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Incorporating the Managers' Perspective  
-  
A Multidimensional Approach to the  
Research-Practice Gap

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## **Abstract**

The present study aims to contribute to the research-practice gap debate by addressing the understudied managers' perspective. Based on a theoretical framework, it incorporates the managers' stance on four dimensions previously debated by scholars, namely perceived relevance of the research-practice gap, stakeholder relationships, reasons for the gap and research utilization. The small-scale exploratory study design was used in order to test the constructed approach. The sample consisted of 14 German managers, working on CEO to middle level management in a variety of German industries. In light of unclear constructs, the analysis revealed that the approach cannot assess perceived relevance. We found results that diverge from scholars' statements in relation to accessibility of research. The managers indicated Time as the prime reason disabling the utilization of research. If they utilize research, however, they most frequently use it conceptually. Our study has a number of limitations that put the value of our approach in question. Nonetheless we conclude that the debate will benefit from clearly defined constructs and an incorporation of the managers' perspective in the future.

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# 1. Introduction

Being a management researcher and being a manager are two professions that could not lie broader apart if one considers the common public opinion (e.g. Bansal et al, 2012; Boland, 2001; Burke & Rau, 2010; Rynes, Bartunek & Daft, 2001 etc.). Why management research and practice have drifted apart to an extent that almost appears to be unbridgeable (Rynes, Giluk & Brown, 2007) has kept numerous scholars and business school directors busy for at least a decade (Cassell & Lee, 2011; Saunders, Lewis & Thornhill, 2015). It is even estimated that the debate about the influence of management research on managerial practice started as early as 1958 with the first edition of the *Academy of Management Journal* (AMJ) (Mowday, 1997). The general tenor of the debate is that there is a gap between research and practice. Ever since, this topic has filled entire journals, commentaries and business-related blogs (Bansal et al, 2012). Media has covered the subject, as can be found in an article of the *Financial Times*, which extensively reported critique voiced by the UK universities minister in 2011, who called for a change of culture in UK business schools (Schiller, 2011).

Obviously, a debate exists that engages stakeholders from fields of research, teaching and practice and is commonly known as the *research-practice gap* (Burke & Rau, 2010). Rousseau (2006) described the research-practice gap as “the failure of organisations and managers to base practices on the best available evidence” (p. 256). Hinkin (2007) describes the gap as a “disconnect” (p.105) between the business community and academic research, but does not further elaborate what that “disconnect” implies. Rynes, Bartunek and Daft (2001) note that managers usually do not consult scientific theories when they develop strategies and management practices. They further note that evidence shows there are considerable gaps between recommendations by management researchers and managerial practice. An almost empiric approach to defining the gap is offered by Rynes (2007) by defining the gap as the difference of what practitioners believe in and what is actually true according to empiric evidence. According to Ireland (2012) the gap can be described “as dichotomous (i.e., the gap exists or it doesn’t) or in a continuous manner (i.e., the gap varies from positions of “relatively insignificant” to “highly significant”)” (p. 263). This list can be further expanded at one’s convenience, which introduces the impression of little agreement among scholars concerning definitions and width of the gap.

The failure of sufficient interaction between research and practice caught our interest during our management degree course, when we realized that there appears to be no consensus in academia about the right mixture between research and practice in management education programs (e.g. Bennis & O’Toole, 2005; Mowday, 1997; Oviatt & Miller 1989). When we first started looking into the subject we noticed that this controversy is not limited to educational programs but expands, figuratively speaking, to the greater managerial world (e.g. Aldag, 1997; Bartunek, 2007; Devinney & Siegel, 2012). Nevertheless, in our opinion, a few things can be agreed on when looking into the debate, which has expanded to a topic of enormity. First of all,

the gap describes some kind of discrepancy between the knowledge that is available (i.e. provided and made accessible by the scientific community) and the knowledge that is put to use by practitioners. Throughout this paper we will use practitioners as a synonym for managers who are active in practice. Second, one can identify three commonly discussed actors who are involved in creating the gap: research, teaching and practice. Lastly, there seems to be an urge to challenge the existing relationship between research and practice, with little agreement on how this should be done.

Consequently the debate offers multiple topics for contribution. When reading about the research-practice gap more thoroughly, these things stroke us the most:

1. The debate is huge and highly relevant to scholars. There are numerous articles, papers and journals providing explanations and solutions to fellow researchers, teachers and practitioners, depending on who they deem responsible. To put it simply: it is a big deal.
2. The debate is mostly held by scholars, who rarely consult managers, the subject of inquiry, for their opinions. To put it simply: practitioners' evaluations remain underrepresented.
3. The perception of the gap, and even its existence, differs depending on how research utilization is defined. To put it simply: what means using anyways?

In relation to those insights we identified a few voids in the literature, which we think can benefit substantially from being inspected by managers. In order to move forward in the debate we think it is inevitable to integrate managers' voices on those unanswered questions. More specifically, we are looking for an integration of practice on four topics: relevance, relationships, reasons and utilization. We constructed a framework, grounded in available theoretical knowledge that we acquired when performing an extensive literature review. We will lay out a cohesive structure that aims at incorporating the managers' perspective on the different topics. We will briefly present those four topics in the following. Theoretical grounding for each topic can be found thereafter.

For the sake of readability we will provide titles, indicating the topic of the subsequent question, which will furthermore function as headings throughout this paper.

*Relevance* - Can we assume that the research-practice gap is a phenomenon that is perceived as more relevant by scholars than by practitioners?

Taking on the perspective of a scholar, it appears more than reasonable that much energy is devoted to the subject. The application of management research by managers, among other things, is what provides meaning to their work and justifies their existence (Bartunek, 2007). To what extent managers care about the underutilization of valuable research that is being done for them is, however, not clearly answered.

*Relationships* - Where do managers see insufficient relationships among actors that are involved in the research practice gap?

As mentioned earlier three actors have been discussed by scholars as being involved in creating as well as narrowing the research gap. Each relationship between one of those actors with another can produce the ideal outcome of narrowing the gap (Burke & Rau, 2010). Scholars do see room for improvement in all interrelations (e.g. Bansal et al., 2012; Bartunek, 2007; Hinkin, 2007) where managers would lay there focus on is not evident.

*Reasons* - Do managers come up with other possible reasons that eventually lead to research being underrepresented in practice?

A lot of scholars suggest remedies (exceeding the scope of this paper), which they base on possible and plausible reasons for the research-practice gap (e.g. Anderson, Herriot & Hodgkinson, 2001; Bansal et al, 2012; Bartunek, 2007; Burke & Rau, 2010; Mohrman, Gibson & Mohrman, 2001). Yet again, the reasons they provide almost exclusively rely on theoretical reasoning and lack the managers' stance.

*Utilization* - Might the gap even be non-existent depending on the way practitioners utilize research?

The research-practice gap is a broad concept, that entails a number of concepts that lack formal agreement among scholars. One of them is research utilization. How we define "use of research" ultimately determines the width, severity and existence of a divide between research and practice (Beyer, 2011). In the most simplified expression, the debate might be reduced to non-existence, depending on how managers use research.

Tranfield and Starkey (1998) have elaborated on the characteristics of management research. They claim that management research is unique in the sense that it engages with the world of theory and the world of practice. It further implies that "problems addressed by management research should grow out of the interaction between the world of practice and the world of theory" (Tranfield & Starkey, 1998, p.353). This statement provides strong support for our purpose. We think the only straightforward way to answer the aforementioned questions and ultimately shed light on those aspects of the debate, is to consult managers on their opinion.

Therefore, our contribution to the topic of enormity, which is the research-practice gap, will be to conduct a small-scale exploratory study with managers. We will expand on this in the next paragraph, when illustrating the purpose of our investigation.

## **2. Purpose**

We explore the research-practice gap from a managers' perspective. By managers we mean individuals who align with the following definition found in the *Business Dictionary*: "an individual who is in charge of a certain group of tasks, or a certain subset of a company. A manager often has a staff of people who report to him or her" (Business Dictionary, n.d.). Our study aims

at informing the academic community about a possible way forward in the debate. With our exploratory design we probe whether our approach will be able to identify aspects of the debate, which should be revised by scholars in the future by including the managers' perspective.

More specifically, we investigate the aforementioned topics, namely relevance, relationships, reasons as well as utilization.

The scope of this study is a small sample of 14 German managers. Those managers are managers who are working on CEO to middle level in a variety of German industries. In order to test our approach, we consider this small, yet broad sample to be the right fit.

We will compare propositions about the research-practice gap made by academia with the opinions provided by the managers. The results of our investigation will be discussed, limitations analysed and possible implications outlined.

### 3. Research Questions

We will first present our research questions and in the following paragraphs we attempt to provide the rationale behind our thesis paper by depicting the literature and theory we have consulted, when creating our research questions.

Our research questions look as follows:

1. How relevant is the research-practice gap to managers?
2. Where are the involved actors (research, teaching, practice) creating sufficient outcomes according to managers?
3. What other reasons not depicted in the triangle of Burke and Rau (2010) (see Figure 1) do managers provide for the underrepresentation of research in practice?
4. How do managers utilize research, if they utilize research after all?

#### 3.1 Relevance

##### **How big of a deal is the research-practice gap to managers?**

It becomes fairly evident when starting the investigation about the research-practice gap, that it has grown to a subject of substantial severity, at least in the academic world. Assessing this severity for the practical party is unevenly harder.

As mentioned earlier a lot of efforts by scholars are directed at increasing awareness and narrowing the divide between research and practice. An increasing number of writers has acknowledged the research-practice gap in management (e.g. Bennis & O'Toole, 2005; Mintzberg, 2004; Pfeffer & Fong, 2002; Rynes, 2007; Rynes, Bartunek, & Daft, 2001; Rynes, Giluk, & Brown, 2007) in order to move forward in the debate.

Several presidents of the *Academy of Management* (AOM) have already addressed the topic, conveying a high sense of urgency to their fellow scholars (Bansal et al., 2012). One of them was Richard T. Mowday, who was referring to a devastating report of the *Task Force Report on*

*Faculty Leadership by the American Assembly of Collegiate Schools of Business (AACSB)*, in his presidential address in 1997, statements such as “these demands have taken on a new sense of urgency” (Mowday, 1997, p.335) illustrate impressively how serious the matter is taken.

Why this is possibly the case, can be explained with a statement made by Bartunek (2007), “without management, management and organizational scholars would have no work” (p.1328). In other words, conducting research for practice gives management academics the right to exist. One can assume that complaints about the relevance of management research are ultimately posing a threat to the scientific community and their work (Anderson, Herriot & Hodgkinson, 2001). Thinking in extremes, it might even put their existence at stake and lead to the abolishment of management research. This extreme notion becomes a very realistic threat as soon as business schools face a loss of funding from their industry partners due to a lack of significant research publishing (for further information consult literature on the “*publish or perish*” debate, e.g. De Rond, M., & Miller, A. (2005))

Another reason that might contribute to scholars perceiving a great discrepancy between management research and managerial practice is the mere fact that they actually have an idea about how much scientific research is conducted. The chances of being published in renowned journals are small (Van Dick, 2011) but we can assume that the chances of being published and applied by practitioners are even smaller.

