2007; Burke et al.,2004, Roulac et al. (2004) and Souza, 2000). This notion of separate communities with limited interaction is not unique to real estate; a similar phenomenon has been noted in the applied fields of medicine, education, ecology, psychology, and management, (Anderson et al., 2001; Burke et al., 2004; Hambrick, 1994; and Van De Ven and Johnson, 2006). One of the significant impacts of this divide between academicians and professionals is that the best available evidence may not be used to solve problems and make decisions.

Diaz (1993) posits that while "science" (theory) and "engineering" (practice) differ, there is an overlap between these activities in real estate, creating an area he identifies as "applied science." While real estate may have a divide between researchers and professionals, there is common ground. In response to this gap, the American Real Estate Society (ARES) was founded in 1985 as an organization welcoming both academicians and professionals. ARES seeks to develop and disseminate applied science and research of value to professionals addressing real-world problems. Despite ARES' significant professional membership, a portfolio of journals targeting research useful in problem-solving, and a well-attended annual conference, the

researcher/professional divide and the related problems of generating and using relevant and rigorous best evidence persist in real estate. The purpose of this paper is to address this divide using evidence-based principles from other disciplines, particularly medicine.

Given the critical nature of medical decisions, in the 1990s the evidence-based medicine (EBM) movement was initiated to increase the use of "best-available evidence" in medicine. The goal of EBM was to move research findings from the bench to the bedside as efficiently as possible. The evidence-based practice model has now spread beyond medicine to influence a number of applied fields, particularly psychology and management.

Implementing EBM made certain critical evidentiary deficiencies apparent at the scientific and clinical levels. At the scientific level, evidence on selected important issues and topics was simply not available because no researcher thought to gather it. The clinical level not only suffered from an absence of data, but also from a failure to disseminate the data that was available. These deficits were severe constraints; evidence-based medicine was not achieving its potential. A research model to overcome the divide between basic and applied research became apparent.

The answer in medicine was the translational research model. Both scientists and clinicians are researchers, instead of just the former. The translational researcher summarizes and synthesizes useful findings.

Practitioner and academic channels communicate these results to solve problems (Minasian et al., 2010). Translational research provides a framework

for generating and communicating the "evidence" for evidence-based medicine, and may therefore also serve as a model for other disciplines.

We begin this study with an overview of the researcher-professional divide in other fields and in real estate. We then discuss the principles of evidence-based practice and their applicability to real estate. After framing these issues, we analyze the concepts underlying translational research and their potential to reduce the academic-professional divide, improve the use of best-evidence, and improve the generation and distribution of relevant and rigorous evidence. We do so at a high level; we don't pretend to have all of the answers but rather are suggesting an agenda for future research. The ethical implications of evidence-based management and translational research conclude our paper.

<u>The Academic-Professional Divide in</u> <u>Other Fields</u>

In other fields, the academic world is characterized as research-oriented, theoretical, or scientific in nature while the professional world is characterized as applied, engineering, technical, and pragmatic in nature. Anderson et al. (2001, 392) describe the situation in industrial and organizational psychology:

Practitioners and researchers have often held stereotypical views of each other, with practitioners viewing researchers as interested only in methodological rigour whilst failing to concern themselves with anything in the real world, and researchers damning practitioners for embracing the latest fads, regardless of the nature of the production of knowledge.

If this divide had only trivial implications, it would simply be curiosity, but the implications are important for the entities receiving services from professional

psychologists. In medicine, with only 15% of the health care professionals' decisions concerning diagnosis and treatment utilizing the "best evidence," real questions spring to mind about the quality of patient care (Pfeffer and Sutton, 2006b).

Instead of receiving care based on the best available evidence physicians rely on something else. Pfeffer and Sutton (2006a, 64) identify what they rely on:

For the most part, here's what doctors rely on instead: obsolete knowledge gained in school, long-standing but never proven traditions, patterns gleaned from experience, the methods they believe in and are most skilled in applying, and information from hordes of vendors with products and services to sell.

Sutherland et al. (2004), in a study of what information and data professionals in the conservation field use to make decisions, report that about 32% use common sense, 22% use personal experience, and 20% gather information by speaking with other managers in the region. They found that other sources are used to lesser extents, with primary scientific literature being used only 2.4% of the time. It is clear that professionals in many fields seldom rely on academic researchers for knowledge used in problem solving and decision making.

