Bridging the Relevance Ranking Chasm

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Bridging the Relevance Ranking Chasm: Mission Impossible?

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Bridging the Relevance Ranking Chasm: Mission impossible?

Abstract

Purpose (mandatory)

This paper debates the challenges related to balancing relevance and ranking in management research.

Design/methodology/approach (mandatory)

This is a commentary on and review of the challenges faced by 21st century management academics.

Findings (mandatory)

There is a chasm between managerial relevance and current managerial research, however, with academic buy-in there are ways in which the chasm can be crossed.

Research limitations/implications (if applicable)

The implications of this are wide reaching for management researchers. They are challenged to consider different methodologies, strategies and dissemination avenues for their research.

Practical implications (if applicable)

Researchers need to consider not only collaboration with practitioners as they pursue solutions to managerial problems but also to consider much more inter-disciplinary research that addresses the wicked problems of management in practice.

Social implications (if applicable)

Solving the challenge of managerial relevance of business research has the potential to allow the contribution of business academia to be fully appreciated by practitioners.

Originality/value (mandatory)

The value of this thought-piece is that it challenges business and management academics to question the status quo and fight to make their research relevant to and valued by the business world.

Introduction

The 4th Industrial Revolution is in progress (Bartissol, 2016; Monostori *et al.*, 2016) and the Google generation (Rowlands *et al.*, 2008) are just beginning to complete their tertiary education and move into the workforce. The Organization for Economic Co-operation and

Development (OECD) (2014) remind us that the modern workforce need both knowledge and skills to cope with specialization and to be able to engage in life-long learning and reskilling and also that there is a positive relationship between high qualifications (university-level) and employment. However, whilst the benefits of this education are significant (Viaene and Zilcha, 2013), the funding of this education remains a huge challenge for society and government with OECD countries spending, on average, 6.1% of their GDP on educational institutions (OECD, 2014). Regardless of this, public spending still remains the most important source of finance (Maria and Bleotu, 2014) and, in a third of the OECD countries, spending declined despite GDP rising (OECD, 2014). Such findings highlight the impact of political decisions about public spending and increase the focus on what can be considered to be value for money and cost effective management of such investments (Arlbjørn *et al.*, 2008; Lebeau *et al.*, 2012).

It is not the aim here to debate the rights and wrongs of the allocation of public spending, rather it is to discuss the impact of such decisions on the business and management educational community and more widely on managers, business and society as a whole. Two key factors appear to be closely related to these decisions and potential outcomes, one relates to quality of research and teaching¹ and the other to the relevance of this to the world outside academia. This paper explores the extensive and often passionate debates around both research quality and relevance. It uses the UK context as a backdrop to this whilst recognizing that similar pressures are becoming commonplace across the developed world. We suggest a number of actions that can be undertaken to help to narrow the chasm between academic research and management relevance, which has developed in business and management.

The remainder of the paper is structured as follows. We begin by reviewing the debates around Business School research rankings and then explore the related debate about relevance of management research. We then discuss the merits and disadvantages of using extant measures before considering how the relevance/research divide can be narrowed. Finally, we conclude by identifying actions that can be used to help bridge the gap between relevance and ranking.

Research and Business School Ranking

Debate around research and journal quality is not new, Zainuba and Rahul (2015) trace this back to the early 1960s. Ranking of research appears on a number of inter-related explicit and implicit levels and its relationship to assessment of individual academic performance is recognized as becoming increasingly important (Arlbjørn *et al.*, 2008). Focus on citation counts and journal metrics (Gruber, 2014), international and national rankings (e.g. QS World University Rankings and The Times Higher Education World University Rankings) and individual government assessment exercises (e.g. the UK RAE/REF and the Australian Excellence in Research) are becoming more prevalent and potentially more influential, with

¹ In May 2016 the UK Government began the legislative process to introduce a Teaching Excellence Framework (TEF) aimed at measuring the teaching quality in UK universities with a view to ensuring student value (Department for Business Innovation & Skills, 2016). It is beyond the scope of this paper to also include this in the current discussion but it is acknowledged that similar challenges to those discussed herein with respect to research quality and relevance may also exist in teaching metrics.

some warning that too much focus on such systems diverts university management from other important tasks (Macilwain, 2009). Some institutions are also applying this on an individual level to record research performance (Mingers and Yang, 2017). Underlying this, institutional decisions around recruitment, promotion, tenure and even redundancy, as well as editorial and reviewer decisions around acceptance of manuscripts, implicitly or explicitly assess and rank researchers' material (Zainuba and Rahal, 2015). Gioia and Corley (2002) contend that the emphasis on rankings has resulted in business schools focussing on their images alone and neglecting programme improvement, i.e. looking good rather than being good. The key challenges related to this include: enshrining accountability of educators to their publics, ensuring the optimum balance between appropriate benchmarking metrics and freedom of access to the most up-to-date and accurate knowledge.