What is hard to establish, however, is an idea about how much effort the practical department is putting into resolving the issues. We could hardly find reports or statements by representatives of practitioners or industries for example. Neither do scholars extensively consult managers in order to make suggestions in accordance with them. Forming an idea about how strongly managers perceive the urgency of closing the gap is therefore close to impossible.

Before diving into the topic more deeply, we will establish a first general understanding of the managers perceived relevance of the research-practice by posing the research question:

*How relevant is the research-practice gap to managers?*

## **3.2 Relationships and Reasons**

### **Where would managers direct their attention to?**

After establishing a first understanding about the perceived relevance of the research-practice gap from the practical realm it appears logical to probe for specifics. By specifics we mean possible maleficent relationships among actors, which might carry responsibility for the discrepancy according to managers and secondly the reasons that come along with it. However, we also wish to start the assessment with a blank page and question whether managers even think that relationships are not intact and knowledge exchange does not work sufficiently and satisfactory. It might as well be the case, that managers do not see a discrepancy after all. In order to be able to make an informed assessment we can draw from a vast body of literature which we will present partially in the following paragraphs.

To date business schools offer management courses that base their teaching agenda on research done by scholars and faculty members, in line with demands implied by the management professions. In this particular situation the exchange between teachers, researchers and soon to be practitioners runs fairly smoothly and naturally. Moreover, this neatly illustrates who is involved in the creation and exchange of knowledge in management, namely research, teaching and practice. Unfortunately, there is an end to this liaison - it has been said that many, if not most managers, loose contact to academia as soon as they graduate (Offermann & Spiros, 2001). The analysis of this issue often includes one or more of the aforementioned three actors, as well as the interrelations among them.

Burke and Rau (2010) offer a framework, which summarizes the themes mostly discussed in literature with regards to the debate (see Figure 1). They describe the research-practice gap in a triangular reciprocal relationship between research, practice and teaching. Depending on which relationship is in focus of a specific paper, a variety of possible reasons for the existence of the gap are offered. We consider it a useful starting point to sort the numerous existing papers according to the respective actors and reasons they address.

We are aware that we are being selective, when taking this approach and possibly neglecting other work that has been done. Nonetheless we are positive that this framework will provide a cohesive and understandable overview of the debate.

We propose that the framework also describes, what can be understood as a) the ideal outcome of a sufficient relationship between each involved actor and at the same time as b) measures that can be implemented in order to narrow the gap. Arrow A, for instance, describes how research provides accessible, understandable and relevant research to practice - given sufficient cooperation. In that fashion, Arrow B depicts the influence of practice on researcher, for example by joint research. Arrow C deals with in how far business schools produce informed, effective managers for the practice. Arrow D describes in how far practice provides business schools and therefore its students with contextualizing factors, by providing for example business cases. We think an assessment of Arrow D is difficult to establish for our sample. It might be the case for example that knowledge exchange with universities does not fall under the manager's responsibilities. Therefore, an unclouded judgement about the sufficiency of the relationship should come from teachers and universities. Arrow E and F describe the relationship between research and teaching. Since we are especially interested in the relationships practice is a part of, elaboration of Arrow E and F are redundant.

## Relationships among involved actors and possible outcomes/measures

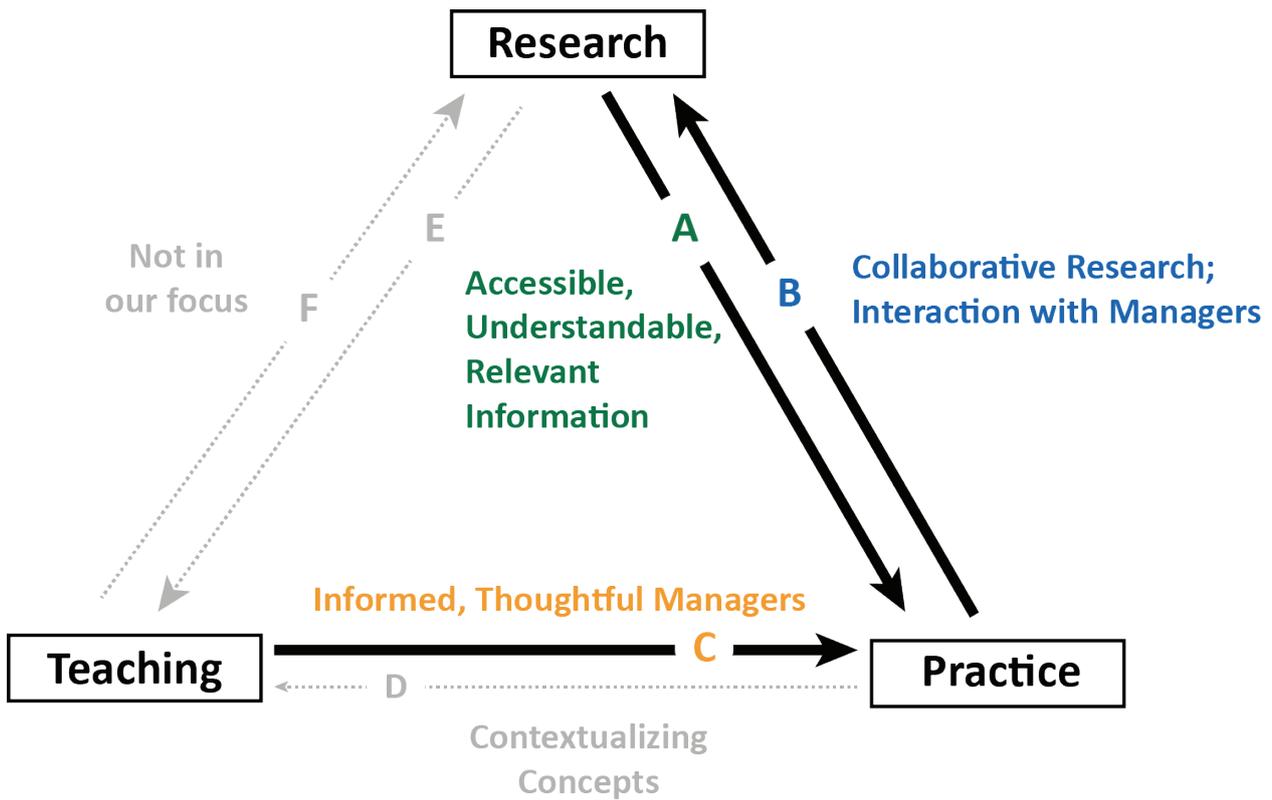


Figure 1 Adopted from Burke and Rau (2010)

While the scholars had plenty of opportunities to voice their opinion with regards to the above described relationships, we do not know the managers' stance on those relationships yet. Therefore, we would like to contribute to that debate by interviewing managers with regards to the topics often addressed by scholars, as we have depicted in Figure 1. By interviewing managers on these matters, we hope that scholars will be able to understand managers better and to review whether there is an agreement between the theoretic and practical party.

In the following, we will outline prominent arguments proposed for each arrow, depicted in Figure 1. It has to be noted that each of the arrows in the triangle is worth its own empirical work. With the following summary, we would like to give the reader an overview of the whole debate and will, therefore, compared to the vast amount of literature written on these arguments, just shortly summarize the "sub-debates" that are discussed within each of these arrows. As outlined above, we will not address Arrow D, E and F, as these relationships are out of sight for managers and they will, hence, not be able to contribute any valuable input hereunto.

### 3.2.1 Arrow A: Research - Practice

In order to assess whether the relationship between research and practice is sufficiently fulfilled, one has to consider three subjects: accessibility, understandability and relevance of research. We will provide definitions and literature further explaining the subject hereafter.

According to Burke and Rau (2010) and our own literature review the majority of articles about the academic-practitioner relationship are written about Arrow A. That arrow deals with the accessibility and understandability of management research for practitioners as well as to whether management research is relevant to practitioners.

### **Accessibility**

A matter that is assumed to contribute to the research-practice gap is the accessibility of management research and theories for practitioners (AMJ editor's forum 2007, see Rynes 2007). It is self-explanatory that practitioners can only apply research in practice, if they have access to it. There has been some criticism about the media through which research is published and disseminated (Rynes, 2007). Researchers usually publish their research in academic journals and academic language. However, it has been noted that academic journals are not very suitable for conveying management knowledge to practitioners (e.g. Saari in AMJ editor's forum 2007, see Rynes, 2007).

As Saari stated in the AMJ editor's forum in 2007, managers usually draw to research in response to very concrete problems, which introduces the first obstacle. Even though they might find a solution in research evidence, it requires a lot of effort to find it, extract meaning and transform it according to their needs (in Rynes, 2007).

Second, the choice of placement, i.e. the journals academics choose to be published in, strongly influences the spread of their work. It has been observed that academics, withdraw from academic journals, as soon as they become practitioners (e.g. Offermann & Spiros, 2011; Terpstra & Rozell, 1997). Offermann and Spiros (2011), for example, report that 31 percent of practitioners in their study of team-development practitioners stated they only find nonempirical sources helpful, whereas more academics agreed to finding only empirical studies valuable. It appears that practitioners are more attracted to practice-oriented journals, such as *Executive* and *Harvard Business Review* (Offermann & Spiros, 2011). In line with that, many commentators (Latham, Rynes, Giluk & Brown) at the AMJ editor's forum 2007, called for writing and publishing in practitioner-oriented journals (Rynes, 2007).

Even though more and more journals, including all AOM journals, have increased the availability of their articles online and in press to increase dissemination, there is still room for improvement when it comes to accessibility (Rynes, 2007).

Bearing this criticism in mind, the practice of publishing research in academic journals appears to be questionable.

To sum up, some scholars believe that a problem of accessibility is contributing to the divide between research and practice. This illustrates a possible reason which might negatively influence the relationship between research and practice. We wish to find out whether managers share this concerns and thusly make it a part of our investigation. Given they agree, this could mark potential research territory in the future.

## **Understandability**

In addition to being accessible, research must be understandable for those who wish to apply it. Some scholars self-critically reflect whether their research is understandable for practitioners (e.g. Aldag, 1997, Hinkin, 2007, Mowday, 1997).

Among others, it is Mowday, former president of the AOM, who questions whether managers understand the research and its implications for practice published in the AMJ (Mowday, 1997). He is by far not the only academic who criticizes the way research is communicated since there exist considerable doubts as to whether the scientific jargon impedes understandability. Hodgkinson, Herriot and Anderson (2001) have made observations for the field of industrial and work psychology, which is closely tied to the field of human resource management. They object the technical sophistication of articles that are published in cutting-edge journals. It has become almost incomprehensible and only appealing to the most dedicated specialists (Hodgkinson, Herriot & Anderson, 2001). Similar findings are reported by Starkey and Madan (2001) for the field of finance theory. They have observed increasing technical sophistication of articles in the *Strategic Management Journal*.

Furthermore academic research is usually presented in an objective, declarative way, which has shown to be an ineffective way of presenting it to practitioners (Boland, 2001; Mohrman, Gibson & Mohrman, 2001). As Rynes, Bartunek and Daft (2001) summarizes based on Boland (2001) and Mohrman, Gibson and Mohrman (2001): “practitioners are less motivated, or less able, to process written, declarative information than information presented in other ways” (p. 346).

In line with that Offermann and Spiros (2011) conclude based on a survey with practitioners that reports should be written in “plain language that includes ‘how and when to’s” (p.389). Similarly Cohen (2007) and Bartunek (2007) suggest research reports should include implications for practice.

