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Editorial

Defining Interesting Research Problems

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We argue that research problems are only interesting relative to some external audience. Interesting academic research should impact, at least, that external audience. Hence, we should target our research toward specific external audiences. Several foreboding trends that exacerbate the urgency of this targeting are discussed. To facilitate the targeting task, a partial list of fifteen possible audiences for academic research in marketing is identified. We discuss some of them, including practitioners, in detail. For example, we conclude that, for our research to be interesting to practitioners, practitioners must have the ability to improve and to make better decisions with enhanced understanding. Finally, we strongly suggest that we focus our research on fundamental problems in marketing. These are problems with the property that external audiences would first look to the marketing literature for answers.

(Academic Research; External Audiences for Research; Practitioners and Academic Research; Marketing Discipline)

A Definition for Interesting

Few journals are willing to publish uninteresting manuscripts. Before publishing any research manuscript in a peer-reviewed publication, some evaluator must find the research interesting. One of the most devastating of all the criticisms directed against any manuscript by any evaluator is that the research is uninteresting. Other criticisms, including fatal errors in the analysis, inadequate data, incomplete consideration of the past literature, and indecipherability, are all trivial in comparison. Indeed, although the remedies for these latter criticisms might be both tedious and arduous, the remedies are usually straightforward. The method of making research more interesting is far less so. One of the most onerous messages an author receives from an editor is that the manuscript requires revisions to make the research more interesting (often by enhancing the

contribution). It seems, therefore, essential to have some guidelines for determining the level of interest a manuscript elicits.

Providing an operational definition of interesting is difficult but necessary. To begin, let us realize that no research findings are innately interesting. Research findings are only interesting to some audience for some reason. In other words, research is interesting only relative to an audience. Some audience must judge the research as interesting within the context that they define. For example, the research finding that capacity constraints change the nature of competition might interest regulators more than the news media. There are many possible audiences (discussed later), but we hope our research will interest at least one of them.

Of course, research creates interest in many ways. One of the best ways to interest an audience is to have significant impact on that audience. Hence, truly interesting research often has the potential to significantly impact a specific audience. In other words,

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the research should potentially cause someone (other than the researcher) to do something very different from what they would do without the research. The research might cause them to make different decisions now or in the future. The research might cause them to adopt different methods now or in the future. The research might cause them to change their objectives or adopt a new way of problem solving. There are innumerable ways to impact an audience. In sum, research having potential impact is usually interesting.

Research will often be more interesting if it impacts a wider audience and has a greater impact on that audience. When more people do things differently because of the research, the research is more interesting and has a greater impact. Moreover, research is often more interesting when it causes greater changes. When someone does things very differently because of the research, the research is of greater interest and has a greater impact.

One could argue that equating “interesting” with “having an impact” is both too strong and too weak. It might be too strong because (as many authors argue) research findings that are merely new or unexpected can be interesting. However, unexpected findings do have an impact. They suggest that we should change our method for prediction to avoid these surprises. After suitable enhancements in our methods for prediction, the findings should no longer surprise.

One could also argue that impact is too weak a measure of interest because what impacts one audience may already be well known to another audience. Academic researchers, for example, might discover and make known an industry practice that is interesting to regulators but already prevalent among industry insiders. Moreover, some methods that have been well known to academic researchers for many years may be of great interest to some practitioners who would greatly benefit from knowledge of those classic methods. Given this seemingly logical reasoning, having a potential impact is only a minimum condition for being interesting.

Interesting for Whom? Possible Audiences

To determine potential impact, we must first identify the relevant audience for the research. As discussed

Table 1 Fifteen Possible Audiences for Our Research Beyond Fellow Researchers

Consultants	Market research professionals
Consumers	Popular news media
Educators	Practitioners (e.g., managers)
Funding agencies	Public policy (i.e., law) makers
Investors	Regulators
Litigators	Researchers in other disciplines
Market analysts	Students
	Textbook writers

elsewhere (e.g., Shugan 2002a) and argued here, every research article should have at least one audience. Having an ultimate substantial external audience is one of several necessary conditions for our research to have a substantial impact. Of course, implementation issues are nontrivial (Rynes et al. 2001).

Table 1 provides fifteen possible audiences for our research beyond fellow researchers. Although we may have a comparative advantage and greater impact on some audiences than on others, the argument here fails to favor one audience over another. This later topic awaits future scrutiny. The current argument intends only to emphasize that we should understand specific audiences, choose research problems that are interesting to those audiences, and try to impact those audiences.

Writing for Us

Before arguing the absolute necessity and urgency of creating research streams that are ultimately interesting to external audiences, it is important to emphasize that research published in top-tier journals must remain at least of interest to fellow researchers. A contribution to the academic literature remains a requisite.

Reaching only external audiences, despite the urgency, remains insufficient. A simple survey or simple spreadsheet model could, and often does, satisfy many external audiences. Answering many practical research questions often involves only straightforward (albeit adept and diligent) application of the well-known extant literature of methods, models, strategies, and so on. Many external audiences have great interests in tutorials, instructive applications, and the arbitrage of interesting research from

other disciplines. Despite the usefulness and interest in these activities, research with these objectives seldom provides a sufficient contribution for publication in top-tier journals such as *Marketing Science*.