Regardless, the debate around the efficacy of ranking systems continues to gather pace, with arguments suggesting that existing measures fail to reward scholarship, inter-disciplinarity and foster new knowledge and, in fact, skew scholarship and discourage inter-disciplinarity (Adler and Harzing, 2009; Tüselmann *et al.*, 2015). On the other hand, systems such as the RAE/REF in the UK have been deemed to improve research quality (Macilwain, 2009). The role of peer review (a fundamental principle of academic scholarship) in these ranking systems is complex. For example, even though the UK RAE/REF is a peer review system, it would not be surprising to find that perceived journal quality played a part in these assessments (Easton and Easton, 2003). Mingers and Yang (2017) highlight that such systems have flaws and the subjectivity and biases that impact upon these must be openly recognized. Perhaps most pertinent to academic researchers are "the ecological fallacy of making judgements about individuals on the basis of whole population characteristics" (Mingers and Yang, 2017, pg. 334) and the gender bias reported by HEFCE (cited in Thelwall and Delgado, 2015).

The differences in outcomes of the various ranking systems are widely discussed, examined and criticized (e.g. Mingers and Yang, 2017; Zainuba and Rahal, 2015). What is clear is that there is a great deal of variability in ranking according to the metrics and methodology used in their generation (McKinnon, 2013), with the possibility of a journal's position changing by over 100 places as a result of this (Mingers and Yang, 2017). Adler and Harzing (2009) demonstrate how, in international business, such rankings have an inherently arbitrary nature and consequently highlight the reservations that surround such rankings. Indeed they challenge the efficacy of such rankings suggesting that they may even undermine the academic scholarship they aim to classify. Tüselmann, *et al.*, (2015) suggest a meta-approach to ranking, but still the debate continues. Far from being the cry of a disgruntled professor, the reality of this conundrum is evident in the ongoing refinement and argument surrounding the UK Government's consultation on the second research excellence framework (see for example the Russell Group's² published response to the consultation, Russell Group, 2017).

With respect to this, one of Adler and Harzing's (2009) most compelling arguments relates to the lack of recognition given to books within these ranking systems, a fact noted by many others (e.g. Arlbjørn *et al.*, 2008; Piercy 2002). Supporting evidence for this can be seen in

² The Russell Group provides advocacy and communications on behalf of 24 leading UK Universities (see <http://russellgroup.ac.uk/about/>)

business-to-business marketing where the Google Scholar citations for the 1995 book edited by Håkansson and Snehota "Developing Relationships in Business Networks" stood at 4312 in March 2017, whilst the 1994 *Journal of Marketing* article in a similar area "Dyadic Business Relationships Within A Business Network Context" had a citation count of 2781.

Other skewing factors identified by Adler and Harzing (2009) relate to: the timeliness of the publishing process, where they note reluctance to include conference proceedings in ranking algorithms but counter that the newest research is nearly always initially presented in conference proceedings; including only journals that are published in English; the tendency to use journal ranking as a proxy for the quality of the articles published within the journal; and, issues of quantity versus quality.

Adler and Harzing (2009) also develop an interesting argument around weighting of first authors' contribution, suggesting that this lack of weighting results in unfair assessment of contribution. However, a counter assertion can be made to this: what about articles that are written by groups of authors, all of whom contribute equally? Indeed, the related assertion by Adler and Harzing (2009) that an author who appears last on many articles may actually be seen as prolific without ever proving research leadership could illustrate the opposite situation. Additionally, consider established academics who put many hours of support, ideas and experience into junior colleagues' work and are cognisant of the importance of first authorship on junior colleagues' careers and not driven by self-interest. Self-reporting of contribution may provide an answer here but how this can be factored into ranking systems remains unclear.

Notwithstanding, it can be argued that these ranking systems engender self-interest and a move away from collegiate principles. Macdonald and Kam (2007) report gamesmanship in the publishing process and note the practice, across a number of institutions, of providing monetary rewards for publishing in the quality journals. Gruber (2014) highlights the growing pressure for academics to sell their research publications, describing this as an "academic-sell-out" (pg. 166). Additionally, Adler and Harzing (2009) reflect upon the dysfunctionality that became evident in the run up to the 2008 UK RAE when "the scramble for rankings eclipsed scholarly purpose" (pg. 84). This unpleasant, darker side of academia was replicated in the lead up to the 2014 UK REF, where those with 4 x 4* articles were able to command high market supplements and the transfer market for academics (Adler and Harzing, 2009) involved a similar level of tension and hype to that surrounding the UK Football Premier League transfer deadline day. Recently, to counter these effects, changes to future UK assessment exercises have been proposed (Russell Group, 2017), such as non-portability of outputs.