Others blame the way research is conducted for the lack of understandability. Aldag (1997) notes that the factors that make a study appear more academic by increasing the validity and thus its relevance, are often also responsible for decreasing its understandability. Shrivastava and Mitroff (1984) propose that organizational theories must be based on assumptions managers make in decision making processes - only then they can be understandable to practitioners.

To sum up, the discussion reveals that scholars suggest, a few even based on managers’ opinions, that a change of language could contribute to a smoother transfer of knowledge.

## **Relevance**

When research is accessible as well as understandable, the last examination it has to pass, is the inspection for its relevance. Is there actually anybody out there caring for the piece of work?

Due to an ever more complex, fast-changing environment there is an increasing need for useful research (Mohrman, Gibson & Mohrman, 2011). How we define *useful* in the context of ma-

agement and business research, is still a matter of heated discussion. Some measure it by its methodological and theoretical rigor and others by its practical relevance - two attributes that, unfortunately, seem to co-appear very rarely in management research. Opinions about whether research should focus on being relevant to practitioners at expense of scientific standards, or vice versa, differ vastly across the academic community (Bartunek, 2007).

Hodgkinson, Herriot and Anderson (2001) proposed a four-fold taxonomy that describes the relationship of academic rigor and practical relevance to managerial knowledge (see Figure 2). *Pedantic science*, one of the four quadrants, overemphasizes methodological rigor at the expense of practical relevance and is prevalent in academic journals. *Popularist science* on the other hand offers practical relevance paired with little methodological rigor and thus moderate to no reliability or validation - a genre often found in manager guidebooks. *Puerile science* can offer neither of the two dimensions and is of little use. Finally, *pragmatic science* is what aligns methodological rigor with practical relevance (Hodgkinson, Herriot & Anderson, 2001). How the academic community can move towards this ideal of pragmatic science is still open to debate. A lot of effort has been devoted to debating about how to overcome the *double hurdle* of retaining high scientific standards whilst staying in touch with practitioners (Hodgkinson, Herriot & Anderson, 2001; Wensley, 2011).

Relationship of Rigor and Relevance on Managerial Knowledge  
Theoretical and

		Methodological Rigor	
		Low	High
Practical relevance	High	Quadrant 1: 'Popularist Science'	Quadrant 2: 'Pragmatic Science'
	Low	Quadrant 4: 'Puerile Science'	Quadrant 3: 'Pedantic Science'

Figure 2: Adopted from Hodgkinson, Herriot and Anderson (2001)

In the following, we will present arguments from three academic parties. To draw from Hodgkinson, Herriot and Anderson (2001), first, those advocating popularist science (i.e. practical relevance), secondly, those favoring pedantic science (i.e. rigor) and lastly, those wishing for an integration of both into pragmatic science.

*Popularist science* - Popularist science, the wording itself already drastically represents what Bennis and O'Toole (2007) consider the greatest fear of scholars: "being damned as popularizers" (p. 100). They criticise that the importance of peer appreciation prevents business

school professors from conducting novel research that matters to managers and can be put into practice. Instead they remain within known boundaries and perform studies about things they know how to measure. Thus, research happens in artificial settings like laboratories, using students as subjects. Furthermore, it is incremental in nature since the topics are not chosen by relevance but by gap in literature, and its titles and terminologies are often hard to grasp for outsiders (Aldag, 1997).

Scholars who root for more relevance query this rigid use of known methods. Especially, since factors that decide about good or bad managerial decisions, such as human factors, ethics and morality, remain excluded from management research because they are not measurable according to academic standards (Bennis & O'Toole, 2007).

According to (Mohrman, Gibson & Mohrman, 2011) research lags behind practice, even though they could make a useful contribution to the challenges organisations are nowadays exposed to by providing knowledge. However, not only scholars are criticizing the lack of relevance of research, it is also voiced by practitioners themselves, as Bennis and O'Toole (2005) report a renowned CEO complaining that "academic publishing [is] a 'vast wasteland' from the point of view of business practitioners" (p. 99). In their 1996 report the Task Force Report on Faculty Leadership by the AACSB claims that the gap between research and practice has widened as business schools lack business interaction and therefore irrelevance of courses and research (Mowday, 1997).

To summarize, it can be said that advocates of practical relevance criticise how scholars have lost contact to the real business world due to wrong ideals and a misguided academic incentive system.

Those upholding scientific rigor, i.e. pedantic science, however, strongly argument in the opposing direction, which we will present in the following.

*Pedantic science* - A concern of some scholars is that if researcher go for more relevant, practice-oriented research, they will loose their academic independence or freedom. They fear of becoming marionettes of executives just reporting and providing excuses for existing practices (Oviatt & Miller 1989). A fear that is understandable if one takes a look at the funding potentially at stake (Oviatt & Miller 1989). Academics want to be independent as universities are, and should remain a place, of creative thinking and basic research. By giving in to practitioners wishes to provide more applied research they fear of giving up on rigorous research methods (Oviatt & Miller 1989).

*Pragmatic science.* Again, Richard T. Mowday, then-president of the AOM, notes that it is a wrong approach to place rigor and relevance on two opposite ends of a continuum, as is commonly done in that debate. He notes that relevance without rigor is meaningless (Mowday, 1997). In line with that, Aldag (1997) reports that relevance is often mixed up with impact. However, just

because a research finding does not have impact in practice does not mean it is not relevant for practice. There might be other reasons for a lack of impact, for instance the relevance not being discovered by practitioners. He advocates for an increase of relevance, however, not for the sake of rigor. Rigor and relevance is both needed (Bennis & O'Toole, 2007). According to Aldag (1997) the task of academics should be to communicate and present research results in an appealing way for practitioners while keeping research standards. His advice is, for example, to engage a PR agency on that mission.

It becomes evident that there is little agreement among scholars, how relevance should be increased or even defined. Nonetheless, we think it is of great importance to consider managers' opinion on that part of the relationship between research and practice, too.

As opposed to the topics of understandability and accessibility, where we were able to find a few papers that have included managers opinion, relevance is a topic that appears to mostly lack those insights from practitioners. Thus gathering information from managers will be valuable.

Since the connection between research and practice is bidirectional, we will next elaborate on how practice can influence research.

### **3.2.2 Arrow B: Practice - Research**

In order for the relationship between research and practice to be sufficient, it also has to work in the opposing direction, from practice to research. Depicted by Arrow B, this relationship has received considerable attention by scholars, too. Literature on that topic focuses on the conduct of joint-research by practitioners and academics, on the co-producing of research ideas and how practitioners and researchers can generally engage in an effective relationship

As might have become evident in the prior section, practitioners and academics are assumed to be two different sets of people with different assumptions due to the different worlds they act in (Shrivastava & Mitroff, 1984). While academics deal with problems in an isolated environment where they approach a problem in a systematic, well-structured manner with an objective outlook (Burrell & Morgan, 1979). Managers on the other hand act in an environment characterized by volatility where decisions have to be made under time constraints and are naturally influenced by subjective opinions and biases (Mintzberg, 1973; Pettigrew, 1973 cited in Shrivastava & Mitroff, 1984). Based on that assumption some raise awareness that there should be a closer cooperation and exchange between researcher and practitioners as a step forward in narrowing the gap.

A matter that has already been discussed in the section *Arrow A - relevance* is the lack of relevance and, often used interchangeably due to a lack of distinction, usefulness in management research. As a way to solve this problem it has been suggested to approach the target audience, management research intends to have an impact on, namely the managers (Amabile et al.

2001; Mohrman, Gibson & Mohrman, 2011). Mohrman, Gibson and Mohrman (2011) suggested the perspective of an organization's members should be included in the research and findings should be incorporated in the organization later on. They conducted an empirical study on this matter, and found that interpretative forums, which give academics and practitioners room to share their "thought-worlds" as well as perspective-taking increased the perceived usefulness of research on the practitioner side (Mohrman, Gibson & Mohrman, 2011). Other studies conducted on that matter show that the involvement of practitioners can increase the quality of the research (Amabile et al. 2001). Companies for example can draw from a bigger participants pool and ensure a bigger sample and higher response rates.

Another advantage of enhancing the practitioner-researcher exchange is that research can be applied more effectively in practice. A method used for that purpose is called *evidence-based management* (EBM), which is the translation of theories and knowledge attained by scientific methods into managerial practice (Rousseau, 2006). In that context, an expert manager, will be a manager who bases his decisions on the best available scientific evidence and not on subjective feelings and biases (Rousseau, 2006; Rynes, Giluk & Brown, 2007).

Others, however, take the stance that a collaboration with practitioners will impede the advancement of management research. According to them, it bears the risk that only shallow, short-term, profitable ideas and projects will be conducted (e.g. Murphy & Saal, 1990 cited in Rynes, Bartunek & Daft 2001). Another worry is that the interest of organizations will outweigh the interest of employees or the society as a whole, therefore, the greater cause might be at stake (Fagenson-Eland, 1999, cited in Rynes, Bartunek & Daft 2001).

At present we do not want to enter the debate as to whether it is advantageous, or not, to include managers in the research process. We rather want to get hold of the status-quo from the managers' perspective - do they believe cooperation is already exercised in practice, are practitioners involved in co-producing research ideas?

Lastly, we wish to present the third actor and gather more information on the relationship between teaching and practice.

### **3.2.3 Arrow C: Teaching - Practice**

Arrow C depicts the relationship between teaching and practice that ideally produces thoughtful, informed and effective managers.

Before we discuss how this relationship is bespoke in literature, we would like to give a short introduction into the history of business schools. The uprising of business schools in America was controversial at first. The academies of the universities did consider it a misfit with traditional, liberal education (Oviatt & Miller 1989). Along with a rise in popularity among students, the academic community could not hold up resistance and eventually accepted the business

schools (Oviatt & Miller 1989). In 1959 during the booming postwar economy, the Ford Foundation and the Carnegie Corporation published very critical reports about business schools (Bennis & O'Toole, 2005). They described business schools as having poor quality with regards to their academic standards. They called for better faculty with a background of various academic disciplines, rigorous curricula, and emphasis on graduate programs and offered grant money to achieve that goal. Business schools reacted to that harsh call and took numerous actions to front the criticism: they established doctoral programs, hired new qualified staff, enforced more research and emphasized scientific methodologies (Bennis & O'Toole, 2005; Mintzberg, 2004; Oviatt, 1989; Pfeffer & Fong, 2002). Business schools evolved to, as Bennis and O'Toole (2005) call it, the '*scientific model*' which was characterized by conduct of scientific research and not only the teaching a profession anymore (Bennis & O'Toole, 2005).

The question relevant nowadays, is whether business schools live up to their mission and show the ability to produce thoughtful, informed, and effective managers. Even before the big financial crisis in 2008, business schools ethics were already questioned. At present, in the aftermath of the crisis, business schools are again exposed to harsh criticism. With business school graduates occupying the key positions in the financial sector, the public, as well as employers, students and deans have raised the question whether MBA, and alike programs, are able to prepare good leaders that are willing to act in an ethical manner with the skills they need in practice (Bennis & O'Toole, 2005; Goshal, 2005).