We must realize that most research is unsuited for publication in top-tier journals. Top-tier journals will continue to require advancements over the extant literature. Unlike the trade press and other forms of publication, top-tier journals require more interest to an academic audience. Hence, top-tier journals articles require more innovation over the extant literature than a textbook. Top-tier journals require more compelling arguments for validity and rigor than second-tier journals. Top-tier journals require more generality, particularly across industries, than popular news publications. Simple arbitrage of models published elsewhere is insufficient for publication. Top-tier journals must reject straightforward applications or tutorials that fail to advance the state-of-the-art. Using Hauser's (2001) tier distinctions in research, Tier 1 (i.e., top-tier) journals require some degree of innovation, new conceptualizations, an ability to generalize findings, and sufficient contribution over the existing literature. Publications must seek to ultimately impact both the external audience and also advance the published academic literature. The primary purpose of a journal is to archive original research. There is little justification for using scarce journal pages to archive what has already been archived elsewhere.

Foreboding Trends

It is apparent that most business research published at top-tier journals originates at business schools within universities. Business schools subsidize that research both to help the advancement of knowledge and also because subsidization has traditionally been in their own self-interest. Business schools enjoy many resources that are spawned directly or indirectly by research activities. Without those resources, business schools would be unlikely to survive and, of course, to continue to fund research.

To understand how research produces resources, we need only consider the sources of general university revenues. Universities have numerous sources of

revenue (Shugan 1996), including government subsidies, donations, grants, tuition revenue, patents, copyrights, fees, and licensing (Thursby and Thursby 2002). Reputation is critical for most, if not all, of these revenue sources. Reputation might dwarf teaching quality as a lure for enrolling the best students (Armstrong 1994). Research that improves the reputation of the business school provides these important indirect benefits. Moreover, research might have direct benefits when it complements teaching quality (Demske and Zimmerman 2000). Research reputation can signal quality (Stephan 1996). Finally, research programs attract enterprising faculty who, hopefully, secure additional resources.

Research in top-tier marketing journals, and in *Marketing Science* in particular, had traditionally reached external audiences. Senior faculty members in marketing who have published high-impact research continue to command high salaries (Agarwal and Yochum 2000), earning less than only operations and finance professors. Hence, senior marketing faculty members command some of the highest salaries in the business school. Of course, they might be in tighter supply than the senior faculty of other business disciplines, but it seems reasonable that one cause of their high salaries is their reputation from high-impact research and their knowledge of the marketing literature. This type of reputational capital is extraordinarily enduring (Moore et al. 2001), which explains why business schools find it difficult to substitute cheaper nonmarketing faculty or practitioners.

However, business schools remain in constant flux. Although they have prospered (and possibly survived) because they adapted to the changing environment and the changing needs of their constituencies, they face new forms of competition from corporate education (Schleede 2002). As different fields bring promising new approaches to many difficult business problems, business schools have modified their programs, discontinued old initiatives, restructured departments, eliminated courses, and changed their hiring priorities. These efforts were usually focused on better reaching external audiences (Zell 2001). In many business schools, research centers focused on specific external audiences are popular. These research centers tend to focus on a variety of valuable

activities, including research targeted toward external audiences (Santoro and Betts 2002).

Sometimes it takes time to evaluate new approaches. Although adaptation to changing environments can creep along hardly noticed, there is a day of reckoning, reconciliation and reconstruction. By focusing our research on external audiences, we need not fear environmental changes and may benefit from them.

Currently, we are now witnessing several interesting, and possibly foreboding, trends. Departments such as finance and accounting have done well and continue to do so. Many graduate level finance textbooks (e.g., investments) continue to cite top-tier finance journals. Graduate-level marketing textbooks, as well as graduate courses, should similarly rely on research in top-tier marketing journals. It would indeed be ominous if research, appearing in top-tier marketing journals, were failing to contribute to the educational process. Although there is a relationship between research reputation and both business school rankings and MBA performance, new measures of research adopted by business magazines fail to correlate with the schools and departments that conduct the most influential research (Liebowitz 2000). Finally, each academic discipline is becoming more accountable for its individual contribution (Pearce 1999, Schneider 2002) to the business school. Hence, weaker academic departments find it more difficult to benefit from the halo of stronger departments.

Consistent with textbook citations trends, anecdotal evidence suggests that published academic research in marketing is diminishing from graduate level business courses in marketing and disappearing from the undergraduate curriculum. Although start-of-the-art research might be inappropriate for these venues, we would hope for at least a positive complementary relationship between our research and what we judge as valuable to teach. We would hope some of our research topics would interest some of our students, if not the research itself. Moreover, we might hope that knowledge of the marketing literature provides a comparative advantage for teaching marketing (Demski and Zimmerman 2000).

New doctoral students in finance and accounting earn some of the highest salaries (e.g., see the AACSB

Salary Survey). Perhaps they are in short supply because knowledge of their literatures has value outside of academics. Beyond that reason, perhaps the skills acquired in doctoral programs are valuable and few substitutes exist. Unfortunately, new marketing doctoral students fail to do as well as these other disciplines and not as well as doctoral students of the past. New marketing doctoral students now earn more than only doctoral students in economics and management. They earn less than new doctoral students in quantitative methods, information systems, operations, accounting, and finance.