Many others also caution against unintended consequences of ranking systems. Arlbjørn *et al.*, (2008) fear that academics will begin to play safe and work on less innovative ideas to ensure that they achieve the publication metrics demanded. They also question if highly cited peer-reviewed papers actually equate to better MBA education. Rafols *et al.*, (2012) provide quantitative evidence of journal rankings acting as a prohibiter to interdisciplinary research because the higher rated journals have a tendency to focus on narrow research areas. Another factor that can potentially be added to the list of problematic assessment factors is linked to bias relating to presumptions around methodological choices with many

of the highly ranked journals being dominated by positivistic approaches (Mingers and Yang, 2017). This is confirmed with respect to the highly ranked marketing journals by Svensson *et al.*, (2008). Finally, the publish or perish phenomenon has been accused of encouraging research misconduct (Qiu, 2010). This misconduct is further evidenced by a number of recent academic scandals and increasing retractions of papers (Davis, 2014).

A more recent complication relates to the accessibility of material published in academic journals, with Adler and Harzing (2009) positing that this could undermine the existing status quo. UK and European research funding bodies are implementing open access policies; for example, Research Councils UK mandate that all publicly-funded research should be freely available to both the public and other researchers (RCUK, accessed March 2017). On the one hand, this has important benefits with respect to accessibility of knowledge, but on the other, it has potential to further skew rankings. It is likely that open access material will benefit from higher citations than similar standard work that is not immediately made available (Shrivastava and Mahajan, 2016). Open access has to be paid for and universities or researchers themselves are having to pay for this privilege.

Perhaps it is not ranking itself that causes the problem but rather the metrics and weightings that are used to develop these systems and perceptions of whether or not these are equitable. After all, all of us want to produce quality work that is well respected. Who can deny that getting work published in a well-respected journal or being awarded a prestigious research grant does not provide them with satisfaction? Surely, we would all accept that some sort of ranking is necessary to ensure fair allocation of resources.

Research Relevance

If the debate about research ranking appears heated, it seems trivial in comparison with the wide-ranging and extensive debate around research relevance. The debate about relevance is also not new, it can be traced back to the 1980s (Baldrige *et al.*, 2004). Piercy (2002) provides a pertinent and passionate overview of the problem: “I suggest that where things started to go wrong was when we permitted research, teaching and practice in the discipline to be considered separate and unconnected domains.” pg. 353. Indeed, an extreme example of such disconnection relates to how, despite being published in a prestigious journal of the time, Humphrey Davy’s discovery of the anaesthetic properties of nitrous oxide remained unutilized for 47 years (Booker *et al.*, 2012). Practitioners often see little, if any, relevance of management research to them (e.g. Gioia and Corley, 2002; Brennan, 2008; Fendt *et al.*, 2008; Kuusela *et al.*, 2014; Banks *et al.*, 2016) despite efforts to the contrary. For example, Arlbjørn *et al.*, (2008) emphasize the importance of research-based education, especially within the Danish context, where the Government has enshrined this principle in law. Yet still managers do not see academic research relating to their everyday problems (Piercy, 2002; Banks *et al.*, 2016). Problematically, management practice and academic theory appear to evolve independently and there is goal incongruence between managers and academics (Banks *et al.*, 2016).

Piercy (2002) critiques much academic research for focussing on “doing clever sums” pg. 357, and focussing on things that are easy to research rather than providing insight into the complexity underpinning marketing. He also berates sophistry as being part of the problem.

Unfortunately, such a criticism still seems to hold true today, McMillan and Overall (2016) argue that management relevance is a wicked problem. Although their focus relates to the relevance of research to MBA curricula, it can be argued to be applicable more broadly. A key argument they present relates to the narrow and often intra-disciplinary nature of the research and curricula of business and management schools. This strikes to the very heart of management or business relevance, where problems are so rarely related to one narrow aspect of the business. Ferlie *et al.*, (2010) argue that there is diversity in business schools but acknowledge that some problems are evident. If MBA recruitment is seen as a bellwether for relevance, a growing problem is beginning to emerge, Pfeffer and Fong (2002) contemplate the end of business schools because of the growing realization that MBA degrees are not effective and also that the curriculum is not closely geared to the factors that lead to success in business and is function-led rather than practice-led. Such a demise may be seen to be beginning, with Bradshaw (2015) reporting that a number of second-tier US business schools have closed their full-time MBAs.

McMillan and Overall (2016) highlight fragmentation of research in specialised journals as a driver of what they see as a paradoxical situation where business schools are increasingly under scrutiny from business, the public and government. This is compounded by journal rankings which militate against interdisciplinary problem solving research and highlights why relevance remains a problem (Rafols *et al.*, 2012). Fragmentation of research, together with "list fetishism" (Mingers and Willmott, 2010), poses additional problems for researchers in some disciplines, a problem highlighted in the context of logistics research by McKinnon (2013). McKinnon (2013) describes the dilemma faced by researchers in logistics because most logistics journals are not highly ranked. Yet, logistics currently poses huge managerial challenges, related to both sustainability and disintermediation, and must be an area crying out for state-of-the art research. If logistics researchers (and other specialist researchers who face the same dilemma) succumb to the publish or perish pressure and try to target more mainstream management journals, they may well face other problems. Such as their research being missed by others or, through having to adopt a new research paradigm aligned to the journal, simply doing 'clever sums' rather than addressing relevant managerial areas. It is not, perhaps, too sensationalist to see this as a vicious circle resulting in the development of a chasm between research and managerial relevance.