Pfeffer and Fong (2002) have conducted an empirical study analysing management education. They have reported alarming results concerning the educational product of business schools. Apparently, they found that career success is neither a function of a MBA degree nor of good grades and thus casting serious doubt on the effectiveness of business schools (Pfeffer & Fong, 2002). They challenge the relevance of business school education since "their effects on both the careers of their graduates and on management practice" (p. 79) are in question.

Some see room for improvement in the aims business schools should focus on and their respective curricula. Especially, in such a rapidly changing environment, Brooks for example, proposes that the aim should be to encourage students to take a generalist approach by recognizing the greater connections among situations (Brooks n.d. cited in Bennis & O'Toole, 2005) and they should help them to self-critically identify their conditioned reflexes (Bennis & O'Toole, 2005). Bennis and O'Toole (2005) call for business schools becoming professional schools such as medicine or law school, they argue that management is a profession, not a science. Basing managerial decisions on science is somewhat misleading "into a false sense of confidence that we are making objective decisions" (Bennis & O'Toole, 2005, p. 100), which could be potentially dangerous in a managerial setting.

When trying to identify reasons for improper education of managers, a variety of arguments is

presented. Mintzberg (2004), a renowned advocate calling for the revolution of business school education, claims that management graduates are instructed to address decision making and managing in a scientific way, which is detached from real-life demands. Moreover, teachers themselves have no practical experiences and thus limited insights into practice (Brooks n.d. cited in Bennis & O'Toole, 2005, AACSB report cited in Mowday, 1997). In addition, the structural outline of degree programs is often criticized as lacking practical insights, since it "separates learning from practice" (Armstrong, 2005, pp. 229-230). The AACSB report criticises that the aging faculty is resistant to change and unfamiliar with new technology and slow to adopt to it (Mowday, 1997). Another reason offered in literature is the evaluation system and standards for professors are misleading. As mentioned earlier in the rigor-relevance debate, the incentive system in academia is often questioned. According to Oviatt and Miller (1989) and Bennis and O'Toole (2005) professors are currently evaluated and incentivized by the rigor of their research and amount of published studies in peer-reviewed academic journals. In line with that the UK universities minister, David Willetts, has harshly criticized how rewarding research excellence has damaged practical work of business schools (Schiller, 2011). Oviatt (1989) and Bennis and O'Toole (2005), however, argue, they should be evaluated and incentivized by their classroom performance and their ability to grow competent future managers.

An opposing stance on that matter is one that upholds scientific standards. Managers should receive education that incorporates scientific research findings and processes (Rynes, 2007). Rynes voices that management is unfortunately not a profession that requires formal education, however, she strongly advocates for the importance of scientific education in order for managers to embrace scientific evidence. To date there are a lot of managers without formal education, nonetheless, formal education does not guarantee scientific knowledge. In the AMJ editor's forum 2007 (Rynes, 2007) three commentators, Cohen, Guest and Latham, seemed to agree with Rynes stance. According to them it is important that researcher educate practitioners with regards to scientific standards.

We are interested in the opinion of those depending on the quality of management school education, namely managers in organizations who are in need of well educated graduates. What is their experience, do they believe business schools produce thoughtful, informed and effective managers?

We have now provided a knowledge frame for our assessment of sufficient relationships and possible reasons. In order to infuse the managers' stance on the aforementioned topics we like to pose the following research questions:

*Where are the involved actors (research, teaching, practice) creating sufficient outcomes according to managers?*

*What other reasons do managers provide for the underrepresentation of research in practice?*

### **3.3 Utilization**

When discussing the research-practice gap with the aim of creating a cohesive picture, there is one important “how?” that one cannot leave unanswered. It is the question about research utilization - more precisely: how do managers put management research into use in their daily practice?

Since we aim at infusing the managers’ perspective on a broad scale we make research utilization a part of our approach. In the following, we will present the theoretical framework provided by Beyer and Trice (1982), which we base our investigation on. We have decided to use this framework at the expense of other useful theory since it provides a neat way of covering multiple utilization styles whilst not being overly specific. Therefore, we will be able to get a less defined but fairly broad picture.

Beyer and Trice (1982) believe the lack of utilization producing the research-practice gap, does not stem from the characteristics of the research itself but rather from characteristics within organizations who are supposed to use it. Therefore, they object that scholars see the solution for the gap in conducting more useful, relevant research, they rather deal with how organizations can be encouraged to utilize organizational research.

Research utilization involves people doing “something with research results” (p. 595), which can include a wide dimension of behaviors (Beyer & Trice, 1982). For the purpose of this paper, we will introduce a framework which we adapted from a framework presented by Beyer and Trice in their paper “The utilization Process: A conceptual framework and synthesis of empirical findings” (1982). The framework is displayed in Figure 3.

## Research Utilization

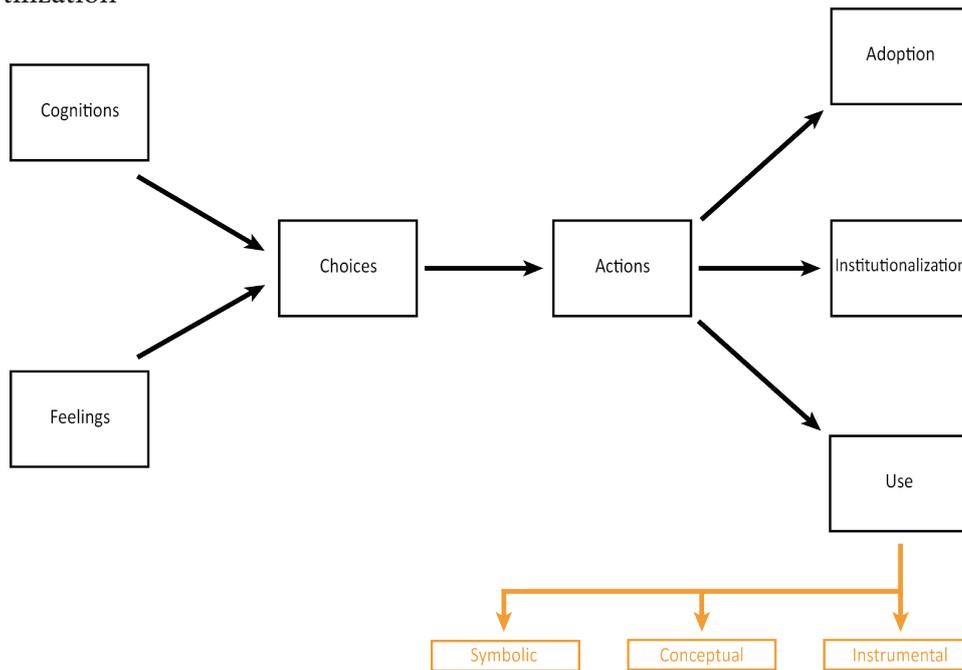


Figure 3: Adopted from Beyer and Trice (1982)

Based on Parsons' theory of action (1951 cited in Beyer & Trice, 1982) they identified four components that can be associated with research utilization. The first two are cognitions and feelings. Cognitions are those elements that are selected by an individual as relevant in the situation. Feelings in that context are the values placed on alternatives. Together they determine which alternative is chosen. These conscious or unconscious choices in turn influence the overt behavior someone engages in, called actions in this context. Beyer and Trice (1982) report 'three sets of behaviours involved in generating actions from research' (p. 597). *Adoption* is the involvement of research in decision making. *Use* is the implementation of decisions based on research results. *Institutionalization* is defined as the adoption and use of research becomes routine within a system.

In this context we are particularly interested in how managers use research theories Pelz (1978 cited in Beyer & Trice, 1982) identified three types of use, namely instrumental, conceptual and symbolic. We will ask for these three types of use in our interview to find out how the managers apply research. The three different types of use are defined below.

**Instrumental Use** - "Involves acting on research results in specific, direct ways" (Pelz 1978 cited in Beyer & Trice, 1982, p. 598)

**Conceptual Use** - "Involves using research research results for general enlightenment; results influence actions, but in a less specific more indirect ways than in instrumental use" (Pelz 1978 cited in Beyer & Trice, 1982, p. 598)

**Symbolic Use** - "Involves using research results to legitimate and sustain predetermined po-

sitions, for example, substituting the actions of the research process itself for other action, or using research results selectively or otherwise distorting them to justify action taken for other reasons.” (Pelz 1978 cited in Beyer & Trice, 1982, p. 598)

As illustrated above, the perception of the gap relies heavily on what type of using underlies one’s judgement. It might be the case that research is used by managers in a way that cannot be directly seen, which in turn would put the urgency of the debate in question. In order to get hold of that crucial information, we want to find out which “Type of Use” practitioners actually apply, when they use research. Therefore, we pose the following research question:

*How do managers utilize research, if they utilize research after all?*

## 4. Method

### 4.1 Participants

The sample consisted of 14 German managers who are all male and work as managers in middle to top level management. The employees reporting to them range from 5 - 350 employees. They work in various industries, namely: Engineering, Trading, Law, Tech, Service, Logistics and Pharmaceuticals. Their years of management experience ranges from 2 to 33 years. They have different educational backgrounds, in particular: MBA, M.Sc in international relations, German diploma in business administration, German diploma in engineering, German diploma in education, German diploma in law, and the German dual education in business administration, which combines a three year apprenticeship with an undergraduate program of business administration. The mean, minimum and maximum of the demographic data is displayed below. We will not provide a standard deviation, as the sample size is too low.

Demographics			
Variable	Mean	Minimum	Maximum
Age	44.14	28	60
Management Experience in Years	15.39	2	33
Number of employees reporting to participants	46.28	5	350

Table 1

We acquired the sample from our private or professional connections. The sample is thus limited to male participants and consists of German managers only. The sample can therefore not be categorized as random, as a sample only qualifies as random, if everyone in a population has an equal chance of being selected. (Trochim, 2006). All of the participants participated voluntarily.

### 4.2 Materials

We designed an interview containing a total of 26 questions (see Appendix 1 & 2). The interview is based on a structured interview, consisting of quantitative as well as qualitative questions. The interview is written in English and translated into German. The interview consists of five sections which relate to our research questions and are listed below. Each section was introduced with a small debriefing of content to provide context for the subsequent questions.

Section 1. - Demographics, we asked seven questions related to the demographics and professional background. These are namely age, educational background, years since graduation, current position, duration of current employment, years of management experience, number of employees reporting to them.

Section 2. - Relevance, we asked six questions related to the personal relevance of research.

Section 3. - Utilization, we asked three questions related to their utilization of research as well as one control question aiming to assess whether they use research at all.

Section 4. - Relationships, we asked five questions about the interrelations between research, teaching and practice, based on the framework proposed by Burke and Rau (2010) (see Figure 1).

Section 5. - Open questions, we asked three open answer questions namely,

*Would you like to apply more management research and theories in your job?*

In case of negative response: *Why?*

*What hinders you on using more research?*

In addition to the full version we created a second version of the interview for the participants that did not contain section 1 - demographics and all open answer questions. This version was created to be send out as reading support to our participants.

### **4.3 Procedure/Design**

We interviewed the participants either personally or via telephone/Skype. In total we conducted four interviews personally and ten interviews via telephone/skype. In advance to the interview we sent the participants' version of the interview as a reading support to the participants. Depending on the level of english proficiency we conducted the interview in German or English.

The design for each research question is outlined below.