Of course, there are supply-side issues as well as issues involving different opportunity costs. However, overall supply remains short (Merritt 2001). Perhaps, marketing doctoral students have fewer opportunities outside of academics than other doctoral students. Maybe our doctoral programs provide less valuable skills that result in fewer opportunities. It is also possible that doctoral students without knowledge of the current marketing literature (i.e., our research) and trained elsewhere are becoming adequate substitutes for our students. Consequently, substitution lowers starting salaries. Of course, this argument provides implications concerning the value of the knowing the marketing literature (i.e., our research).

Another mentioned trend is an increasing tendency for marketing faculty to publish in journals not read by marketing audiences. Although reaching broader audiences is certainly admirable and should be enthusiastically encouraged, it should not be an alternative to reaching marketing audiences. If we have any comparative advantage relative to any other disciplines, that comparative advantage should be in speaking to marketing audiences. With that advantage, knowledge of the marketing literature (i.e., our research) proves value-added. Moreover, doctoral students from other disciplines (who are less aware of the marketing literature) become more substitutable for our students (at all levels) because knowledge of the marketing literature provides less value. Knowledge of our research should provide some value-added to our students.

Hence, when doctoral training in marketing (and knowledge of our literature) provides more value-

added (in reputation or teaching) to hiring institutions, we would have both supply and demand side effects, leading to higher salaries. More value-added occurs when research is more relevant to both students and other key external audiences of the university than research in other disciplines. Unfortunately, current research topics might be of less value than research topics of ten years ago. We must ensure that some of our research retains relevance to external audiences. For example, improving marketing decision-making (Shugan 2002b), creating methods of collecting better data to solve marketing problems, discovering why some firms perform better than others, and developing methods to extract needed information are just a few important topics. Moreover, rather than providing piecemeal tools, we need more innovative and holistic perspectives (Catterall and Clarke 2000).

Finally, although *Marketing Science* has done very well on recent impact studies and now outranks all but one marketing journal, there is a darker side. Our success comes as much from the decline of the other journals as from our own improvements. Marketing journals enjoy considerable impact but less than they once did.

Writing for Others

As citation analyses show, disciplines that survive do so by impacting an external audience. The external audience for a basic discipline like mathematics can be from other academic disciplines such as physics and engineering. The external audience for a more applied discipline like medicine can be very broad—physicians, medical researchers, hospitals, HMOs, consumers, public policy makers, the popular news media, and so on. As the discipline becomes more applied, the external audience should grow broader.

For some research, the appropriate audience might consist of an exclusive (i.e., insular) small set of fellow researchers doing related research. For this limited audience, using journal pages (that reach thousands of readers) is often inefficient. Most (albeit not necessary all) research published in an applied academic journal should aspire to reach a somewhat broader academic audience and, perhaps, an exter-

nal audience as well. Research should aspire to more than creating knowledge; it should also create useful knowledge. Research that has a broad external audience brings many benefits to a business school. We should strive to reach end-user audiences who would ultimately benefit from our labor, possibly using different intermediaries (e.g., textbooks, trade publications, consultants). As research disseminates through textbooks and other instructional materials, there are gains in student learning that enhance the value of students to employers. As research disseminates through practice, there are gains in efficiency and potential societal benefits. As it disseminates through popular media, there are gains in reputation effects that lead to increased donations and student applications (Armstrong 1994). However, targeting intermediaries suggests using suitable writing styles.

The Author's Dilemma

Let us consider one possible reason why research often fails to target external audiences. Consider one typical difficulty an author faces when submitting an interesting manuscript for practitioners. Suppose this manuscript proposes that under some conditions a marketing decision maker should take particular actions not suggested in prior research. Suppose further that the manuscript provides strong theoretical arguments. The referees respond that the model is interesting but lacks empirical evidence. The referees respond that the author should observe practice and check the consistency of the data with the recommended actions. Unfortunately, if the author finds the sought consistency, the referees accept the model's validity but conclude that the result is uninteresting because the recommended actions are already being taken. If the author finds inconsistency with observed actions, the referees reject the models' validity because knowledgeable decision makers are taking actions different from the model's recommendations.

Consider another typical difficulty. A manuscript proposes a new method that purports to help decision makers make better decisions. The manuscript implements the method and concludes with improved decisions. The manuscript may also contain a testimonial from a decision maker that the method is interesting and helpful. The referees respond that the method

fails to be interesting because it fails to include observed and latent variables found in previously published methods. Moreover, the referees respond that testimonials are unconvincing because a decision maker might like the outcome of the method (i.e., it supports the decision maker's political position) despite a lack of validity. The author might respond that the decision maker lacks data on these additional variables and that there is insufficient data to include the latent parameters. The referees conclude that the manuscript fails to improve the state of the art.

Still another difficulty is that some assumptions eliminate some audiences. For example, the assumption that some decision makers are making optimal decisions makes the research less interesting to those decision makers. The assumption that markets are efficient diminishes the importance of marketing. The assumption that decision makers have abundant numeric data makes some research uninteresting to decision makers who must rely on only nonnumeric data. When we seek to advise an external audience, we must make assumptions appropriate for their decision making contexts (e.g., see Shugan 2002b). It is difficult to enhance the value-added by marketing activities while assuming marketing provides no value-added. We must focus on the value added by marketing (Srivastava et al. 1999).