Banks *et al.*, (2016) inductively examine the management-practice gap. They identify a knowledge transfer problem, related to dissemination issues, and see management theory being developed in isolation from its practitioners and practice. They reconceptualize the idea of fault lines between academics and practitioners from Rousseau (2007) into collaboration costs but also discuss collaboration problems such as ideas being 'lost in translation' as being a key issue. Fox and Groesser (2016) concur that two-way knowledge transfer is a barrier to achieving research relevance and argue that understanding the interfaces between communities of practice is important to overcoming this barrier.

Indeed the general perception that academic relevance is elusive has its opponents, see Booker *et al.*, (2012). For example, the view that new, more reflective modes of knowledge production are evolving, such as mode 2 knowledge production (Gibbons *et al.*, 1994) that is contextual (Mårtensson *et al.*, 2016), transdisciplinary and has practical value (Booker *et al.*, 2012). Booker *et al.*, (2012) also argue that it is a mistake to assume relevance only applies

when knowledge transfer is direct, they argue that indirect knowledge transfer is just as powerful.

Regardless of the pros and cons of rankings and striving for relevance they are facts of academic life. Academics need to understand what they entail and to engage in how they are measured. Hence, these are discussed below.

Measures of Research Quality and Relevance

Part of every researcher’s DNA should be a deep understanding and application of the criteria for quality research; all PhD programmes emphasize this and it is a basic expectation of publication, be it in a seminar presentation, a journal, a conference or a book. Certainly within business and management, the quantitative criteria for research quality (internal validity, external validity, reliability and objectivity [Hirschman, 1986]) are readily accepted and achieve consensus. Although there may be more paradigmatic debate around the criteria for judging the quality of qualitative work (see Healy and Perry, 2000) factors such as credibility, transferability, dependability & confirmability (Hirschman, 1986) are also well-recognized. It is surprising then that there is a lack of consensus about what constitutes a good set of evaluation of academic research (Mårtensson *et al.*, 2016). Perhaps because “the ambition to evaluate research has a long history that is full of tensions, ambiguities and misunderstandings.” (Mårtensson *et al.*, 2016, pg. 594). Alternatively, the real problem could be that defined by Buchholz (1995) of the difficulties associated with assessing the vast majority of research that lies in the middle and is neither outstanding nor poor.

Journal Rankings

Implicit in these ranking systems are discussions about the quality of journals. A plethora of journal rankings exist (e.g. Financial Times 50 Ranking, Harzing, Australian Business Deans Council, Association of Business Schools [ABS]) all of which use different metrics and numerical and alphabetical ranking designations, for some 1* is the best and for others 4* is the highest designation. These are somewhat of a minefield for researchers, especially those in the early stages of their careers, with no consensus as to which is the definitive list particularly at an international level. The reliance on such lists is argued to be damaging (Gruber, 2014) and can actually restrict international movement of academics, where academics who have been working to one list find potential recruiters deeming their work at a different level.

The assessment of quality and international reach of journals has been argued to be problematic for a number of reasons. There is circularity in the definition of a ‘quality’ journal (Macdonald and Kam, 2007); quality journals are published in by researchers from ‘quality’ establishments which are defined by the amount of publishing in the ‘quality’ journals. This effect may well be heightened by the concentration of journal editors in quality establishments (Petersen *et al.*, 2017). It is also recognized that high quality journals do occasionally publish ‘poor’ papers (Easton and Easton, 2003) and ‘low’ quality journals can also publish ground breaking ideas. Finch (2010) argues that journal impact factors are an inadequate proxy for evaluating individual pieces not least because of disparities between subject areas and quality of articles within a single journal. Arlbjørn *et al.*, (2008) also observe that in the management domain, many of the ‘international’ journals such as

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3 *Journal of Marketing* and *Management Science* are heavily routed in a Northern American
4 scientific approach and may thus have a US bias. This view is supported by Easton and
5 Easton (2003), using data from the UK 2001 RAE, who find that very few of top ranked US
6 journals were included in the submissions and suggest that non-US academics face both
7 implicit and explicit barriers to publication in these journals. This is supported by Svensson
8 *et al.*'s, (2008) research that found a high proportion (78%) of North American affiliated
9 authors in the leading marketing journals they reviewed.

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12 However, journal rankings do provide guidance especially to newer academics and early-
13 stage PhD researchers. Despite criticisms, impact factors are objective and their calculation
14 is transparent and they are widely recognized and understood. They are produced on a
15 yearly basis so are up-to-date. They have also provided somewhat of a level playing field by
16 normalizing for age of journal and number/size of publications (Nisonger, 2004).