#### **4.3.1 Research Question 1: How relevant is the research-practice gap to managers?**

To make inferences about whether the research-practice gap is relevant to our sample of managers, we used quantitative questions and an open question serving as control question.

In designing the questions, to assess whether the research-practice gap is relevant to our sample of managers, we faced a dilemma. The research-practice gap is not clearly defined in literature and there is not even an empirical proof for it. Therefore, we intended to avoid a priming effect, we did not want to imply that there is a research-practice gap without having a definition and empiric proof for it. There was a chance that the practitioners are not experiencing a research-practice gap and we would, therefore, prime them that there is one. Thus, the challenge was to come up with questions asking for the relevance of the research-practice gap without mentioning the research-practice gap. We came up with six questions, asking whether research is relevant to them and for the reasons (personal interesting, profession, to overcome job

hurdles), additionally, we asked whether research is not important because it misses practical implications and whether they believe research can help to overcome job hurdles (see Appendix 1 & 2).

For the above stated questions we asked for the level of agreement on a five-point Likert-type scale, ranging from 1- strongly disagree, 2- disagree, 3 - neutral, 4 - agree, 5- strongly agree. To interpret the items we used the descriptive statistics of central tendency and variability.

Our items qualify as Likert-type scale and not as Likert-scale. Likert-type scales stand by themselves using the response alternatives of a Likert-scale, while Likert-scales consist of several items that are combined in some way to measure an underlying construct. The mean and standard deviation are appropriate measures for Likert-scales to measure the central tendency and variability, however, it does not make sense to use these measures for Likert-type scales. Likert-type scales can be categorized as ordinal scales that imply whether one point on a scale is higher than the other but inferences about the distance of two points cannot be made (Boone & Boone, 2012). Therefore, the mean which is the average, i.e. the sum of all scores divided by the number of scores (Howitt & Cramer, 2008) and standard deviation are not appropriate measures. For Likert-type scales the median, mode and frequency are more appropriate measures for central tendency and variability (Boone & Boone, 2012). Thus, we used the median and mode as measures for central tendency and frequency as a measure of variability. The median is the midpoint of the score, when all scores are ordered according to their value. The mode is the value with the highest frequency (Howitt & Cramer, 2008). We indicated the frequency for each score in percentage.

Additionally, we included a control question. *“Would you like to apply more management research and theories in your job?”* stated as an open question. This question was intended to check whether participants were honest in indicating research is relevant to them. If someone agreed or strongly agreed with the item *“Management research and theories are relevant to me”* (see Appendix 1 & 2) but indicated that he (male form used as only male participants) would not like to use more research at the same time, the honesty in answering the above stated relevance item can be doubted. As a possible reason for negating the question could also be the already sufficient use of research in practice, we additionally asked why if someone negated the question. Accordingly, participants that indicated a *“4”* or *“5”* for the relevance item that at the same time negated the open question and gave a reason not related to already sufficient research use were therefore omitted. To avoid that participants link this open question to the relevance questions, we included it under Section 5 - Open Questions.

#### **4.3.2 Research Question 2: Where are the involved actors (research, teaching, practice) creating sufficient outcomes according to our sample of managers?**

To assess whether an outcome in Burke and Rau’s framework (2010) (see Figure 1) is sufficiently fulfilled, we used a quantitative approach and asked on Likert-type scales for the level of

agreement. We presented the ideal outcome of *Arrow A* - accessibility, understandability and relevance of research for practitioners, *Arrow B* - practitioners effectively contribute and co-produce research ideas and *Arrow C* - business schools produce informed, effective managers (see Figure 1), to our sample and asked on a Likert-type scale ranging from 1 - *strongly disagree*, 2 - *disagree*, 3 - *neutral*, 4 - *agree*, 5 - *strongly agree* whether they agree with the statement. To make inferences about the beliefs of our sample of managers with regards to whether the outcome is already sufficiently fulfilled we used the descriptive statistics central tendency and variability. As the items are Likert-type scales and ordinal, we will use the median and mode as measures for the central tendency and frequency in percentages as a measure of variability. Additionally, we asked for *Arrow A* - accessibility for the type of sources they use to assess management research and results. By asking this question we hoped to get further insight on where our sample of managers get their research from and therefore on which sources they base their answer on in the quantitative question. As multiple answers were possible per participant we provided counts and not percentages as a measure of frequency.

#### **4.3.3 Research Question 3: What other reasons do managers provide for the underrepresentation of research in practice?**

To investigate whether there are any other factors that are not covered in Burke and Rau's framework (2010) that hinder managers from using research, we used a qualitative approach. We asked the following open question:

*What hinders you on using more research?*

This question was used to identify whether the reasons that hinder the managers in our sample to use research align with Burke and Rau's framework (2010) (see Figure 1) or if there are more reasons not covered in the framework. As the model depicts the topics generally addressed in literature with regards to the research-practice gap, according to Burke and Rau (2010) and our own literature review, we can generalize that a topic not represented in the model has been underrepresented in literature so far. To answer that question we categorized the answers into the categories addressed by Burke and Rau's framework (2010), namely:

1. Accessibility of management research for practitioners (Arrow A)
2. Understandability of management research (Arrow A)
3. Relevance of research for practice (Arrow A)
4. Lack of input by practitioners for research ideas (Arrow B)
5. Education of managers (Arrow C)

Any answers that we were not able to categorize into one of the above stated categories were analysed and evaluated whether they fit in a new, not yet mentioned category.

#### **4.3.4 Research Question 4: How do managers utilize research, if they utilize research after all?**

Pelz (Pelz, 1978 cited in Beyer & Trice, 1982) described three types of utilization (see pp.18-20), namely instrumental, conceptual and symbolic use. To assess which type of utilization is used most frequently by our sample, we asked on a 5-point Likert-type scale for each type of utilization how often they engage in this kind of behavior. The scale ranged from 1 - never, 2 - rarely, 3 - sometimes, 4 - often, 5 - always. An example question will be provided below:

*If you incorporate management research or theories in your daily job, do you apply it directly, one to one?*

We categorized the scales as ordinal scales as well, as we do not know whether the distances between the points are of equal value. As the items stand by themselves and are not combined with other items, we deal with Likert-type scales. Therefore, we will use the median and mode as a measure for the central tendency as well as the frequency as a measure of variability.

As a control question we asked whether the managers are trying to avoid using research. The scale ranged from 1 - *Never*, 2 - *Rarely*, 3 - *Sometimes*, 4 - *Often* and 5 - *Always*. A value of 5 consequently indicates that a participant does not use research and must therefore be excluded from the sample concerning the questions of utilization.

We compared the medians, modes and variability to make an assumption about the frequency of use. For an empirical proof whether the types of utilization differ significantly one must compute a test of significance. The appropriate test of significance for ordinal data, using a same sample and three or more treatments design is the Friedman test (Universität Zürich). As we try to assess whether three types of utilization differ significantly in the same sample the Friedman test is appropriate for our purpose. However, due to our small sample size the Friedman test is meaningless. Therefore, we did not compute a test of significance.

#### **4.4 Disclaimer**

Before presenting und discussing the results we would like to add a disclaimer that our sample is highly biased for two reasons, its size and its selection procedure.

As outlined above our sample does not qualify as random sample. To make statistical inferences, i.e. draw conclusions from a sample to a population, the sample must be randomly selected (Moore, McCabe & Craig, 2009). Looking at the samples' demographics it becomes obvious that the sample was highly homogenous with regards to sex and nationality. Taken together, external validity, therefore, suffers and it is hard to make inferences from our sample to the whole population of managers in general.

Additionally, our sample size is quite small, further limiting the generalizability of our results. Statistical tests require a larger sample size and to make inquiries about significance (University of Southern California Libraries, 2017). A single answer can have quite an impact on the data set.

As this study only serves as a small-scale study to probe whether the approach is suitable to identify aspects of the debate, the limited inferences that can be drawn are not too worrying.

## **5. Results & Discussion of Results**

### **5.1 Research Question 1: How relevant is the research-practice gap to managers?**

#### **5.1.1 Analysis & Discussion**

After analysing the items we realized that we misconstrued the questions, as payoff of trying to avoid priming. The questions were supposed to measure the perceived relevance of the research-practice gap according to managers. The questions we posed, however, asked for a different construct. They assessed the relevance of management research in general according to the participants (e.g. *Management research and theories are relevant to me*). A display of an analysis and interpretation of the data is, therefore, meaningless, as it does not answer our research question. We therefore refrained from analysing the data.

We conclude that the questions we asked were not appropriate to answer the research question and we failed in answering this question. It is hard or even impossible to measure the attitude towards a construct that has not been clearly defined in the past, without empirical proof that it even exists. As long as there is no clear definition of the gap and no empiric proof for the gap, it will also be hard for future research to assess whether the research-practice gap is relevant to practitioners as well. Therefore, our advice to future researchers with regards to this topic is as a first step to find a clear definition of the gap with the help of different scholars and practitioners and as a second step conduct empirical research on whether the defined gap can be observed and only as a third step investigate whether the research-practice gap is relevant to managers. In our present research we vaulted the two preliminary steps.

### **5.2 Research Question 2: Where are the involved actors (research, teaching, practice) creating sufficient outcomes according to our sample of managers?**

In the following section, the data analysis of the items belonging to Research Question 2 are displayed. Starting with Arrow A (Accessibility, Understandability, Relevance), continuing with Arrow B and C. The sections ends with a discussion summarizing the implications of the results.

## 5.2.1 Analysis

### Arrow A: Accessibility

We used the following item to assess the samples' beliefs towards Arrow A: Accessibility.

*Do you think that management research is accessible for practitioners?*

Descriptives	
Mode	4
Median	4

Table 2

Percentages				
1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
0 %	14.29 %	21.43 %	50.00 %	14.29 %

Table 3

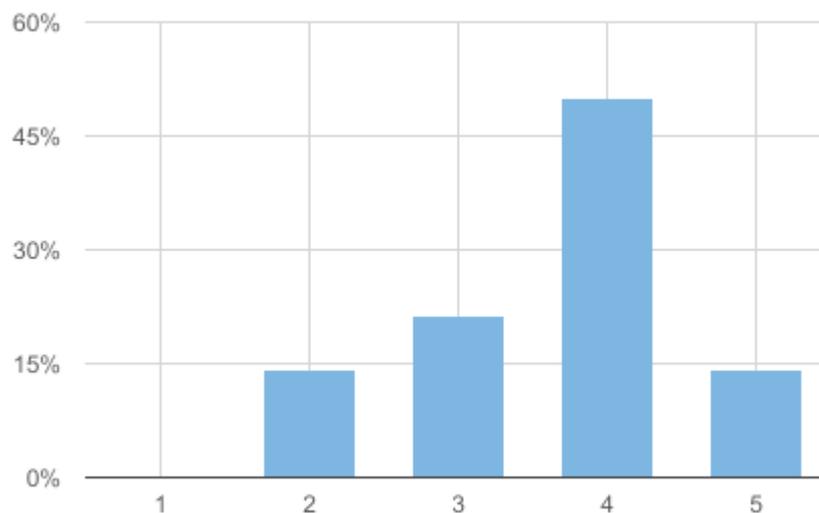


Chart 1

### Data Summary

The median of the sample lies at 4, indicating that half of the participants agree or strongly agree with the statement. The mode lies at 4 (see Table 2), indicating that the most frequent answer is 4 with 50 % (see Table 3). Together with 14.29 % of the sample that strongly agrees with the statement “management research is accessible to practitioners”, one can conclude that

most (64.29 %) participants of our sample agreed that management research is accessible to practitioners. This can be observed in the left-skewed distribution as well (see Chart 1). Only 14.29 % of the participants disagree that management research is accessible to practitioners and 21.43 % do not have a stance towards it (3 - neutral) (see Table 3). Taken together, this indicates a quite high agreement in our sample with the statement.