The stakes associated with this divide between professionals and academicians are particularly high in medicine where outcomes are often measured in life and death or, at a minimum, quality of life. With such high stakes, it is understandable that the researcher-professional divide receives attention in medicine. The consequences of this divide are also important to other applied fields. While death or diminished capacity may not be in the

offing, the divide may pose existentialist threats to clients' businesses and, ultimately, to firms and individuals practicing in the field.

The Academic-Professional Divide In Real Estate

In real estate, Roulac et al. (2004) note the need to bridge the gap between academic and professional real estate research. Noting the same gap, Souza (2000, 100) proposes a solution in which communications plays a critical role:

Real estate research will be conducted in a more integrated fashion, led by modern real estate and financial economists. These individuals will bridge the gap between academic and professional research, acting as change agents within the university and corporation. Their ability to communicate and transfer knowledge from the research institution to the real world, and from the real world to the research institution will allow the academic community to test the theoretical validity of hypotheses. Applied real estate and financial economists of the future, in conjunction with advanced communications and computing systems, will cause the academic and professional worlds to collide, forming new and innovative approaches to solving practical real estate problems. This approach essentially suggests that old networks must be selectively abandoned and new, more functional networks must be developed in order to improve applied (pragmatic) real estate research and the development and use of that research for the benefit of clients and society.

Diaz (1993) states that research is generally thought of as either science, the purpose of which is to describe nature and, thereby, create knowledge, or engineering, charged with using knowledge to develop technology to improve life. But, as illustrated in Figure 1, there is a middle ground where science and engineering both contribute to research, an area Diaz (1993) labels applied science:

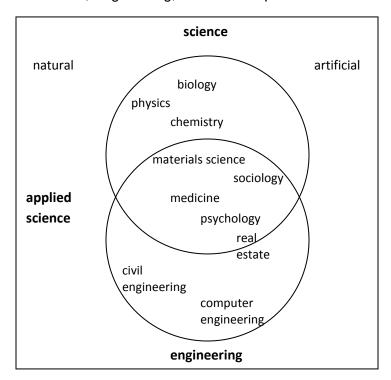


Figure 1: Science, Engineering, and the Discipline of Real Estate.

Diaz, J. (1993, 184)

When the academic-professional divide minimizes or eliminates this overlap the health of the applied discipline is endangered. Diaz (1993, 185) maintains that this is a real possibility in business disciplines, as they naturally tend to move toward the engineering end of the continuum:

The business disciplines, for example, have very eager constituencies that sometimes even show disdain for any knowledge not obviouslyand immediately of "practical" use, branding it "theoretical"—meaning, of course, of little real value. With such demanding constituencies, the engineering imperative becomes very strong, and most business disciplines become largely disciplines of engineering.

In such a situation, new knowledge from the science end of the continuum is severely limited. With fewer inputs available in the form of theories, concepts,

and techniques, the applied end of the continuum has a smaller toolkit and a diminished supply of parts to synthesize into new technology.

As an amalgam of science and engineering, vibrant applied sciences require professionals to be willing to use scientific findings *and* scientists willing and able to produce a steady stream of rigorous and relevant research. This is a condition Thayer et al. (2011, 34) label "mutual translation" in the industrial, work, and organization (IWO) psychology discipline:

We must practice what we preach and institute a reward system within our profession that incentivizes its members to engage in mutual translation. Academic institutions should value translation and provide rewards for faculty who publish in practice-oriented outlets or take other tangible steps to bridge the scientist-practice gap; likewise, business and consulting organizations should recognize the value of publication and dissemination of knowledge and thus encourage and reward employees for doing so.

In this view of applied science, the importance of producing and distributing knowledge throughout the entire scientific-engineering continuum is made clear. The production and exchange of knowledge informs participants throughout this ecosystem not only of the actual knowledge, but also of the problems various participants view as relevant and needing additional, perhaps more rigorous, research. This problem signaling function is important to the development of the discipline. In market terms, this means that the process exhibits both supply-push and demand-pull characteristics. The science-engineering continuum is actually a network of academicians and professionals defining a market for research that ultimately creates value for the clients of real estate and other professionals.