20 21 *Citation Metrics*

22 Citation metrics are also seen as increasingly important (Finch 2010). But these metrics add
23 a layer of confusion, not all papers published in highly ranked journals are highly cited (Adler
24 and Harzing, 2009) indeed some are never cited. However, some papers in less highly
25 ranked journals are highly cited, for example, Turnbull *et al.*, (1996) in the *Journal of*
26 *Business & Industrial Marketing* (ranked as 2 level journal (next to the bottom of the ranking
27 in the ABS list) had 718 citations recorded in Google Scholar (August 2017)). To make such a
28 measure accurate, it would need to be unambiguous, allow fair comparison across
29 disciplines and countries and take account of time (Finch, 2010). It is widely acknowledged
30 that citations counts are not good indicators of whether or not the cited research has
31 promoted future research (Thelwall and Delgado, 2015).

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36 Citation does not reflect readership, using citation data from Scopus and altmetrics from
37 Mendeley, Shrivastava and Mahajan (2016) found that older highly cited papers were not
38 read as often as newer highly cited papers. Indeed lazy writers will simply take a citation
39 used by another author and use it as their own without indicating the secondary nature of
40 this citation (Gruber, 2014). Citations can also be inaccurate, therefore not necessarily
41 reflecting quality (Lawrence, 2007); they are ambiguous as they can reflect a positive or
42 negative context and it cannot easily be determined what aspect of the paper they are
43 citing, e.g. literature, methods of contribution, Buchholz, 1995). Additionally, they only
44 represent the views of one set of stakeholders – other academics (Aguinis *et al.*, 2014).
45 Time is needed for citations to accumulate (Gruber, 2014) and they can be gamed and
46 manipulated (self-citation can be problematic here), and they can artificially reward prolific
47 authors of mediocre papers, Finch (2010). Additionally, groups of researchers may cite each
48 other in order to inflate citation counts (Shrivastava and Mahajan, 2016).

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52 Despite arguments about the ineffectiveness of citation metrics, they do provide an
53 indication of impact on other researchers (Aguinis *et al.*, 2014) and are becoming
54 increasingly sophisticated. Mryglod *et al.*'s (2013) empirical investigation of some aspects of
55 citation measures (derived from examination of the UK RAE 2008) suggests, paradoxically,
56 that while citation-based metrics seem not to be strongly correlated to peer-review views of
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quality (as defined by the RAE) they are very good indicators of research group strength. Aguinis *et al.*, (2014) also propose a pluralistic conceptualization of impact which involves measuring perceptions of multiple stakeholders (e.g. other academics, executives and media) and a combination of the metrics from Web of Science, Google Scholar and using the i10-index (number of articles with at least 10 citations) and/or other plausible indicators of impact, e.g. invited keynote addresses. Of course, all of these have their own positives and negatives associated with them (if we had perfect measures there would be no debate around the matter).

Bibliometric measures have the advantage of being transparent and becoming more refined with respect to facilitating normalization for different fields; normalization is necessary because citation processes vary across disciplines (Mingers and Meyer, 2017). Often Web of Science and Scopus are used for calculating bibliometric measures but this is especially problematic for social sciences and humanities as they are less well covered in these databases. Google Scholar provides better coverage but has been criticized for having less reliable data. However, recent research suggests that normalization can be achieved in Google Scholar for journal articles, book chapters and conference papers, see Mingers and Meyer (2017). Unfortunately, at this point they were not successful in normalizing books. Although promising in terms of the satisfactory nature of their results, they conclude that this is still somewhat of a time consuming and intensive experience because of the extent of manual intervention the process warranted.

Rost *et al.*, (2017) argue that while bibliometric measures such as citation counts are useful, a more nuanced understanding of them is needed, in that frequency of citation needs to be complemented by an understanding of where the article has been cited. This suggests that the environment of citation needs consideration and is particularly important for inter-disciplinary research because a core set of journals that form the environment cannot be easily identified. Rost *et al.*, (2017) contend that this one-dimensional approach is limiting and propose instead a methodology that incorporates social network analysis and thereby facilitates identification of the roles that journals play. Such a methodology and measures have potential to increase our understanding about the nuances of citation, e.g. which research has been influential in practitioner journals or which research has the most influential inter-disciplinary impact, for example.