Given these difficulties, it is unsurprising to find research that fails to interest external audiences. Many manuscripts now appear to claim different contributions. They claim, for example, to add new variables, estimate new parameters, model new phenomena, provide self-insights (as well as insights for fellow researchers), better understand decision maker behavior, or explore new data sources. These latter contributions are not necessarily inconsistent with reaching an external audience, nor are they necessarily uninteresting. They can be valuable. However, we must encourage these cloistered authors to develop intriguing implications that are of interest to external audiences. We need to change the relative weights in our evaluation process to encourage research that has the potential to dramatically impact external audiences. We should be more sympathetic to that goal and more aware of the interests of external audiences. For example, rather than having goals of adding new parameters or modeling new phenomena, our goals should

be to reach an external audience by, if necessary, adding new parameters or modeling new phenomena. The external audience's interest should define our research strategy rather than merely augmenting extant models or quantifying phenomena.

Can Referees Evaluate Interest?

To be more supportive of research targeted at external audiences, referees must understand the interests of those audiences. We might wonder whether referees have that facility. As referees evaluating research, we effortlessly assess our own interest, but we must struggle to assess the interests of external audiences. Their interests can be surprising.

For example, I have supplied testimony in multi-million-dollar litigation suits involving multimillion-dollar settlements (in one case, 50 million). One case involved the simple definitions of marketing terms in licensing agreements such as a product and new product success. It might appear that research for this purpose would have little interest. Perhaps a referee could appreciate this seemingly aberrant research topic after being provided the detailed issues of the litigation. Hence, as referees, we should be open (but still vigilant) to manuscript arguments regarding the relevance of particular research to external audiences.

For another example, from litigation, I have found that the different models favor defendants and other models favor plaintiffs. What would be a conservative assumption for a defendant (because it tends to increase damages) would be an unacceptable assumption for the plaintiff, because the assumption is biased (i.e., overstating damages). Although this issue is of critical interest to litigators, again referees might fail to appreciate the distinction between plaintiff models and defendant models.

Of course, beyond litigators, the same problem arises for other external audiences such as practitioners, regulators, and the popular news media. It is relatively easy for academic referees to judge the novelty of research to the academic literature. It is far more difficult to judge the evaluation of research that claims to impact practice. For example, academic referees are better able to judge rigor, innovativeness, and consistency than potential interest to practitioners. Hence, despite repeated pleas

for research of greater interest to external audiences, it is difficult for referees to make the appropriate compromises. For example, research on an extremely interesting and difficult topic might warrant less contribution on other dimensions. Likewise, research of little interest to external audiences requires a greater contribution on other dimensions. We know that compromises are necessary because every manuscript is unable to accomplish every objective. We must evaluate manuscripts within the context of their research objective (Shugan 2002b).

Using nonacademic referees is an option. Some of our nonacademic referees are absolutely excellent. Unfortunately, nonacademic referees are sometimes unable to adequately judge whether submitted research represents a significant incremental advance over the extant academic literature. Moreover, nonacademic referees forgo the academic rewards associated with involvement in the editorial process and formal associations with journals. Requesting painstaking reviews from nonacademic referees can be an exorbitant request. Perhaps, we could ask nonacademic referees only to judge the importance of the findings, rather than the contribution of the entire manuscript.

Consequently, academic referees are left making judgments concerning the tastes of external audiences. This task is difficult. We academics can easily judge whether submitted research augments the extant literature and meets high levels of rigor, but judging the interests of an external audience presents difficulties. The only option is for the researchers to bear the burden of proof. The researchers must present compelling arguments that their research is relevant to an external audience. They must convince the referees that their research has the potential ultimately to impact that external audience. They must argue that their research stream should ultimately cause someone to do something differently. There are a multitude of ways to bolster that argument, including citations to popular business publications, quotes from trade association releases, recent actions by firms, documented developments in observed markets, and quotations from target audiences. Researchers should make the best case they can for interest to external audiences.

Meanwhile, as referees, we should recognize our limitations in judging the interests of external audiences (Adams 1993). Because of possible unfamiliarity with their interests, we must remain open and receptive on this issue. We must be sympathetic to the great difficulties that enterprising authors who admirably try to target external audiences encounter. We must be receptive to less than completely decisive arguments regarding external interests. A good-faith argument by enterprising authors should be respected and admired. We should be enthusiastic when courageous authors try to tackle research of interest to external audiences, and that noble effort should make a marked difference. We should also remember that the impact of some interesting research might be less salient in the short term than in the long term after the research stream developments.

Finding Interesting Problems

There are many ways for researchers to target the interests of external audiences and for researchers to impact those audiences. Direct communication with members of the external audiences can be invaluable. Practitioners, for example, can easily communicate the pressing problems that face their employers.

For the shy researcher, alternatives exist. For example, consider conduits. The popular business press, trade publications, the broadcast media, business-oriented conferences, newsletters, and conversations with senior faculty are possible conduits. There are also generic needs. We know, for example, that practitioners always have interest in increasing profits, increasing efficiency, exploiting new technologies, understanding the impact of changes in the market, and defending against competitive actions. Regulators have interest in implementing new legislation on marketing practices. Public policy makers have interest in changing public sentiment about marketing practices and new emerging markets. Litigators have interest in calculating market damages (reputation and sales). The popular press will have interest in current marketing events. Investors will have interest in the impact of marketing actions on future firm equity.