Rigor, Relevance, and the Academic-Professional Divide

Anderson et al. (2001) incorporate the concepts of research rigor and relevance to explain the widening practitioner-researcher divide in IWO psychology. Using the typology in Figure 2, they classify research as popularist, pragmatic, pedantic, or puerile based upon the relative weighting of relevance and rigor. The authors believe that pragmatic science, with high rigor and high relevance, should dominate the IWO discipline. However, they note that the field has been drifting toward pedantic science with papers becoming more "myopic" and "technical" in nature (Anderson et al., 2001). While every applied discipline will have research studies in each classification, the distribution of studies across the categories is of interest.

Figure 2: Research Typology

	Methodological Rigour	
	Low	
High		
	Quadrant 1:	Quadrant 2:
	'Popularist Science'	'Pragmatic Science'
<u>Practical Relevance</u>		
	Quadrant 4:	Quadrant 3:
	'Puerile Science'	'Pedantic Science'
Low		

Anderson, N., Herriot, P., and Hodgkinson, G.P. (2001, 394)

Anderson et al. (2001) report that a detailed study of 577 articles published in IWO journals revealed that 84% were pedantic and 3% addressed real-world problems. Pragmatic science is an analog to the applied science identified by Diaz (1993). Given the preponderance of pedantic science in IWO journals, it is not surprising that IWO professionals and researchers have little in common. The same issues contribute to the researcher-professional divide in real estate and other disciplines.

Studies of publications in real estate have not addressed a research classification scheme similar to Anderson et al. (2001, 109). However, Harrison and Manning (2008) note the difficulty associated with finding timely and relevant real estate research:

However, given the breadth of academic outlets, it becomes more challenging for researchers to "keep up" and/or sift through the maze of new articles to focus on topics of timely relevance to the many people working with or impacted by real estate.

It should be noted that the reference to "researchers" includes researchers in academic or professional settings. Manning et al. (2008) develop a comprehensive review of applied research and real estate article authorship, finding that only 14% of articles in the top three real estate journals during the period 2000 to 2006 had an author or coauthor not in the academic community.

Evidence-Based Professions

The high potential gains in the form of better diagnoses, treatment options, and outcomes for patients, spurred the development of the concept of evidence-based medicine (EBM),in the early 1990s. In defining EBM, Pfeffer

and Sutton (2006a, 63) reference Dr. David Sackett, one of the pioneers in the development of EBM, who defines it as:

...the conscientious, explicit and judicious use of current best evidence in making decisions about the care of the individual patient. It means integrating individual clinical expertise with the best available external clinical evidence from systematic research.

Central to the practice of EBM is the development of a research skill set related to finding and evaluating relevant research. These skills include the ability to search the medical literature, identify pertinent research, and then screen and evaluate that research to find the "best" evidence for the problem at hand.

While EBM seeks to have best evidence become part of clinical practice, it does not advocate that evidence is the only or dominant consideration.

According to Schardt and Mayer (2010), EBM is "the integration of clinical expertise, patient values, and the best research evidence into the decision making process for patient care." Thus, EBM is but one component in caring for patients; it does not replace experience, judgment, or the desires and preferences of the patient. Clinicians must combine the research evidence with clinical experience and patient values and preferences to develop a treatment plan.

Evidence-Based Management and Evidence-Based Practice

Using EBM as a model, Pfeffer and Sutton (2006b) and Rousseau (2006) champion evidence-based management (EBMgt) and evidence-based professional practice (EBP). According to Rousseau (2006, 256):

Evidence-based management means translating principles based on best evidence into organizational practice. Recognizing the critical role of client preferences in some professional consulting settings, Rousseau (2006, 258) defines EBP as:

a paradigm for making decisions that integrate the best available research evidence with decision-maker expertise and client/customer preferences to guide practice toward more desirable results.

Both of these definitions have either implicit or explicit assumptions that evidence alone is not the basis for problem solving and decision making. It is one component to be used along with expertise, goals and objectives, and preferences.

The implementation of an evidence-based regime requires a mindset with two crucial elements (Pfeffer and Sutton, 2006b, 14):

- A willingness to set aside belief and understand and act on facts.
- A commitment to seek out current and relevant information.