There is a broad set of academic literature that focusses on higher-level design of research evaluation frameworks, e.g. frameworks such as REF at national or even international levels (e.g. Guthrie *et al.*, 2013), group (e.g. Mryglod *et al.*, 2013) or for trans- or multi-disciplinary projects level (Belcher *et al.*, 2016; Wolf *et al.*, 2013) and many different models have been suggested (Mårtensson *et al.*, 2016). However, there remains a lack of consensus to their efficacy. Additionally, some, such as the UK REF/RAE, are continually refined and subtly changed to prevent gaming from actors that learn how to maximize their position with respect to the rules (Macilwain, 2009). Undoubtedly, there is complexity to such evaluations, as early as 1975, Mitroff and Kilmann argued that there was a need to understand the underlying psychological processes of different scientists who may be undertaking such evaluations. They suggest four main categories based upon Jungian personality theory (*the hard experimentalist, the abstract theorizer, the intuitive synthesizer*

and *the humanistic scientist*) that drive the evaluation processes and that these may result in different evaluation outcomes. Table 1 provides an overview of some of these contributions and highlights the lack of consensus as to what should be included.

Authors	Research quality/evaluation dimensions	Context
Belcher <i>et al.</i> , 2016	<ul style="list-style-type: none"> • Relevance to the problem context • Credibility including critical reflection • Legitimacy • Effectiveness 	Systematic review of transdisciplinary research
Mårtensson <i>et al.</i> , 2016	<ul style="list-style-type: none"> • Credible • Contributory • Communicable • Conforming 	Development of a multidisciplinary framework
Guthrie <i>et al.</i> , 2013	<ul style="list-style-type: none"> • Advocacy • Accountability • Analysis • Allocation 	Development of an evaluation framework for discussion by the Association of American Medical Colleges
Wolf <i>et al.</i> , 2013	<ul style="list-style-type: none"> • Relevance for practice and society • Engagement with practice/society • Publications (scientific and general) • Facts about application and use of the research 	Development of an evaluation framework in the context of interdisciplinary projects relating to agriculture

Evaluating research performance quantitatively is complex and resource intensive and requires a variety of assumptions because of lack of availability of some data, see the work of Bonaccorsi and Secondi (2017). Yet they find that university factors (size and degree of specialization) and regional factors (infrastructure) impact on the performance of individual departments, illustrating the care that must be taken when trying to understand the factors that underpin what is perceived to be good or bad research performance. Mryglod *et al.*, (2013) also suggest that careful use of metrics can be useful in such evaluations.

What is notable about the above discussion is that the majority of measures have been developed in the context of the natural sciences. As such, for social sciences, the question of

whether they can or, even should, meet the same criteria as for natural sciences is central (Mårtensson *et al.*, 2016). This is a discussion that needs to be undertaken at all levels of management research with a careful view about the context and norms in the various disciplines being considered.

However, regardless of which metrics are taken forward, the most important issue is identified by Arlbjørn *et al.*, (2008): that it is balanced use of measures that is critical. Achieving this balance is not as simple as it first sounds, Baldrige *et al.*, (2004) suggest that if the evaluation criteria are revealed *a priori* they can potentially bias the resulting evaluation and they contend that such factors may account for many of the conflicting findings relating to the relationship between practical relevance and academic quality.

Crossing the research-relevance chasm

In order to cross the research-relevance chasm it is perhaps necessary for management academics to reflect on their role in reaching this goal. We need to be proactive, not be conditioned into believing that the only real relevance comes from natural sciences which have the potential to provide cures for devastating diseases or new material which can transform the way buildings are constructed. What use is a silver bullet without the ability to manage the extraction of the raw materials for its manufacture, to deliver this to market and communicate its value? All these are tasks that are organizational in nature and which benefit from insight into how they can be more effective, efficient and innovative and the theoretical underpinning that drives this. Echoing Vermeulen’s (2005) thoughts, we should be proud that we can contribute to society through facilitating business processes and also being able to contribute to holding businesses to account through researching both positive and negative aspects of their processes and organization.

In addition, numerous suggestions have been made as to how the relevance-research gap can be narrowed. Many are practical in nature, e.g. including adopting pragmatism as a guiding philosophy, Fendt *et al.*, (2008). Piercy (2002) also urges us to take more notice of what managers believe to be the issues that need researching and to adopt publishing strategies that meet both goals. While McMillan and Overall (2016) also highlight the importance of partnering with business, Arlbjørn *et al.*, (2008) note the extensive amount of time collaboration with industry involves and note this as a high cost of collaboration and by inference relevance and Ferlie *et al.*, (2010) caution that too much closeness will not necessarily be beneficial. Vermeulen (2005) contends that systematic change is needed to facilitate the synthesis of both relevance and rigour.

In the UK for the 2014 REF, the Government added ‘research impact’ to the assessment criteria in order “to assess the impact of research outside of academia. Impact was defined as ‘an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia’” (HEFCE, unknown date). This introduction had a noticeable effect on UK academics’ practices (Gruber 2014) but may well be a juxtaposing force to citation metrics, as applied research is believed by some not to be cited as much as purely theoretical work (Thelwall and Delgado, 2015) and may be used rather than cited (Shrivastava and Mahajan, 2016). Indeed, Piercy (2002) also cautions that impact comes from publishing in journals or, more specifically, magazines that are read by

managers, something that militates against the pressure to publish in high quality journals. Indeed, Vermeulen (2005) argues that in order to facilitate a balance between both rigour and relevance changes in the academic incentive system (tenure, promotion etc.) is a necessity.

