

# An Administrative Perspective on Intellectual Contributions for AACSB Schools: A Note on the Importance and Measurement of Research Impact

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**Abstract:** The importance of business faculty research impact is increasing given the proposed AACSB standards regarding maintenance of faculty qualifications. This paper provides a discussion on the usefulness of intellectual contributions and offers suggestions about how administrators and faculty can measure intellectual contribution impact. The methods of demonstrating impact discussed in this paper can be applied to basic research, teaching and pedagogical research, and contributions to practice.

**Key words:** research impact; measurement of research; research metrics **JEL codes:** M1, M5, J4, J5, J8

## 1. Introduction and Literature Review

Publishing academic research is a necessity for university and college faculty employed in twenty-first century business programs in higher education. Published research is also the only job component of a faculty member that has value internally or within the school, externally for peer reviews, and also individually for a faculty member's career.

The recent AACSB report, "The Impact of Research", details the importance of business research and scholarly activity in terms of impacting the current business environment. The production of intellectual contributions also matters because faculty members engaging in this type of activity maintain their academic currency. The process of research involves learning about new theories and practices in business and pedagogy and also applying these theories to real world problems. This process therefore engages the researcher to expand their own knowledge while working to develop a new line of research or on a specific intellectual contribution.

Internally, publication numbers and quality are often used almost exclusively to determine annual merit pay increases, assign release time, and award professorships and endowed chairs. At some universities research is used to determine a faculty member's annual bonus or even whether a faculty member will be eligible for summer teaching opportunities. Several studies report that promotion and tenure decisions are often determined based on research productivity (Swanson, 2004; Campbell & Morgan, 1987; Milne & Vent, 1987). In fact, one recent

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survey by Whitman, Hendrickson, and Townsend (1999) reported that most information systems faculty members perceive research to be more important than teaching for their individual promotion and tenure decisions. In the future, as post-tenure review becomes more prevalent, evidence of research impact may be required as insurance against later sanctions. Thus, research productivity and the ability to demonstrate the impact of one's intellectual contributions is clearly important across one's academic career.

Research is also very beneficial externally since the primary accrediting body for business schools, AACSB International—The Association to Advance Collegiate Schools of Business, deems research necessary to maintain academic currency in one's particular field of expertise. According to the newest proposed AACSB standards a faculty member must demonstrate some type of intellectual currency within the most recent five-year period to maintain classification as a scholarly academic, practice academic, scholarly practitioner, or instructional practitioner. These proposed standards also state that "The school applies relevant metrics to assess the extent to which expected impacts from intellectual contributions have been achieved and are aligned with mission".<sup>1</sup> Faculty members not engaging in research activities may lose their individual classification regardless of degree-if both activity and impact are not demonstrated. However, some contend measuring impact reduces the value of the assessment process by going outside the academic arena (Duryen, Hochman & Parfitt, 2007). Intellectual contributions, unlike teaching, are also portable, meaning that your research record will transfer from one university to another. Teaching evaluations are not as portable given the fact that teaching standards and grading practices vary from one institution to another. Peer reviewed published research, and other intellectual contributions that demonstrate impact, differ from teaching in this regard. Published research is something tangible that can be evaluated by your current employer and prospective employers. In addition, research does expand an individual's knowledge base and enrich their classroom performance. For example, prior research has demonstrated that faculty research positively impacts student perceptions of faculty (Becker, Lindsay, & Grizzle, 2003). For these reasons, teaching evaluations are often discounted and greater emphasis placed on an individual's research record.

Publications also appear to influence faculty salaries to some degree. Obvious impacts occur when faculty members are awarded endowed chairs, professorships, or lectureships based on research. These types of appointments typically carry additional compensation and/or release time. Moore, Newman, and Turnbull (1998), in a study of academic economists, find that the total number of publications positively impacts salaries. Interestingly, this study also finds that quantity of publications, instead of quality of publications, is related to higher salaries. In most academic environments, salary compression and inversion does exist, often regardless of publication productivity. Therefore, to be realistic, the primary salary boost from publications accrues to those mobile faculty that garner higher starting salaries due to individual publication records.