These two foundational elements of evidence-based practice in any field are easier to recognize than to put into practice. Beliefs operate below the conscious level and are, therefore, difficult to control. Discovering relevant evidence is difficult and time consuming.

Whether evidence originates outside or inside the firm, little of it finds its way into action. Pfeffer and Sutton (2000) label this condition the "knowing-doing gap". The reasons for not using available evidence are numerous and include the volume of evidence and a lack of good evidence. In short, there is inertia to maintain the *status quo*.

One could probably add that evidence often is received in a piecemeal, inchoate fashion, not in a developed, holistic one. It is not difficult to understand that the perceived marginal value of an incremental piece of evidence may be much smaller than that of a larger, more fully-formed framework blending that incremental evidence with other evidence into a more useful whole. This may explain why consulting firms offering what are perceived to be more complete and tested "frameworks" find receptive managerial audiences. Of course, it is possible that by the time this *gestalt* is developed, early adopters of incremental evidence may already be enjoying a significant competitive advantage.

Another significant variable is time. Evidence collection, evaluation, and implementation take time, thereby reducing its expected value. The expected value of new evidence is equal to the total expected benefit minus the total expected cost of obtaining and utilizing the evidence. When viewed from a cost-benefit perspective, people may have valid reasons for not seeking and incorporating all available evidence. Those who synthesize elements of evidence into more comprehensive and valuable modules may reduce the risk associated with search and implementation. Risk is reduced because the synthesis process identifies and integrates the more useful evidence and partially or totally discards less useful, but not costless, evidence. It is not surprising that the use of evidence may be discontinuous and "lumpy" rather than continuous and incremental. Synthesis work and framework development move evidence adoption toward the efficient frontier of evidence use by

allowing users simultaneously to increase the expected value and reduce the perceived risk—definitely a move in the right direction.

The relationship between EBP and real estate is fertile ground for research. Although the use of best evidence in real estate has not been addressed empirically, several scholars perceive this issue. Souza (2000) discusses the divide between the academic and professional communities. Roulac (1996) presents a vision for greater interaction and exchange of ideas between academicians and professionals. Black et al. (1996) suggest a new, highquality applied real estate journal that would "...become a device for communicating practical ideas from academics to practitioners and other academics." Roulac et al. (2004) note the lack of research transfer and the need for collaboration between academics and professionals. Baxter (2007) reports on a graduate real estate program with "evidence-based practice" as a desired graduate capability. Weinstein and Worzala (2008), in a paper examining trends in graduate real estate programs, report that students should be trained to become lifelong learners in order to deal with the change and risk that are part of real estate. Manning and Roulac (2001) provide a superb summary of the past, present, and possible future of real estate education that, among other attributes, emphasizes thinking, learning, and identifying useful information.

These studies indicate a significant and persistent concern about the use of best evidence in real estate. While the use of best evidence in real estate may be limited, the incorporation of the concept of life-long learning into graduate

real estate programs indicates that its value is becoming recognized.

Improving the use of best evidence in real estate is a reasonable yet difficult goal. The difficulty arises from the innovative nature of evidence-based practice relative to the current model and its related networks; inertia and vested interests favor the status quo.

Translational Research and Real Estate

Following the introduction of EBM, it quickly became clear that the existence of evidence does not automatically lead to that evidence being used in an expeditious manner to improve health. Facing the need to develop and move research findings efficiently and effectively to the patient, the National Institutes of Health (NIH) developed the concept of translational research. According to Woolf (2008, 211):

...translational research refers to translating research into practice; i.e., ensuring that new treatments and research knowledge actually reach the patients or populations for whom they are intended and are implemented correctly.

This definition captures the essence of translational research as a mechanism to ensure that best evidence efficiently finds its way to the patients who can benefit from it. Translational research is a priority with NIH as evidenced by the creation of the NIH Roadmap, which outlines the fundamentals of translational research and funds centers of translational research through the Clinical and Translational Science Award (CTSA) program (Woolf, 2008). Zerhouni (2005, 1621) identifies three fundamental themes in the NIH Roadmap:

- 1. Development of novel approaches to dealing with complexity.
- 2. Removal of barriers to interdisciplinary research teams.
- 3. Improving the interaction among basic, translational, and clinical researchers and redesigning clinical research to be more effective.