Banks *et al.*, (2016) call for 40 40 20³ academic contracts to be extended to include practical relevance or something similar, i.e. to become 30 30 20 20. This suggestion is very appealing (although the cost of doing this [and its assessment] would need careful consideration). In the promotion criteria used in institutions I am familiar with, there are four categories: teaching, research, administration and impact. Unfortunately, impact is not separately factored into the workload models, so then impact comes at a cost to research. A no win situation in many ways. Additionally, assessment systems do not easily facilitate the collection of impact perceptions from multiple stakeholders, a necessity identified by Aguinis *et al.*, (2014) but complicated by factors such as recognizing there is often a lag in the realization of impact and avoiding one-off outcome based measures when a longitudinal approach would be more appropriate (Lyall *et al.*, 2004).

In order to overcome the problems discussed by Pfeffer and Fong (2002), Ferlie *et al.*, (2010) argue that there is scope for reformation of business schools and see merit in development of 'public interest' schools, which focus on profession building from a social sciences knowledge base and which balance linkages with the corporate world. McMillan and Overall (2016) stress the importance of real-world interactions and call for MBA students to be taught systematic thinking. Ferlie *et al.*, (2010) also note a potential distinction between business schools and management schools, a potential distinction that could be important here, is to consider to what extent critical thinking skills (Enis, 2015) can be engendered. Regardless, it is important to ensure that courses leave time for reflection and consideration and encourage individual exploration and learning. At the same time, focus needs to move away from narrow functional silos to broad inter-disciplinary thinking and allow the opportunity for students to delve into grand challenges and solve wicked problems.

In order to address such challenges academics need to consider different approaches to their research, inter-/trans- disciplinary investigation of real-world and wicked problems has the potential to be one solution. For example, Belcher *et al.*, (2016) note the opportunities for transdisciplinary approaches to investigate problem-oriented research, describing the success of Royal Roads University in Canada in doing this. However, they also note that for such approaches to be fruitful, appropriate measures for ascertaining the quality of such research and appreciating and rewarding its outcomes are needed.

Pressure needs to be exerted on journal publishers and editors to embrace these developments and to start thinking outside the box as to how such research can be nurtured and celebrated. The insights this can bring for managers could encourage them to engage more with academic output, although academics also need to be encouraged to engage more with other forms of digital management engagement such as LinkedIn and Internet blogs. This will also bring challenges for the wider editorial team and its gatekeeping role (Petersen *et al.*, 2017) which will need to be overcome.

³ Typical UK academic contracts stipulate 40% teaching, 40% research and 20% administration.

Booker *et al.*, (2012) highlight the absolute importance of relevant dissemination of academic research. Some quick wins may be possible. Recently, I realized that the *Journal of Services Marketing* no longer includes a manager-focussed summary of the contents as it did in the late 1990s and early 2000s. Perhaps managers were simply not using these, maybe social media and other technology-enabled means of dissemination should be adopted, but for me the barrier to this is the time it takes to do this. Potentially, we could lobby journal editors to consider the managerial relevance of the work they publish and to use their resources to promote this more widely, it should be a win-win situation.

When discussing relevance of research and its assessment, the lack of prestige attributed to books was also discussed. Pfeffer and Fong (2002) add an extra dimension to this discussion by pointing out the lack of best-selling business books written by academics with no more than 2 out of the top 15 books in any year coming from academia. This perhaps presents a longer-term challenge, but by developing meaningful collaborations with industry, the potential exists for meaningful collaboration over books. These must, though, become an acceptable output in terms of assessment of academic achievement.

Closely related to this is a discussion of what managers actually do, “are managers from Mars and academicians from Venus?” (Baldrige *et al.*, 2004). Their empirical research demonstrates that both managers and academics value research that is interesting and encourages them to challenge existing beliefs and practices and is clearly supported by appropriate evidence. The points we make above about the role of measures and quality evaluations can be interjected here, in that the judgement about appropriate evidence may be made very differently by managers and academics. For example, would a manager really want to read through 5 or 6 pages of detailed arguments about the correlation factors amongst variables? Wilkerson (1999) considers if one solution is to teach managers how to evaluate research articles. However, the variety and ever-increasing methods and complexity of data analysis would make this an enormous task and potentially take focus away from the task in hand: finding effective knowledge transfer mechanisms. This strengthens the argument for new mechanisms for developing dissemination practices and embracing the fact that we should have two audiences for our work, not simply other academics and PhD students.