The results of the open question asking for sources are displayed below.

*What are your sources for management theory or research results?*

Sources	Count
Journals	6
Books	3
Seminars, trainings and coachings	3
Memories from studying	3
Internet	3
Interaction (contact) with universities	2
Social media	2
Exchange with colleagues/friends	2
Consultancy companies	1

Table 4

The answers were clustered in nine categories. The most frequent answer was *Journals* with six participants, followed by *Books*, *Seminars, Trainings and Coachings*, *Memories from studying* and *Internet* with three participants mentioning each source. *Interaction (contact) with universities*, *Social media*, and *Exchange with colleagues/friends* were mentioned by two participants each. Finally, assessing research through *Consultancy companies* was mentioned once.

### Arrow A: Understandability

We used the following item to assess the samples' beliefs towards Arrow A: Understandability.

*Do you think that management research is understandable for practitioners?*

Descriptives	
Mode	2 and 4
Median	3

Table 5

Percentages				
1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
0 %	35.71 %	28.57 %	35.71 %	0 %

Table 6

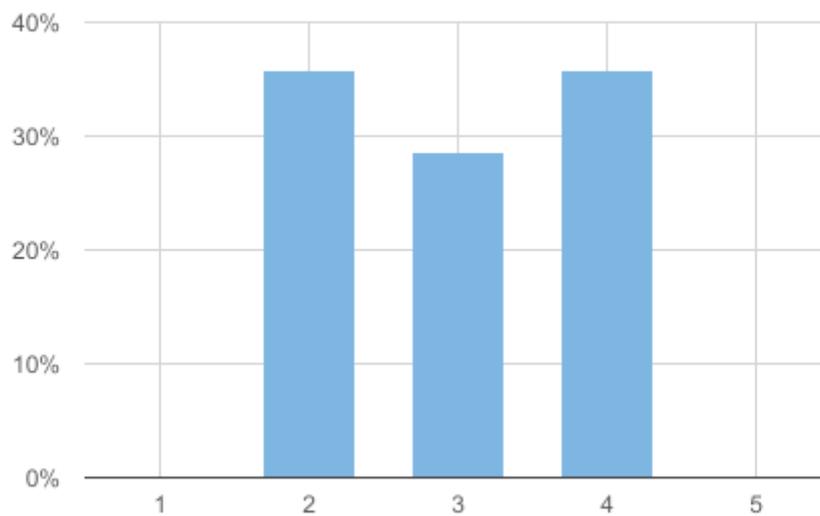


Chart 2

### Data Summary

The analysis has shown two modes for this item, they are tied at 2 and 4 with 35.71 % (see Table 4). Thus, 35.71 % are disagreeing and 35.71 % are agreeing with the statement that management research is understandable for practitioners. The remaining participants (28.71 %) have a neutral stance towards that statement (see Table 5). The just described characteristics are reflected in a median of 3 (see Table 4). Taking the median and the modes into account one can infer that there seems to be no clear agreement in our sample whether management research is understandable.

### Arrow A: Relevance

The question displayed below, aimed at gathering information on how relevant management research is to the job of our participants.

*Do you think management research is relevant for practitioners?*

As we already discussed in the section *Arrow A - Relevance* (pp. 13-16), the relevance of research to practice is a fiercely-debated and fuzzy concept. It is not clearly defined how relevance of management research should be assessed. After performing our analysis, it became evident that the question we designed, too, suffers from an unclear construct. Our intention was to cover the practical relevance of management research to practitioners, however, the way the question was stated rather asked whether our participants think that the conduct of management research is relevant in general, i.e. should management research be conducted.

We have failed to provide a question that asks for the construct in clear and concise way. Proof for the misinterpretation of the question, can be found, if one takes a closer look at the individual interviews. For example, one participant indicated a “4 - agree” that management research is relevant for practitioners, but at the same time answered the question “*What hinders you on using more research?*” with the following statement “*The gap between job challenges and content of research.*” We rated this answer as indicating research is not relevant for the job. Therefore, it becomes clear that this participant rated “relevance” in our question not as the research conducted is relevant but research is in general relevant for practitioners. There is one more incidence of a participant stating “4 - agree” with the statement that research is relevant to practitioners and stating in an open question that research is not specific enough for practice. Another participant indicated, “3 - neutral” and answered as well that research is not specific enough. Therefore, we will exclude this item from the analysis as the way it was stated gives room for interpretation and we do not know whether the other participants besides the two already mentioned above misinterpreted the question as well.

**Arrow B**

We used the following item to assess the samples’ beliefs towards Arrow B

*Do you think that, practitioners are involved in effectively contributing and co-producing research ideas?*

Descriptives	
Mode	4
Median	3.5

Table 7

Percentages				
1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
0 %	35.71 %	14.29 %	42.86 %	7.14 %

Table 8

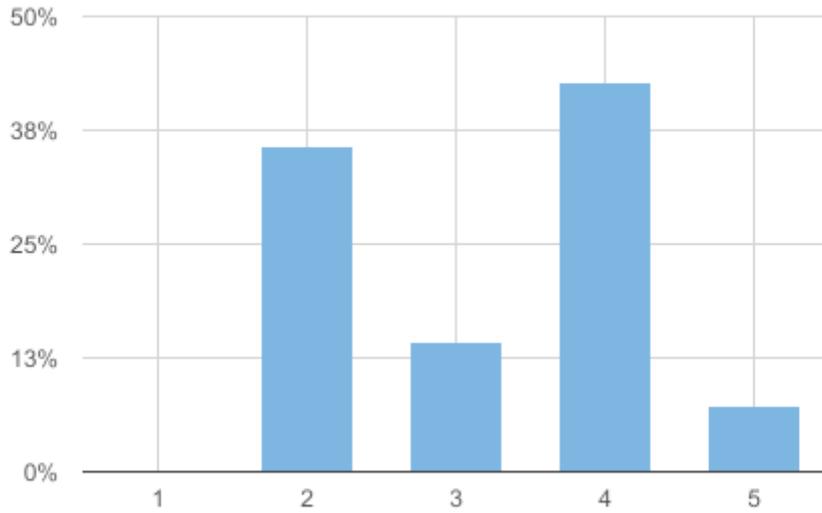


Chart 3

**Data summary**

The median for that item lies at 3.5 (see Table 6). The mode lies at 4 with 42.86 % agreeing with the statement that practitioners are involved in effectively contributing and co-producing research ideas (see Table 6). Most participants agree that practitioners are effectively involved in co-producing research ideas with 50 % either agreeing or strongly agreeing compared with 35.71 % disagreeing. Only 14.29 % had a neutral stance towards this statement.

**Arrow C**

We used the following item to assess the samples’ beliefs towards Arrow C.

*Do you think that, executive, MBA, and undergraduate management teaching produce informed, thoughtful, effective managers?*

Descriptives	
Mode	4
Median	3.5

Table 9

Percentages				
1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
7.14 %	7.14 %	35.71 %	42.86 %	7.14 %

Table 10

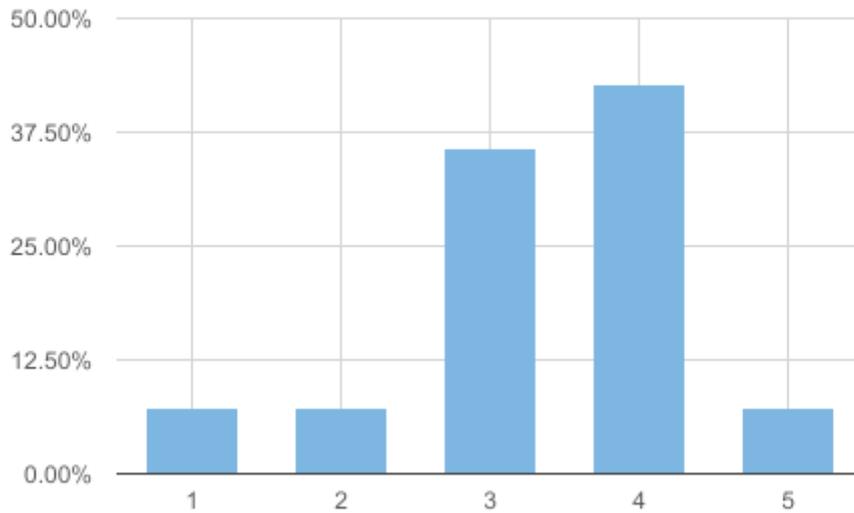


Chart 4

The mode for this statement lies at 4 with 42.86 %, the median lies at 3.5 (see Table 8). In general, the spread is quite high, as can be observed in Chart 4. Still 50 % of the participants agree that business schools produce informed, thoughtful managers, while only 14.28 % participants disagree with the statement. Remarkable in these descriptives is the relatively high amount of participants indicating a neutral stance towards it.

### 5.2.2 Discussion

The research question was “*Where are the involved actors (research, teaching, practice) creating sufficient outcomes according to our sample of managers?*” We analyzed the mean, mode and variability for each item assessing Arrow A (Accessibility & Understandability), B and C. As the description of the status-quo given by scholars were quite negative implying that the relationships are not yet sufficiently fulfilled, we expected that the managers’ beliefs aligned with the scholar’s beliefs.

Before looking at the results of Arrow A, we wish to recall that we decided to omit the item assessing the relevance of management research. We can assume that one part of the relationship between research and practice (Arrow A) appears to be sufficiently fulfilled according to the managers of our sample, namely accessibility. 64.29 % of the participants believe that research is accessible for practitioners. We are aware, however, that generalizations drawn from our sample must be treated with caution, due to the small sample size. Still, this can be used as a first indication that accessibility might not be as much of a negative issue as described by scholars.

Limitations we have to consider when interpreting the results is for once the lack of more recent findings related to the matter of accessibility. The inferences we draw are based on papers and discussions that date back almost a decade. We could assume that accessibility, especially online, was not as well established as it is today. Additionally, we used American literature but our sample consisted of German managers which might account for national differences in distribution of research.

Most importantly we have to question, whether our participants were referring to having access to the same kind of scientific knowledge, researchers refer to when discussing the matter. Looking back at our introductory paragraphs, it might have been the case that the managers were thinking of *popularist science*, found in more practice-oriented journals, whereas the accessibility problem described by scholars rather focuses on rigorous empirical work, published in cutting-edge, peer-reviewed journals. Even though we asked for their respective sources of research, a valuable addition to this question would have been to ask for the specific title in order to make an assessment of quality. Therefore, we suggest future research on a bigger scale should assess this question with including an analysis of the sources.