These themes recognize the realities of moving basic research findings to patients and the need for changing institutional, political, educational, and cultural arrangements in order for translation to be effective.

In real estate, there are no formal translational research efforts; however, various academic and professional organizations perform activities and functions related to the goals of translational research. For example, the American Real Estate Society (ARES) publishes an annual monograph devoted to a single topic, usually of broad interest and publishes an applied journal, the Journal of Real Estate Portfolio Management. ARES also conducts an annual meeting at which academics and professionals present papers, attend a daylong critical issues seminar, and interact in other ways. Professional organizations such as the Counselors of Real Estate and the Appraisal Institute publish applied journals. The National Association of Realtors has sought academic participation in the creation and development of Realtor University. These activities are beneficial, but they do not approach the breadth and depth of the activities that make translational research a force in medicine.

Toward a Framework for Improving the Generation and Use of Best Evidence in Real Estate: Critical Concepts

In order to improve the generation and use of rigorous and relevant evidence in real estate there must be robust debate about evidence-based practice found in the management literature and in other disciplines considered

earlier in this paper. The situation in real estate is not that EBRE and translational research efforts have failed; they have simply not been adequately defined and attempted. This section of the paper considers how the real estate discipline can move toward generating and using better evidence in professional practice as part of an EBRE framework.

Lessons from Other Disciplines

Fortunately, these efforts do not have to start from scratch. Experience and lessons learned in other disciplines provide useful insights and broad themes for real estate. These insights include:

- Generating evidence does not guarantee that it is readily available to and understood by those who can use it in practice (Pfeffer and Sutton, 2006b).
- Having a need for specific evidence in practice does not mean that such evidence exists, that researchers know of the need, or that evidence will be generated (Anderson et al. 2001.
- It is not only academic evidence that is not being generated and used in practice, rigorous and relevant clinical or professional research is in short supply and needs to be developed, distributed, and used in practice (Zerhouni, 2005).
- End users, be they patients or clients, are a critical element in this process and they must be educated about the options and the benefits and costs of those options if the benefits from best evidence are to be realized (Schardt and Mayer, 2010).
- There is a place for "translational researchers" who translate academic research into actionable evidence for professionals and who "translate" important questions in practice to academicians (Woolf, 2008).
- Professionals need to possess the skills necessary to find and evaluate research results to identify best evidence (Pfeffer and Sutton, 2006b).
- Reward systems need to recognize the value of the evidence-based practice and translational research enterprise in terms of patient and client outcomes and develop a reward structure that incentivizes such efforts (Thayer et al., 2011).
- There are ethical considerations related to the failure to use "best evidence" and when academic research and professional research results constitute "evidence" (Hofmann, 2010 and Briner and Rousseau, 2011).

Individually and collectively these findings indicate that a market for evidence in real estate cannot be assumed. It may have to be developed, and translational research is the linchpin for discovering and managing evidence. The findings underscore the importance of educating academicians and professionals about evidence generation, evaluation, and utilization.

Conclusions

We began this paper with the general problem of the academicprofessional divide, and then discussed this issue as it relates to real estate.

One key point is that both scholars and practitioners must recognize the value that the other group adds to the discipline as a whole. The former provides rigor and supplies the research from which practical solutions may be devised. The latter identifies problems worth solving because of their impact on real people and organizations; they offer relevance.

We next considered the generation and use of best evidence and how to improve both, using the medical profession and management literature as guides. We do not suggest that best evidence is a magic bullet for the academic-practitioner divide in real estate, only that its adoption would balance the needs of both communities. Referring once more to Figure 1 (Diaz, 1993), we offer that real estate must maintain an equilibrium between science and engineering if it is to be a true applied science.

Translational research is the mechanism both to generate and disseminate best evidence. While the field of real estate has already begun efforts towards translational research, these efforts do not yet constitute an

agenda. Borrowing from other disciplines, we specify some of the lessons that should inform translational research in real estate. These lessons are only the beginning, as many details are yet unresolved. Chief among them are the ethical questions we pose at the end of this paper. We look forward to other scholars, in real estate and elsewhere, tackling the agenda of best evidence and translational research in real estate.

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