However, a word of caution is needed, perceptions about interestingness are subjective. Pursuit of a research interest is very personal, but how often do we as academics question whether managers would find the research interesting too? While Baldrige *et al.*, (2004) confirm managers and academics do have an overlap in their interests, we also need to be cognisant of the areas that do not overlap. How much research do we see that is actually anchored in a real world problem brought to our attention by managers/organizations? Are we as familiar with the theories that managers actually use as we should be (Baldrige *et al.*, 2004; Wilkerson, 1999)? As academics, it is perhaps tempting to shy away from the interdisciplinary and wicked problems that managers themselves raise (see, for example, one of the key areas identified by leading business-to-business practitioners: of demonstrating marketing's contribution to business performance, Wiersma [2013]) that is exceptionally challenging to determine.

Knowledge transfer is central to ensuring research relevance. Booker *et al.*, (2012) urge consideration of paths of relevance, such as direct knowledge transfer when practitioners actually read academic journals and indirect knowledge transfer which occurs through pathways such as executive education. It is also worth considering the knowledge that is transferred during research-led undergraduate teaching, perhaps simply indicating there can be a time lag between discovery and utilization. However, we need to remember that writing for academic journals is very stylized and difficult to read (Wilkerson, 1999) with very few managers even trying to read academic journals (Vicari, 2013). Indeed this point was brought home to me when a practitioner with whom we have recently collaborated read the journal article that was the result of the project and commented that it took him “a couple of times to get his mind back into academic-speak, then he found it interesting”.

Following from this, it is useful to reflect on the role of evidence-based management practices (Rousseau, 2012) and professional bodies such as the Chartered Management Institute that actively encourage managers to participate in Continuing Professional Development (CPD) and search for information on the latest developments in management research. Booker *et al.*'s (2012) empirical research confirms that managers do find academic research relevant, the key is for academics to understand the variety of knowledge transfer mechanisms, especially indirect routes such as workshops, webinars and training, that facilitate awareness of new ideas. These indirect processes, however, will prove elusive to capture and measure.

Wilkerson (1999) contends that the success and/or failure of academic to management knowledge transfer is partly related to managerial perceptions of academics as having limited real experience of business and management, i.e., the existence of a managerial work experience deficit. The role management consultants have taken on in transferring academic research into practical managerial application also needs consideration when trying to unravel this complex issue.

Conclusion

Arlbjørn *et al.*, (2008) highlight the tension between the political desire to connect business schools with industry whilst also demanding publication in high quality journals as a prerequisite for awarding research funding that is also apparent in the Danish system. They see current measurement tendencies actually being counter-productive, skewing effort into publication rather than broader communications with industry. However, they also illustrate what is the core to managerial relevance: the need to aspire to give the ability to managers to think about how they understand their business and then add to this understanding. It is clear that the importance of inter- and multi-disciplinary problem-solving is also key, as well as changing how people think about things (Pfeffer and Fong, 2002). We need to recognize that while we may see many flaws and inequalities in current ranking systems, it is our duty to work together to improve these impediments while recognizing the holy grail is not research for research's sake or even being ranked as number 1 but to make a difference to how managers can cope with the challenges they face through undertaking relevant research. This does not mean that we should not research interesting things nor undertake leading edge and innovative research, it must still be rigorously done, but its relevance should be our driving force.

As a community we need to recognize that whilst suggestions about how to close the research-relevance gap may appear simple there are many hidden factors that facilitate the 'status quo' rather than engendering change. It will require significant changes in practice to ensure that the chasm is breached, potentially the exogenous shock predicted by Adler and Harzig (2009). We must all begin to explore and consider the wider relevance of what we do: the curriculum we teach, the research we undertake.+ Who do we involve and how widely can we disseminate this? But we must not forget that this research needs to be undertaken with scientific rigour (Vermeulen, 2005). We need to reflect upon:

1. what we teach and how easily this can be applied in practice
2. how employers perceive our graduates, i.e. do they have the skills needed
3. applied research with companies

Nonetheless, there is potential to close the chasm between management research and its perceived relevance in the larger world and through this to satisfy governmental desire to achieve value for money from their large investment in education. However, there is not a simple, easy or quick solution to this. A great deal of effort and interaction will be needed to achieve this. The discussion above suggests a number of actions that can contribute to this:

- It is necessary to reflect upon and try to engender change in our implicit incentive systems that can militate against research that is both rigorous and relevant.
- We need to embrace the duality of our audiences and consider how to position work for both.
- We need to begin to tackle wicked, inter-disciplinary and relevant problems while calling on journal editors to recognize their significance and relevance to a wider audience and support publishing of such work.
- We need to ensure our research is cognisant of theory in use by managers and the problems they perceive. This involves close ties with managers whether through subject advisory boards, alumni, executive education, practitioner organizations or consultants etc.
- Stronger awareness and exploitation of indirect routes of knowledge transfer is needed.
- Work needs to be undertaken to ensure that academics do have credibility with respect to their ability to understand real world business problems; this could be through more interaction across the academic business divide and/or recognition of the value of work experience. However, it is imperative as Wilkerson (1999) suggests, to broaden the delivery of academic research across the practitioner arena.
- Work on development of relevant and widely accepted measures of impact and relevance needs to continue.

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