Practitioners: What They Know and Need to Know

Let us now consider just a few of many outstanding external audiences, starting with the practitioner. For applied business disciplines like marketing, finance, and accounting, the Holy Grail is discovering answers to research questions that ultimately profoundly impact practice. The mission statements of virtually all business schools emphasize advancing practice through effective training, relevant business research, or focused consulting. As management science impacts, at least, production and inventory methods, as economics impacts, at least, public policy and regulation, and as finance impacts, at least, investments and the creation of new financial instruments, marketing science should, among other objectives, help organizations enhance the value of the marketing function. Hence, practitioners persist as a critical audience.

Many recent articles in marketing science provide invaluable implications, at least, for practitioners. For example, Swami et al. (1999) provide practitioners a decision support system for entertainment products. Ofek and Srinivasan (2002) derive a measure of the market value of a product attribute that helps a firm decide whether and which improvement in that attribute is profitable.

Neelamegham and Chintagunta (1999) provide practitioners with the ability to forecast the success of new product based on launches of past products. Moe and Fader (2002) help practitioners develop forecasts for their new products prior to their launch using advance purchase orders. Xie and Shugan (2001) provide conditions when advance selling will help practitioners and strategies for setting spot and advance prices. Moshkin and Shachar (2002) consider the different causes of brand loyalty (Wernerfelt 1991) and how ignoring one cause (consumers unaware of lower prices elsewhere) could provide incorrect estimates of price elasticities. Hence, pricing decisions should consider that, in the short term, some consumers are unaware of price changes. Biyalogorsky et al. (1999) provide creative techniques for pricing to improve profits. Iyer (1998) determines how manufacturers

should coordinate distribution channels when retailers compete with price as well as important non-price factors (building on Jeuland and Shugan 1983, 1988, monopoly analysis of shelf space/quality). Kim and Staelin (1999) show that manufacturers should help retailers increase their spatial monopoly through merchandising activities. Bergen et. al. (1996) find that manufacturers should create product variants so retailers can avoid direct competition by not carrying the same products. More recently, Kumar et al. (2001) help manufacturers alleviate the retail pass through problem by strategically supplementing trade promotions. As these examples illustrate, providing implementable strategies or theories allowing instrumental application (Cornelissen and Lock 2002) is critical. Readability is also important. As Rotfeld (1994) states: "Our subject is not particle physics, we are selling soap."

Let us briefly consider some of the complex issues surrounding research with this admirable objective.

Practitioners, like other external audiences, can forcefully articulate their concerns and initiate potential research questions. However, perplexing to many researchers, external audiences sometimes claim to have answers of their own to our research questions. Given those claims, one might wonder whether academic research can yield answers superior to those of external audiences. These audiences arguably possess greater knowledge of institutional facts and experience. The consequence is both a healthy diversity of opinions about this issue and a dysfunctional impact on the review process.

Unfortunately, our review process reveals less than a consensus on this issue and no appropriate role of research relative to practitioners. Rather than attempting to resolve that debate here, let us instead try to understand the different viewpoints, the evidence that each viewpoint provides as validation, and take this issue out of the review process. Until our discipline resolves this debate, we should try to remain open to research adopting different viewpoints. We should also avoid making this debate part of the review process for a single manuscript. It is distracting, inefficient, and futile to ask authors to resolve this issue within the context of a particular research project. This issue deserves public debate and should be kept out of the review process.

Concerning practitioners, the issue becomes what they know, what they need to know, and what we can tell them. Certainly, our assumptions on this topic determine what we believe practitioners will find interesting.

Of course, it is absolutely critical we avoid logical inconsistencies when providing recommendations to practitioners. We should not first assume that practitioners are already making optimal decisions in equilibrium and, subsequently, recommend that they adopt these same decisions (Shugan 2002b). We can predict the course of a game in which each player makes optimal decisions but providing recommendations for players in an assumed equilibrium is impossible. We can only advise those gambling on the outcome of the game. Hence, models assuming practitioners make optimal decisions are very relevant for regulators who can regulate practitioner actions but less so for practitioners themselves. Models to advise a decision maker must derive the optimal decision and not start by assuming it.

Given that caveat, let us consider several viewpoints about how research can help practitioners. One viewpoint argues that imperfect practitioners fail to make the best decisions. Although their decisions avoid disastrous outcomes, their decisions suffer from similar defects in decision making as consumers. This imperfect practitioner viewpoint suggests that practitioners can improve their decisions and can gain from using models, at least because the models make their decisions more consistent. They also argue that practitioners are unable to extract all the important information from available data and, by using better methods, we can improve their decisions.

This viewpoint suggests several roles for academics. For example, we can try to help practitioners avoid biases by suggesting procedures to improve their decision processes. We can analyze data and extract information useful for decision making. We can optimize complex decisions and provide better answers. We can suggest qualitative rules of strategy that determine when particular actions are better. We can provide creative new ways of possibly achieving their objectives using emerging theories. We can build models for practitioners. These roles represent only a few examples.