And yet, in spite of the obvious benefits that flow from an active research agenda, many faculty fail to devote adequate attention to this component of their job duties. Englebrecht, Iyer, and Patterson (1994), in a study of accounting faculty productivity, find that in 1989 almost twenty-five percent of full professors of accounting at accredited schools did not have a single publication. For non-accredited schools the percentage without publications approached forty percent. However, only five percent of full professors at accredited doctoral institutions did not engage in publishing at that time. Their study indicates that publication productivity appears to

<sup>&</sup>lt;sup>1</sup> Page 18 of the January 18, 2013 version of the proposed AACSB International "Eligibility Procedures and Accreditation Standards for Business Accreditation".

increase during time periods close to promotion decisions. While this information is somewhat dated, anecdotal evidence suggests that research continues to challenge many faculty members in all business disciplines. However, the lower quantity of research activity appears to have higher incidence at non-accredited schools. And, a study by Erkut (2002) found that Canadian business school research output was actually declining.

Given the fact that intellectual contributions are important, why do some faculty members fail to engage in this activity and/or fail to monitor the impact of their research? Matejka (1990) addresses the issue of publications and maintains that prospective authors develop rationalizations that prevent them from engaging in research that ultimately leads to publication. According to Matejka (1990), the primary rationalizations are; (1) they are too busy to engage in research; (2) editors will not understand their ideas and therefore contribution to the field of expertise; (3) that changing an idea as a result of an editor or reviewer's suggestion will destroy the idea. However, Matejka maintains the primary reason is fear of rejection.

Fears can often be overcome through gaining knowledge about the subject of the fear. For this reason, a clear understanding of ways that a faculty member can produce intellectual contributions that have a significant impact could generate a new enthusiasm for the creation of research that matters. The purpose of this paper, therefore, is to provide some additional suggestions about how administrators can broaden the discussion and measurement of impact. The new AACSB impact focus should place even greater importance on teaching and pedagogical research and research leading to contributions to practice. However, basic research will likely be easier to measure impact given it is typically published in journals with low acceptance rates and greater name recognition. Regardless of research type publication is one very easy way to demonstrate impact. Even so this metric is not without problems as pointed out by Tressler and Anderson (2012). Their paper discusses how citation impact is often cited as one way to demonstrate relevance but yet the metric suffers from substantial citation lag. They find that a paper might not begin to be cited until it has been published for more than five years thus making it an unreliable short-term impact metric.

In addition not all publications are created equal and every school's desired portfolio of research contributions differs depending on mission. One study by Taylor and Stanton (2009) even finds that some faculty members believe publications are valued above "providing a contribution to the advancement of business knowledge".

## 2. Additional Suggestions to Measure Impact

These issues highlight the importance of utilizing a variety of impact metrics that can be used to evaluate the relevance, or long-term value, of intellectual contributions. In addition to the impact measures listed in the Appendix of the proposed AACSB standards the authors offer the following suggestions that might be used to help demonstrate research impact. These suggestions are designed to help faculty and administrators evaluate the impact of research across practice (i.e., demonstrating a link between research and business/management practice), theory (i.e., influencing future theoretical and empirical lines of research), and pedagogical (i.e., influencing the teaching and learning environment) outcomes.

**Indexing in Appropriate Citation Index:** ABI/Inform, the Web of Science/ISI Research Index, Google Scholar, and other common citation indexes provide valuable tools that can be used to gauge the influence of a single manuscript or examine the impact of a faculty member's body of work over a period of time. Most university library services subscribe to ABI/Inform and/or the Web of Science/ISI Research Index. Within both

these frameworks you can conduct an author citation query or an article title query to see where (and how frequently) a particular author or manuscript has been cited. While the ABI/Inform and Web of Science indexes provide relatively complete coverage of business research, they do not index every potential publication outlet so administrators and faculty need to be thorough to ensure that all relevant citations are measured and evaluated.