When it comes to the matter of understandability of research we have identified disagreement among the managers of our sample and hardly can make inferences. This as well can be attributed to our small sample. However, we can find further limitations to this question. Since the managers come from a variety of educational backgrounds, the research they familiarized and its language might differ substantially. Yet again, we have to question what kind of research they do or do not judge as understandable, *popularist* or *pedantic* research. Moreover, we have to be aware of potential response biases in self-report surveys. It might be the case that managers have agreed to understand research in order to present themselves in a favorable way. A response error often referred to as *social desirability bias* (Philipps & Clancy, 1972). For further research with a bigger sample we would suggest to choose a design that integrates the kind of research they refer to (e.g. popularist or pedantic science), when answering questions assessing the understandability.

The managers in our sample rather agreed to Arrow B, which describes the involvement of practitioners in co-producing research ideas, already being intact. However, it is just a tendency towards agreement, with 50% of the participants agreeing compared with 35.71 % disagreeing. Again caution is required when interpreting this result, since they might make inferences based on a few examples they have witnessed, such as master thesis co-operations and the like. Whereas we can assume that scholars have a quite different perspective since they probably have greater awareness of how much research is actually conducted with practical input. A useful addition for this question would be to further elaborate on what they or their organisations do to fulfill this relationship, which we set out for further research.

Arrow C, deals with how well business schools produce thoughtful, informed and effective ma-

nagers. Even though 50 % of the participants agree or strongly agree with the statement that business schools produce, thoughtful, informed and effective managers, 35.71 % have a neutral stance towards that topic, which we believe is quite high. This might be a matter of how much business schools graduates in management positions the company employs and in how far the participant is exposed to these within the organisation. We have to be aware when interpreting this result that the participants of our sample come from a variety of educational backgrounds. Only two participants can draw from first hand experience with business schools according to the Anglo-Saxon model, since they possess a master's degree from a UK university. The rest of the sample relies on their experience with business school graduates in their company in order to be able to make an assessment. The literature we have outlined in the section *Arrow C - Practice - Teaching* (pp. 17-19), however, deals with criticism on the concept of business schools, which is not as popular in Germany as it is in the Anglo-Saxon states. Since we have failed to clearly state that we referred to graduates from "original" business schools only, our participants probably were considering degree students and their own experience from other educational programs as well.

Thus, we suggest to be able to answer the question, whether business schools produce thoughtful, informed and effective managers from a managers' perspective, to specifically target managers that can make an informed statement towards this matter, i.e. managers that are exposed to business school's management and MBA graduates.

To sum up, in order to be able to make an informed answer about which relationship is already sufficiently fulfilled according to managers, a bigger sample is required and a research design that incorporates our suggestion.

### 5.3 Research Question 3: What other reasons do managers provide for the underrepresentation of research in practice?

In the following section, the data analysis for the items designed to answer research question 3 are displayed, followed by a discussion of the results.

*What hinders you on using more research?*

Categories shown in Burke and Rau's framework	
Arrow A: Accessibility of management research for practitioners	2
Arrow A: Understandability of management research for practitioners	0
Arrow A: Relevance of research for practice	5
Arrow B: Lack of input by practitioners for research ideas	0
Arrow C: Education of managers	0
Additional categories we identified	
Time	10
Costs	2
Motivation	1
Culture in company	1

Table 10

#### Data summary

There were only two categories shown in Burke and Rau's (2010) framework that were mentioned by our participants as reasons that hinder them on using research, these are namely accessibility and relevance of the research conducted. Research appears to be not specific enough or applicable to a problem. Two participants mentioned accessibility and five mentioned the lack of relevance of the research (see Table 10). We identified four additional factors that cannot be attributed to Burke and Rau's framework (2010). These are namely *Time*, *Costs*, *Motivation* and *Culture in the company*. *Time* is mentioned the most frequent, with ten managers indicating that time is a constraint when using research. The factor *Costs* got also two counts. Costs are closely related to accessibility, as the participants indicated that it is expensive to access management research, by for example journals or data platforms. Two other factors that were mentioned were a lack of motivation to apply research and a discouraging culture in the company, each statement mentioned by one participant. It appears that research is not always valued among all employees.

With *Time* being indicated by 10 out of 14 managers, as the prime reason for the underrepresentation of research in practice, we are confident to call this an issue that must be considered by scholars in the future. An inference that we draw based on our findings, is that research must be presented to practitioners on a silver platter in bite-sized chunks. As soon as it takes too

much time to engage with findings from management research, managers will move it down the priority list. We can present the following example in line with that inference: One participant indicated that he stays in touch with management research in a *push* way, i.e. articles are offered through social media or mailings, he almost never *pulls* research intentionally. Our findings aligns well with the rise of simplified popularist science. A part of the success story of practice-oriented journals, such as *Harvard Business Review*, might be attributed to being less time consuming. We are aware, however, that this finding also must be treated with caution, since the lack of time might come in handy as an excuse for not engaging with scientific management knowledge on a regular basis.

We suggest further research on bigger scale to investigate time as an obstacle that prevents managers from engaging with scientific evidence.

#### 5.4 Research Question 4: How do managers utilize research, if they utilize research after all?

In this section, the data analysis of the items intended to answer research question 4 are displayed followed by a discussion of the results.

##### 5.4.1 Analysis

##### Instrumental Use

To assess how frequently our sample of managers' apply instrumental use, we stated the following item.

*If you incorporate management research or theories in your daily job, do you apply it directly, one to one?*

Descriptives	
Mode	2
Median	2.5

Table 11

Percentages				
1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
14.29 %	35.71 %	28.57 %	14.29 %	7.14 %

Table 12

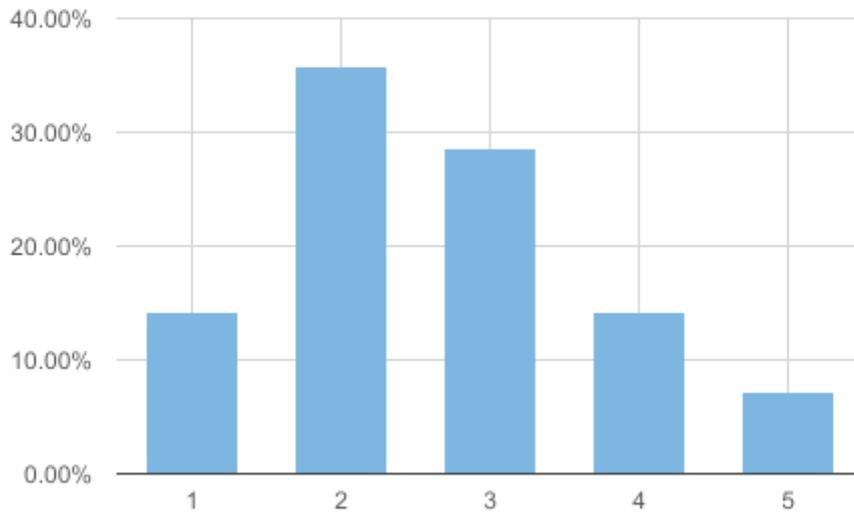


Chart 5

The mode lies at 2 with 35.71 % indicating they rarely apply management theory directly one to one (see Table 11). The median lies at 2.5 between rarely and sometimes (see Table 11). The distribution is slightly right-skewed (see Chart 5) indicating that our sample tends to apply instrumental utilization use not very often.

### Conceptual Use

To assess how frequently our sample of managers' apply instrumental use, we stated the following item.

*If you incorporate management research or theories in your daily job, do use it in a piecemeal fashion, selecting those you find relevant for your goals and circumstances and then redefining, altering, combining, and reinterpreting those?*

Descriptives	
Mode	3 and 4
Median	3

Table 13

Percentages				
1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
0 %	14.29 %	42.86 %	42.86 %	0 %

Table 14

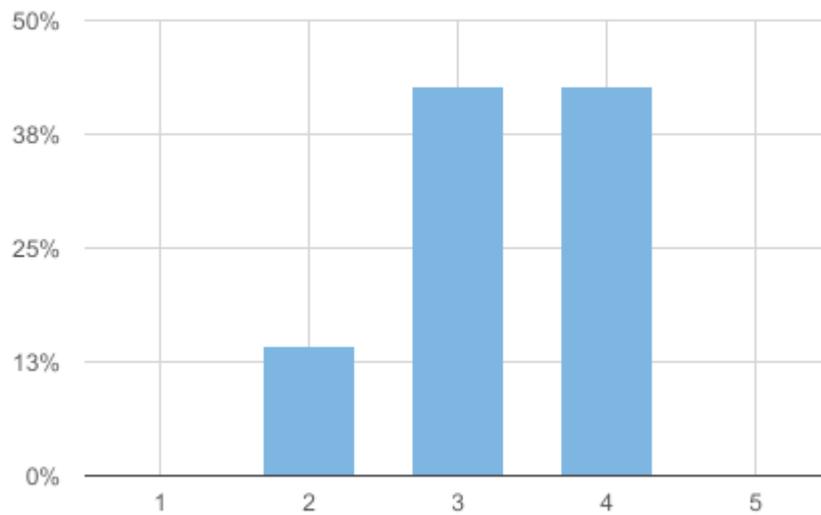


Chart 6

There are two modes for this item at 3 and 4 with 42.86 % (see Table 13), indicating that 85.72 % apply conceptual use “sometimes” to “often”. The median lies at 3, indicating that half of the participants indicated a value of three or above three (see Table 14). We can conclude that the participants of our sample are engaging in conceptual utilization quite often.

### Symbolic Use

To assess how frequently our sample of managers’ apply symbolic use, we stated the following item.

*If you incorporate management research or theories in your daily job, use it to legitimate and sustain your predetermined positions?*

Descriptives	
Mode	2
Median	2

Table 15

Percentages				
1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
14.29 %	42.86 %	28.57 %	14.29 %	0 %

Table 16

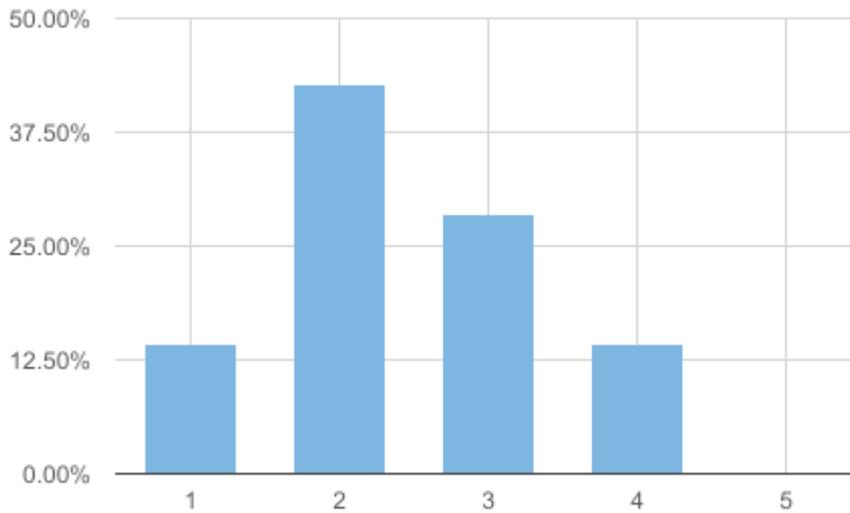


Chart 7

### Data summary

The median as well as the mode 2 (see Table 15), indicate that half of the participants engage in symbolic use rarely or never, with rarely being the most frequent answer (42.86 %) (see Table 16). We conclude that the managers in our sample do not engage in symbolic use very often.