There is also an alternative viewpoint. It argues that practitioners have extensive experience and knowledge about which actions are best. In fact, some academics believe that practitioner actions are optimal. Given that reasoning, practitioners provide an excellent source of information. Practitioners can tell us not only what problems are important but also the best actions to take to solve those problems.

Remarkably, those who agree that practitioner actions are near optimal still hold diametric opinions on the implications of that agreement and the role of academic research. One opinion argues that practitioner knowledge extends to an understanding of the casual relationships between actions and outcomes. The implication is that academic researchers can learn both optimal actions and the underlying casual theory from practitioners. This viewpoint limits the ability of academics to help practitioners. Academic research must turn to a different external audience or hope to develop improved technology (faster than practitioners develop it) for future use.

Other researchers provide a contrary but more complex argument. They argue that, although practitioners do indeed make optimal decisions, they fail to understand the underlying casual relationships. Hence, they are unaware of the why their decisions work and only know what works, presumably by experiment, experience, or attrition. To understand this argument, consider the following analogy.

Suppose we want to learn about flight and hunting. Golden eagles are particularly apt and adept at both. Suppose golden eagles could and would talk with us. We might wonder if eagles would provide us with the knowledge that we require. It is unlikely, however, that the eagles could help. Although eagles might be skillful and elegant at flight as well as hunting, it is unlikely they understand aerodynamics or know how their variegated color helps camouflage them from their prey. Evolution has given eagles some marvelous tools and the uncanny skill to use those tools, but wondrous eagles may have little knowledge helpful for building improved tools. Moreover, that knowledge is unnecessary for them to thrive. Similarly, polar bears need not understand why appearing white is desirable (their fur is actually translucent); it is only necessary that white polar bears have higher

survival rates. Expert automobile drivers need not understand the chemistry of tetraethyl lead in stratified charge internal combustion engines. They only need to know what works rather than why it works.

As noted, practitioners could learn optimal actions by experience or by experimentation. Perhaps, learning seldom or never occurs and, by attrition, only fortuitous practitioners who serendipitously take the best action ultimately survive. These survivors might know which actions historically worked and which did not, but they might have little understanding about why particular actions worked. Hence, successful practitioners can instruct us as to what works but can not necessarily tell us why.

The survivor argument suggests that understanding causality is unimportant and, therefore, there is little gained by asking practitioners about causality. It would be similar to asking the winner of a random-drawing lottery how they choose their winner numbers. Although the winner might convey some strategy, the strategy would be irrelevant for choosing the winning numbers for the next random draw. One could certainly ask practitioners what actions their employer took and what were the outcomes. However, ascertaining causal relationships would remain elusive.

Despite the apparent logic of the survivor argument, there is an interesting paradox in this argument. The argument suggests that survivors (again, there is no need for adaptation) take optimal actions but fail to understand why (i.e., causality). Presumably, the understanding of causality is unnecessary for survival because, if it does matter, then those who understand would be more likely to survive. In other words, for consistency, those who understand causality should do no better than those who fail to do so. The logical conclusion is that understanding causality fails to help practice. Practitioners gain little or nothing from better understanding causality after they already know which actions work. Hence, researchers who focus on understanding provide practitioners with little of interest. Of course, the opposite conclusion results for the imperfect practitioner viewpoint.

Beyond the survivor and the imperfect practitioner arguments, there is a middle ground. There is still another view that practitioners differ in their talents.

Some are excellent at what they do while others are not. This view seems prevalent among practitioners themselves. Many practitioners believe in learning from strong performers. However, that argument also has an interesting paradox beyond the lottery winner problem.

It seems that if weak performance persists over time (i.e., not everyone becomes a strong performer), then it must follow that many weak performers are unable to learn. Strong performers apparently have innate skills (like the eagle) that are difficult to acquire. Moreover, strong performers are in limited supply, so they are unable to replace all weak performers. Hence, only a few latent strong performers can learn to develop their potential.

Of course, the obvious question arises regarding our role as academics. If practitioners already take the best actions, we are unable to provide advice about actions. If practitioners fail to understand causality, but can perform well without that understanding, it is unclear how increased academic understanding will ever help practitioners. We are unable to provide value-added by providing explanations. Finally, if strong performers have innate skills, we are unable to transform weak-performers into strong performers.

We might wonder whether a complete understanding of how eagles fly will help them fly better. Moreover, it is unclear whether that understanding will help us construct an airplane. Few airplanes flap their wings and no eagles have jet engines. Hence, although enhanced understanding can be beneficial, application often requires invention, experimentation, implementation skills, and knowledge of historical procedures. Ironically, airplanes fly faster and higher than eagles.

One option is to pursue a different audience than practitioners. Another option is to make some concessions to these somewhat extreme viewpoints. For example, perhaps inertia from past successes and luck can allow bad practice to persist for some time. Perhaps the environment is constantly changing, and practice is always behind. Perhaps improvement is always possible because it is limited by extant knowledge while extant knowledge continues to increase at an extraordinary rate. Perhaps technology is always improving, and it takes time to exploit the recent

advances in technology. Perhaps there is a constant retirement of strong performers and a constant birth of latent (but undeveloped) strong performers who require teachable skills or decision-support systems to fully develop their potential.