In an effort to broaden the scope of the traditional citation indexes (like ABI/Inform and the Web of Science/ISI indexes), Google Scholar is built to search a wide range of outlets that may not be included in traditional academic citation indexes. Google Scholar (http://scholar.google.com/) is a search tool based on the Google search platform—which is one of the world's most dominant and well developed search engines. Google Scholar indexes a wide range of academic material (including peer-reviewed journal articles, proceedings, presentations, book chapters, etc.) and one of the most useful features of the index is the ability to search for particular citations by title and author to determine how an article is cited across time (Noruzi, 2005). The Google Scholar output also provides a rank order list of the manuscripts that have cited a particular research article. This list will include articles in the popular press (business week, Inc., etc.), academic literature, and academic conference proceedings.

Additionally, there is a software program called "Publish or Perish" developed by Anne-Wil Harzing that is designed to help evaluate the impact of research (http://www.Harzing.com). Publish or Perish uses Google Scholar to generate a list of citations and then it analyzes all citations by a particular author (or author team). Google Scholar can be used to identify important impact metrics including the total number of papers an author has produced, the total number of citations generated across an author's career, and average number of citations for each research manuscript. In addition to these useful metrics, the Publish or Perish program also provides metrics that can be used to gauge an author's impact relative to his or her peers within a given academic discipline (e.g., accounting vs. operations). For instance, the Publish or Perish output provides a measure of Hirsch's h-index which is designed to measure an author's overall research impact including the overall number of articles (a quantity measure) with the academic prestige of a particular publication outlet (a quality measure). Additionally, Google Scholar provides a measure of Egghe's g-index which is designed to enhance the h-index by more heavily weighting highly cited manuscripts.

It is important to note, that using a combination of the above indexes is the best way to provide an overall measure of research impact because each citation index can potentially include different publication outlets and citations. Against et al. (2012) contend that using citations is too narrow of a measure because it focuses solely on the academy.

**Quality of Publication Outlet:** In addition to focusing on the citation rates of a particular manuscript or the total number of citations over one's career, another method to evaluate research impact is to focus on the quality, circulation, and intended audience of the publication. There are two useful proxy measures of quality that can be used to evaluate the overall quality of a publication—acceptance rate and review process. For example, acceptance rates can be used to differentiate between different tiers of research-with lower acceptance rates (e.g., Tier 1 = 25% and below; Tier 2 = 25-40%; etc.) indicating higher quality outlets. Additionally, administrators and faculty members can evaluate the type (editorial, peer, blind-peer) of review process used at a particular journal, with blind peer-review typically being considered the most difficult review process. These indicators provide a measure of the difficulty of publishing in a particular outlet and, as such, both measures provide a more immediate (as compared to citation rates) indicator of the quality and potential impact of a manuscript.

It is also important to look at the circulation number associated with a particular journal. Circulation numbers

provide some indication of how many people may have consumed a research product. It is highly probable that many more people read, think about, and use the knowledge presented in an article than ultimately cite it in future research. Additionally, there are some well circulated business publications (e.g., Harvard Business Review's monthly circulation is approximately 250,000) that have a monthly circulation that is far greater than comparable academic journals (e.g., Academy of Management Review monthly circulation is approximately 17,000).

Furthermore, it is important to evaluate the intended audience (academic, practitioner, teacher, etc.) for a publication outlet. As noted in the recent AACSB report, "The Impact of Research", as well as other AACSB reports and white papers, evaluating the impact of research also has to take into account the mission of a particular College. Thus, the ultimate weight assigned to the quality of publication (acceptance rates), intended audience (scholarly or practitioner), and purpose of research (theory building, practice-focused, pedagogy-focus) should ultimately be driven by the mission of the academic unit. For example, schools with a teaching focus may devise faculty research evaluation metrics that allow individual faculty members to place heavier weights on case research or consulting reports generated for local businesses. In essence each individual faculty member will have to bear some responsibility for demonstrating the impact of their research.

**Peer and Stakeholder Awards and Recognition:** Recognition by peers represents another potential measure of research impact. Peer recognition of research quality and impact include regional or national awards designed to honor the impact and quality of a single piece of work (e.g., best paper awards, top presentation awards from academic conferences, dissertation research awards, etc.), regional or national awards designed to honor the impact and quality of an author's overall contribution to their disciplines (e.g., college/university level awards, early career award, being named a fellow of an academic group such as the academy of management, etc.). Appointment to the editorial boards for academic journals can also serve as a form of peer recognition of faculty impact. Because appointment to journal editorial boards is typically dependent upon the knowledge and expertise of a faculty member, being appointed to the editorial board for a top discipline based journal can also serve as an indicator of the impact of one's career research impact.