### Control Question

*“Do you try to avoid using management theory or research results in your daily job?”*

Percentages				
1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
42.86 %	28.57 %	28.57 %	0 %	0 %

Table 17

Nobody indicated a value of 5 in the control question (see Table 17). Therefore, nobody must be excluded from the sample with regards to the utilization questions.

### 5.4.2 Discussion

Comparing the modes, medians and distributions it becomes clear that conceptual utilization is the most frequently used in our sample, followed by instrumental utilization and finally symbolic utilization.

Based on this outcome, we wonder whether a possible reason for the perceived research-practice

gap is that scholars look for the wrong traces. Conceptual use is hard to trace as plenty of theories are used, mixed and adapted to the problem at hand (Beyer, 2011). As Beyer (2011) puts it, “as long as we look for direct traces of our research in managerial actions, we will [...] be doomed to disappointment” (p. 386). This is of course a matter that has to be further investigated, as we base this assumption on a quite small sample size and do not know whether there are any statistical significant differences between the types of utilization. Additionally, as long as we do not know the scholars’ definition of the research-practice gap, we cannot make any inferences whether the perception of the gap is based on the type of utilization. To exemplify, does the absence of direct application, i.e. instrumental utilization, already fall under the definition of gap or does it refer to the complete neglect of management research in practice? Therefore, we suggest to conduct further research with a more elaborated design on research utilization as a first step and investigate the links of research utilization to the perceived research-practice gap as a second step.

We conclude this research question, as to how managers utilize research, with the statement that they use research in a *piecemeal fashion*.

## 6. Final Conclusion

We dared to approach this topic of enormity namely the exchange of knowledge between research on practice by addressing the mostly missing managers’ perspective. Our aim was to infuse the managers’ opinion on four topics, namely relevance, relationships, reasons and utilization. In order to do so we designed a framework based on available theory. To test our approach as a possible way forward in the debate, we conducted a small exploratory study with 14 German managers. Unfortunately, our analysis has revealed that our questionnaire suffered from unclear constructs and misinterpretation. Nonetheless, we found interesting results based on our sample for three out of four research questions. Accessibility does not seem to be as much of an issue as claimed by scholars. Time is declared as the main reason for the lack of research application in practice by our participants. The most frequent style of research utilization is conceptual use. The inferences we can draw from our investigation are, however, very limited. The greatest pitfall of our framework is rooted in the fact that we tried to analyse a problem that is all too big. It has become apparent throughout our paper that the research-practice gap debate covers a variety of discrepancies (e.g. *relevance vs. rigor* (pp. 13-16), *business school deficiency* (pp. 17-19)) between stakeholders of the academic community and practice. It has inflated to an umbrella term, which misses to clear specification of what is covered. We strongly urge the academic community to work on that issue with, for example, an extensive literature review or meta analysis.

In light of the present paper, we conclude that incorporating the managers’ perspective on a broader scale and ultimately reinforcing cooperation will be valuable for the research-practice debate, since raising awareness for the topic among practitioners might as well be functioning as a first step towards narrowing the gap.

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# Appendix

## Interview English

### Analysis of the relationship between Research and Practice from a Managers' View

*Business Schools and universities instruct future managers and teach theories and models that are supposed to help them in their daily activities and endeavours. Additionally those institutions are responsible for conducting respective studies that aim at providing knowledge and support to managers.*

*We are interested in how you experience the relationship between research and practice in your job. Your responses will be treated confidentially and anonymously. We will not disclose personal information and your participation is entirely voluntary.*

#### 1. Demographics

*First of all we would like to get to know a few facts about you and your professional position.*

1. How old are you?
2. What is your educational background?
3. When did you graduate?
4. What is your current position/title?
5. How long have you been working in your current position?
6. How many years have you been working as a manager so far?
7. How many employees are reporting to you?

#### 2. Relevance

*The academic field of management is conducting research and generating theories & models on all sorts of topics relevant to effectively and efficiently managing & leading an organisation. In the following section I would like to know, how relevant management research is to you.*

2.1 Management research and theories are relevant to me.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

2.2 Management research and theories are relevant to me because of my profession.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

2.3 Management research and theories are relevant to me because of personal interest.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

2.4 Management research and theories are relevant to me because it helps me to overcome job hurdles.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

2.5 Management research and theories are not important to me because they are missing practical implications.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

2.6 I feel like using management research and theories could be beneficial to my job.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

### 3. Utilization

*In the following I will ask about different types of research utilization.*

If you incorporate management research or theories in your daily job, do you...

3.1 apply it directly, one to one?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Never	Rarely	Sometimes	Often	Always

3.2 use it in a piecemeal fashion, selecting those you find relevant for your goals and circumstances and then redefining, altering, combining, and reinterpreting those?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Never	Rarely	Sometimes	Often	Always

3.3 use it to legitimate and sustain your predetermined positions?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Never	Rarely	Sometimes	Often	Always

3.4 try to avoid using management theory or research results in your daily job?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Never	Rarely	Sometimes	Often	Always

3.5 What are your sources for management theory or research results?

### 4. Relationships

*Three actors/institutions have been identified as being involved in the relationship of academics and practice, these are namely: Research, Teaching and Practice. We would like to hear your opinion about the various interconnections between those actors.*

Do you think that, ...

4.1 management research is accessible for practitioners?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

4.2 management research is understandable for practitioners?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

4.3 management research is relevant for practitioners?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

4.4 practitioners are involved in effectively contributing and co-producing research ideas?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

4.5 executive, MBA, and undergraduate management teaching produce informed, thoughtful, effective managers?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

**Open answer questions:**

Would you like to apply more management research and theories in your job?

If no: Why not

What hinders you on using more research?

# Interview German

## Analyse der Beziehung zwischen Forschung und Praxis aus der Perspektive eines Managers

Business Schools und Universitäten unterrichten zukünftige Manager und lehren Theorien und Modelle die ihnen in ihrem Arbeitsalltag helfen sollen. Des Weiteren sind diese Institutionen auch dafür verantwortlich Studien durchzuführen, die neues Wissen und eine Unterstützung für Manager darstellen sollen.

Wir sind daran interessiert zu erfahren, wie Sie die Beziehung zwischen Management Forschung und Praxis in Ihrem Beruf erleben.

Ihre Antworten werden vertraulich behandelt und anonymisiert. Wir werden keine persönlichen Informationen preisgeben und Ihre Teilnahme ist freiwillig.

### 1. Demographisch

Zu Beginn möchte ich Ihnen gerne einige Fragen zu Ihrer Person und Ihrer beruflichen Situation stellen.

1. Wie alt sind Sie?
2. Welchen Ausbildungshintergrund haben Sie?
3. Wann haben Sie Ihre Ausbildung beendet?
4. Welche Job Position haben Sie aktuell? Welche Titel trägt sie?
5. Wie lang arbeiten Sie bereits in Ihrer jetzigen Position?
6. Wie lange arbeiten Sie bereits in einer Manager Position?
7. Für wie viele Mitarbeiter sind Sie verantwortlich?

### 2. Relevanz

Die wissenschaftliche Gemeinschaft forscht und entwickelt Theorien und Modelle zu verschiedenen Themen, die relevant für das effiziente und effektive Managen und Führen einer Organisation sind.

Als nächstes möchte ich Ihnen gerne einige Fragen dazu stellen, wie relevant Management Forschung für Sie ist.

2.1. Management Forschung und Theorien sind relevant für mich.

1	2	3	4	5
Stimme gar nicht zu	Stimme eher nicht zu	Weder noch	Stimme eher zu	Stimme voll zu

2.2. Management Forschung und Theorien sind relevant für mich aufgrund meines Berufs.

1	2	3	4	5
Stimme gar nicht zu	Stimme eher nicht zu	Weder noch	Stimme eher zu	Stimme voll zu

2.3. Management Forschung und Theorien sind relevant für mich aufgrund meines persönlichen Interesses.

1	2	3	4	5
Stimme gar nicht zu	Stimme eher nicht zu	Weder noch	Stimme eher zu	Stimme voll zu

2.4. Management Forschung und Theorien sind relevant für mich, da es mir hilft Herausforderungen im Job zu bewältigen.

1	2	3	4	5
Stimme gar nicht zu	Stimme eher nicht zu	Weder noch	Stimme eher zu	Stimme voll zu

2.5. Management Forschung und Theorien sind **nicht** relevant für mich, da es ihnen an praktischer Anwendbarkeit mangelt.

1	2	3	4	5
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Stimme gar nicht zu	Stimme eher nicht zu	Weder noch	Stimme eher zu	Stimme voll zu
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2.6. Ich habe das Gefühl die Anwendung von Management Forschung und Theorien könnte hilfreich im Job sein.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Stimme gar nicht zu	Stimme eher nicht zu	Weder noch	Stimme eher zu	Stimme voll zu

### 3. Anwendung

*Als nächstes möchte ich Sie über verschiedene Arten der Forschungsanwendung befragen.*

Falls Sie Management Forschung oder Theorien im Alltag anwenden,...

3.1. wenden Sie es direkt an, 1 zu 1?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Nie	Selten	Gelegentlich	Oft	Immer

3.2. benutzen Sie es kleinteilig, in anderen Worten wählen Teile aus, die relevant für Ihre Ziele und Umstände sind und re-definieren, verändern, kombinieren und re-interpretieren jene?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Nie	Selten	Gelegentlich	Oft	Immer

3.3. benutzen Sie es, um Ihre bestehende Meinung zu legitimieren und zu untermauern?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Nie	Selten	Gelegentlich	Oft	Immer

3.4. oder versuchen Sie es gänzlich zu vermeiden diese anzuwenden?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Nie	Selten	Gelegentlich	Oft	Immer

### 4. Beziehungen

*Es wurden drei Akteure identifiziert, die ausschlaggebend sind für die Beziehung zwischen Wissenschaft und Praxis: Forschung, Lehre und Praxis.*

*Wir möchten gerne Ihre Meinung zu den verschiedenen Verbindungen dieser Akteure zueinander hören.*

Denken Sie, dass...

4.1. Management Forschung zugänglich ist für Anwender?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Stimme gar nicht zu	Stimme eher nicht zu	Weder noch	Stimme eher zu	Stimme voll zu

4.2. Management Forschung verständlich ist für Anwender?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Stimme gar nicht zu	Stimme eher nicht zu	Weder noch	Stimme eher zu	Stimme voll zu

4.3. Management Forschung relevant ist für Anwender?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Stimme gar nicht zu	Stimme eher nicht zu	Weder noch	Stimme eher zu	Stimme voll zu

4.4. Anwender involviert sind, sprich effektiv zu Forschungsideen beitragen und daran mitwirken?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
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Stimme gar nicht zu      Stimme eher nicht zu      Weder noch      Stimme eher zu      Stimme voll zu

4.5. Management Ausbildungsprogramme (wie MBA, M.Sc. in Management), informierte, gewissenhafte und effektive Manager hervorbringen?

**1**                                      **2**                                      **3**                                      **4**                                      **5**  
Stimme gar nicht zu      Stimme eher nicht zu      Weder noch      Stimme eher zu      Stimme voll zu

**Offene Fragen:**

Würden Sie gerne mehr Management Forschung und Theorien im Job anwenden?

Wenn nein: Warum nicht?

Was hält Sie davon ab mehr Forschung und Theorien anzuwenden?