To justify our pursuit of determining relationships or understanding causality as an objective to help practitioners, we must concede that enhanced understanding can lead to better actions and that better practitioners have a better understanding of causality. To justify our development of new methods as an objective to help practitioners, we must concede that technology is improving and that the methods of today were impossible to use in the past. To justify our development of new models, we must concede that there is always more to learn and that, at any point in time, improvement is impossible.

Perhaps markets, the environment, and technology are constantly evolving and technology is constantly improving. Hence, understanding is never complete and continues to evolve over time. If the practitioners world continues to evolve over time, practitioners might always gain from a deeper understanding of causality. This view requires us to either model change as an ongoing activity or to recognize that our models only capture a snapshot of a moving target. It also requires us to focus a substantial part of our research on changing markets and on the exploitation of new technologies. We can identify many of these opportunities by talking to practitioners or perusing popular business publications.

Beyond the issue of whether practitioners understand causal relationships and are willing to explain that understanding to academics, there remains a controversy about sample sizes. As mentioned earlier, we might wonder whether the testimonial of one practitioner is sufficient to reveal a causal relationship or certify the validity of a model.

One viewpoint often voiced in the review process is that a sample size of one is insufficient. One practitioner appears to represent only one interpretation, the observations of only one lifetime, only one set of experiences, and often only one industry. Clearly, the academic literature represents the combined wisdom of many.

However, if it is true that one observation is insufficient, that implies an underlying variance across experiences and across industries because, without variance, one observation would indeed be sufficient. If every member of the population is the same, a sample size of one is entirely adequate. However, if there is variation across industries and some actions work in some industries and not in others, that variation implies that our academic theories might be industry specific. It is likely that stronger theories will require the recognition that some theories must be industry or occasion specific.

We close this discussion by examining a few excellent external audiences that remain virtually unexplored by researchers in marketing.

Market Analysts

Market analysts help investors determine the relative strength of different brands within a market and the future prospects for the brands. Accounting researchers have certainly discovered this intriguing external audience (Lee 1999). Examples of key research issues include the resilience of the brand to competitive entry, the strength of buyer preferences, the rate of new product introductions, and expectations for future prices.

Recent research in *Marketing Science*, for example, such as that of Chen et al. (2002), should at least interest market analysts. This savvy research predicts, among other predictions, the impact of Internet referral services on retail profits and the ultimate fate of websites such as Autobyte.com and Carpoint.com. Investors should find these predictions of interest. Similarly, Iyer and Soberman (2000) predict that the impact of new information (e.g., available as a result of improved market research) depends on whether it facilitates product improvements attractive to the product's existing customers or competitor's customers. One of many other articles is Balasubramanian (1998). It predicts the eventual impact of competition between direct marketers and conventional retailers.

Thus far, researchers in finance dominate research with investment advice. Although their cash flow analyses are sophisticated, the underlying models for

projected sales and market development are primitive. There seem to be endless opportunities to apply marketing theory to analyze the current market and project future prospects. Moreover, we should always be vigilant in recognizing employment opportunities for our students.

Students, Educators, and Textbook Writers

Universities usually value original research over research that leads to understanding that only produces competence (Butler 2001). Of course, doctoral students are far more likely to appreciate original research than undergraduate students. However, undergraduate textbook writers remain a critical audience. Textbooks provide a vital distribution channel for our best research. If our best research fails to eventually interest textbook writers, it might fail to interest other audiences as well. Graduate textbooks in finance frequently cite leading finance journals. Marketing textbooks should do the same for the leading marketing journals.

Syllabi for courses such as Financial Management, Corporate Finance, and Investments frequently include readings from the *Journal of Finance*. Similarly, course syllabi for MBA marketing courses, and the basic marketing course in particular, should always include readings from the top marketing journals, such as *Marketing Science*.

To foster this outcome, we should flaunt our research in a form more amenable to this audience. For example, we might write more informative abstracts, use revealing keywords, provide self-contained tables that summarize primary findings, provide self-contained figures illustrating important insights, provide qualitative or conceptual implications (Cornelissen and Lock 2002), avoid excessive jargon, and provide illustrative examples. We should also emphasize the interesting findings of our research rather than the intricate process leading to those findings.

Research of an explanatory nature is particularly valuable. For example, explanatory research that determines why prudent firms engage in particular

marketing activities should interest both students and educators.

There are many examples of research relevant for this audience as well as for other audiences. Kalra et al. (1998) explain the puzzling finding that, in general, an incumbent reacts to a new entrant after a significant delay, by examining uninformed consumers after entry. Gupta and Loulou (1998), in an intriguing article, discover that the optimal channel structure decision depends on interactions between two parameters: the degree of substitutability between products and the level of investments required to achieve production cost reduction. J. Miguel Villas-Boas (1998) shows that manufacturers will increase the differences between products in the product line to overcome conflicting incentives by the downstream channel. Bhardwaj (2001) explains why some firms in a competitive market delegate pricing decisions to agents and other firms do not. Sayman et al. (2002) provide an extremely valuable and insightful empirical link between channel coordination (e.g., Jeuland and Shugan 1983, Gerstner and Hess 1995, Ingene and Parry 1995), brand positioning (Bronnenberg and Wathieu 1996), and store brand strategy (Hoch and Banerji 1993). Also, the investigation of third-party information providers, now widely available on the Internet, has led to many articles that clarify the nature of the impact (Lynch and Ariely 2000) and possible asymmetric effects (Shaffer and Zettelmeyer 2002).