Depending on the college level mission and the career interest of the faculty member, it may be important to demonstrate impact beyond the academic peer measures outlined above. For faculty in these institutions, it would be important to highlight recognition from other stakeholder groups. It is also necessary for the institutions to implement performance review practices that incorporate external factors (Aguinis et al., 2012). The results outlined by Aguinis et al. also show researchers rated highly with academic measures are not necessarily highly rated with other, non-academic, measures. This evidence could include receiving a stakeholder funded named professional societies. Additional ways to demonstrate impact in this category would be to indicate contributions to management workshops, executive education sessions, keynote addresses or invitations for professional workshops. Furthermore, serving in a leadership role on a local, regional, or national board or advisory committee can serve as a useful proxy for the impact of a faculty member's research since these appointments are typically based on demonstrated accomplishments in a particular area. These opportunities are available in almost every region for faculty members that are engaged in the local business community.

Unit Sales and Intellectual Contribution Persistence: Another useful metric to evaluate the impact of intellectual contributions is the unit sales of textbooks, pedagogy-related materials, or other intellectual contributions. Just as businesses use market share to evaluate the impact and reach of their product/service line, unit sales can be used to determine the impact of a publication. Unit sales, in an academic context, represent the

breadth of adoption and higher numbers serve as a reliable and valid indicator of the quality and originality of an intellectual contribution. When examining unit sales, it is important to use discipline based norms to establish appropriate comparison numbers.

Related to using unit sales as a measure of research impact, the persistence (or continued) adoption and support of an intellectual contribution or research effort is a valuable measure of impact. For example, textbooks, teaching manuals, and other intellectual contributions that are updated and published as new editions demonstrate a continued impact and influence on the field. Additionally, as noted in the January 18, 2013 AACSB Proposed Business Standards, both "the originality and significance of learning including the depth and duration of usefulness as well as adoption or citation by peers" and "the breadth, value, and persistence of the use and impact of the creative work" should serve as appropriate guides for documenting the longstanding impact of intellectual contributions (p. 19).

Paid Development of Any Pedagogical Materials: Another important metric that can be used to evaluate the impact of one's intellectual contributions is being invited to create and/or review pedagogical materials. As a faculty member builds their research portfolio they become subject matter experts in their discipline. Paid development of pedagogical content can serve as recognition from industry experts outside of academia. For instance, editors and product managers from publishing companies (Pearson, Cengage, Wiley, etc.) regularly identify academic scholars to prepare pedagogically related materials including study guides, teaching activities, and test item content. The authors of this type of material rely on expertise developed through research and practice to develop content that clearly focuses on the introduction or application of knowledge to the teaching of business or management disciplines.

Serving on Dissertation/Thesis Committees outside One's Academic Area: Another mechanism to demonstrate the impact (both past and future) is by serving on dissertation and thesis committees outside of your college or university. As students build their review committee, it is often necessary to bring in subject matter experts outside of their discipline area. When a faculty member has established a meaningful and impactful line of research, and built a unique body of knowledge, they are often asked to serve on thesis and dissertation committees outside of their academic unit. This can serve as an important recognition of the impact/influence of a faculty member's line of research as well as clearly establishing future impact by shaping the intellectual development of future generations of scientists and practitioners.

### 3. Conclusions

Creating intellectual contributions is a time consuming and often painful process. However understanding ways that your research impacts others can make the process very rewarding, both personally and professionally. Research is also a necessity for all academic business faculty members and if administrators can quickly articulate expectations then the transition to measuring research impact will be much easier. To quote Spencer Johnson in his motivational tome on change, "Who Moved my Cheese?", "The quicker you let go of the old cheese, the sooner you can enjoy the new cheese."

It is important to note, the metrics and ideas presented above do not represent an exhaustive list of outcomes or measures of impact. There is no "one size fits all" metric that can be used by every school. Rather, the suggestions should serve as a starting point as administrators identify impact metrics that align with the mission of their respective academic units.

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