Of course, these articles and others can readily provide recommendations and value for multiple audiences. For example, Eliashberg and Shugan (1997) provide a descriptive model for understanding product evaluators, together with normative implications for manufacturers of these products.

Explanations for marketing practices, empirical regularities (often call stylized facts), and market phenomena can help students of marketing better prepare for successful careers. Explanations that are practical, are unanticipated, lead to different actions under different observable conditions, and generalize to more situations tend to be more interesting. This research would obviously be successful if many students would make different decisions after being exposed to the research.

To my personal frustration, some students argue that the only way to acquire business knowledge is by soliciting that information from seasoned marketing practitioners. We need to ensure that our courses provide real value-added derived from our research. Our rigorous research should distinguish between business myths and authentic fundamental relationships. Our empirical endeavors should distinguish between casual speculation and meticulous theoretical testing. Our research should distinguish between one individual's casual observations and the critical appraisal found in a large body of literature.

Litigators

I have found litigation to be a fertile area for provocative and important research problems. There exists substantial litigation on a variety of fundamental marketing issues. One issue involves estimating damages resulting from a marketing action or the absence of a marketing action. One key research topic is the appropriate approach to assessing damages. For example, one can compute damages by examining historical trends before and after the alleged damages. An alternative is to do a cross-sectional analysis comparing the allegedly damaged firm to undamaged ones. Another key research question is whether it is appropriate to use different models for defendants and plaintiffs (Shugan 2002c).

The Popular Press

The popular press is interested in change and the impacts of change. One might use models to forecast the long-run impact of new technologies, changes in cost structures, or new government regulations. One might use models to explain why firms are undertaking actions and predict the outcome of those actions. One might use models to predict the likelihood of success of new products and new businesses. One of the earliest successful marketing models predicts the sale of color televisions (e.g., see Mahajan et al. 1995).

Regulators

Some of our research already adopts both the economic paradigm and specific economic models. These

models (which characterize equilibria given optimal decisions under particular rules of the game) are ideal for advising influential regulators who dictate the rules of the game. However, we must remember that intervening regulators will have intense interest in social welfare implications.

Market Research Professionals

Market research (MR) professionals represent one of our favorite audiences. Many *Marketing Science* articles provide new and efficient methods for extracting decisive information from readily available data. Although past research has focused on numeric data, future applications might also explore nonnumeric and other richer data sources (Shugan 2002c).

One recent example of research with, at least, implications for this external audience is Sándor and Wedel (2002). This research helps MR Professionals develop conjoint analysis designs for myriad applications that are optimal for mixed logit models or other random effects models.

All Audiences: Good Modeling Objectives

Finally, let us end by briefly discussing appropriate objectives for models in marketing science. *Marketing Science* welcomes research with many different objectives, constituencies, and audiences, reflecting the diversity in the discipline. However, the marketing discipline inherits, for lack of a better term, fundamental research objectives.

When asking a question, we look to particular discipline for answers. Sometimes, multiple disciplines provide answers. Other times, no discipline provides answers. Let us define the fundamental discipline as the place someone would first look to answer a question and define fundamental questions as questions belonging to that discipline. Hence, we expect to find the answers to fundamental research questions in the corresponding fundamental literature.

Obviously, different disciplines can provide answers to the same questions, and fundamental disciplines can change over time. However, at any point, we expect to find the answers to a particular research

question in particular literature. For example, when one asks about solar eclipses, the astronomy literature is fundamental. When one asks investments, the finance literature is fundamental. When asking about recording transactions, the accounting literature is fundamental.

Hence, among every literature's objectives is to answer the fundamental research questions of that literature. Of course, objectives can go well beyond fundamental research questions. When we have better answers to another literature's fundamental questions, we should certainly publish them. Although our literature might not be the first or second place someone might look for the answer to some questions, we can still attempt to answer those questions. Moreover, *Marketing Science* should publish those answers. Having stated that, however, we are still trusted with some fundamental questions, and we should avoid neglecting them.

Although the fundamental research questions in marketing are too numerous to list here, they are easy to identify. They are the questions that our marketing students ask. They are the questions that our consulting clients ask. They are the questions raised in numerous marketing textbooks, popular marketing books, and business magazines. They include how to execute the marketing function, how to make better marketing decisions using available information, how to develop effective marketing strategies, and how to use marketing to create more "value-added" for the buyer. Almost everyone turns to the marketing literature to find some answers to some questions related to marketing, selling, advertising, market research, channels, new products, surveys, and consumer choice. *Marketing Science* should give priority to publishing research fundamental to marketing. We should avoid neglecting the research questions fundamental to marketing. Finally, given that we are an applied discipline, we should emphasize creative research and predictive theories leading to better applications.

Conclusion

This is not a call for a 180-degree change but rather for movement on a new dimension. We need more focus on interesting research topics. We need to target

external audiences. We need more of a distinctive literature where we are the first literature on each topic, rather than the second or third.

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