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## A GLANCE AT GERMAN FINANCIAL ACCOUNTING RESEARCH BETWEEN 1950 AND 2005: A PUBLICATION AND CITATION ANALYSIS\*\*

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### ABSTRACT

We examine German financial accounting research between 1950 and 2005 by analyzing articles from leading academic journals. Our analysis documents increases in articles in academic journals, multi-authorship, pages, and references per article. Our citation analysis reveals major German characteristics, especially the dominance of German researchers and the significant role of books, practitioner journals and legalistic/jurisdictional sources. However, we find that since the 1990s, English language publications, English references per article, and the number of frequently cited non-German authors and non-German journals have increased. Moreover, publications in English language journals by German accounting researchers indicate the adoption of a more Anglo-American research and citation style. We also examine major journals and protagonists of German financial accounting research, especially authors and institutions.

JEL-Classification: M41, N00.

Keywords: Accounting History; Bibliometrics; Citation Analysis; German Financial Accounting Research; Germany; Publication Analysis; VHB.

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### 1 INTRODUCTION

German financial accounting research has been an integral part of German business administration research. Some researchers even claim that accounting research helped German business administration to establish itself as a science (Gutenberg (1957); Busse von Colbe (1992); Busse von Colbe (1996)). Therefore, one of the oldest and most important associations for business administration in Germany, the Schmalenbach Society, bears the name of Eugen Schmalenbach, an accounting researcher. However, despite the

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long tradition and relevance of German financial accounting research, its structure and development have been largely unexplored. Most German financial accounting researchers have a general idea of the structure of German financial accounting research, and a few literature reviews, in particular those by Mattessich (2008), Küpper and Mattessich (2005), Schneider (2001), and Busse von Colbe (1996), have studied certain aspects. But a more comprehensive empirical analysis of German financial accounting research over time is still outstanding.

The second half of the twentieth century is especially worth investigating in more detail. At the beginning of the twentieth century, German accounting research took the “leadership in accounting thought” (Küpper and Mattessich (2005)). Studies in general accounting purposes and objectives (*Bilanztheorien*) by researchers such as Schär (1890), Nicklisch (1912), or Schmalenbach (1919) received considerable international attention (e.g., Graves, Dean, and Clarke (1989); Mattessich (1995)). But even though there is no thorough analysis or documentation of German accounting research during this era, German accounting research since World War II is generally considered insignificant in terms of relevance and output (e.g., Dyckman and Zeff (1984); Carmona, Gutiérrez, and Cámara (1999); Prather-Kinsey and Rueschhoff (2004); Evans (2005); Küpper and Mattessich (2005); Chan, Chen, and Cheng (2006; 2007))<sup>1</sup>. This observation is especially valid for financial accounting research, since there are a few empirical papers focusing on managerial accounting research in Germany (e.g., Binder and Schäffer (2005); Schäffer, Binder, and Gmür (2006); Wagenhofer (2006)).

In this paper we conduct a publication and citation analysis to characterize the structure and development of German financial accounting research. These bibliometric research methods<sup>2</sup>, firstly introduced by Pritchard (1969) as an “application of mathematical and statistical methods to books and other media of communication”, describe the publications within a certain field of science (here, financial accounting), from a specific region (here, the German language area) and for a particular period (here, 1950-2005). Publication analyses deal with the main outcome of research, namely publication. These analyses are mostly limited to journal publications (e.g., Whittington (1993); Hasselback, Reinstein, and Schwan (2000); Jokić and Ball (2006)). On the one hand, scientific performance is primarily evaluated by way of publications in academic journals. On the other hand, other publication media (e.g., monographs, anthologies) differ largely in terms of their structure, form, scope, and content. Basically, publication analyses rely on the notion that the results obtained can be further generalized and thus provide information on the entire field of science (e.g., Binder and Schäffer (2005); Binder (2006)).

We extend our publication analysis with citation analysis to capture an additional measure of scientific activity (Garfield (1972; 1979a), conducted by Gross and Gross (1927) for the first time), and to analyze the importance associated with the cited source or its

1 Language barriers on both sides and German accounting researchers' reluctance to publish in English seem possible explanations (Simon (1993); more general Carmona, Gutiérrez, and Cámara (1999); Raffournier and Schatt (2010)). Moreover, research methodologies adopted by German accounting researchers seem to differ from those applied by “mainstream” (Chua (1986)) Anglo-American researchers (Fülber and Sellhorn (2006)).

2 Bibliometrics constitutes a subfield of scientometrics, the science of measuring and analysing science, see Jokić and Ball (2006) and also Binder and Schäffer (2005); Ball and Tunger (2005); Binder (2006).

author in the respective citing publication (Schäffer and Binder (2006); Meyer, Schäffer, and Gmür (2008)). Thus, citations are an integral part of the academic communication processes embodied in publications. The intrinsic value of citations is based on the notion that researchers resort to other researchers' work<sup>3</sup> and document this recourse by citing it (e.g., Gmür (2002); Dyckhoff and Schmitz (2007)). Admittedly, citations do not necessarily reflect the structure of a scientific discipline, because they are highly subjective and influenced by a large variety of factors (Jokić and Ball (2006). Although there is no theory of citing (Cronin (1981)) and "despite its flaws, citation analysis has demonstrated its reliability and usefulness as a tool for ranking and evaluating scholars and their publications. No other methodology permits such precise identification of the individuals who have influenced thought, theory, and practice" (Hattendorf Westney (1998); also Brown and Gardner (1985b); Garfield (1979b); Norris and Oppenheim (2003)).

In this paper we analyze German financial accounting publications and their references published in the 1950 to 2005 period. Our analysis reveals some facets of German financial accounting research and its development throughout this period.

The paper is structured as follows: In Section 2 we review prior studies on publication and citation analysis, especially with respect to German accounting research. In Section 3 we outline the proceeding of our analyses and in Section 4 we present our main findings. Section 5 concludes.

## 2 PRIOR PUBLICATION AND CITATION LITERATURE

There have been numerous studies on the publications and citation data of accounting research, especially with an Anglo-American or international focus. These studies include Dyckman and Zeff (1984), Heck and Bremser (1986), Prodhan and AlNajjar (1987), Heck, Jensen, and Cooley (1990), Zeff (1996), Carmona, Gutiérrez, and Cámara (1999), Hussey and Cottingham (1999), Anderson (2002), and, more recently, Prather-Kinsey and Rueschhoff (2004), Beattie (2005), Jones and Roberts (2005), Glover, Prawitt, and Wood (2006), or Chan, Chen, and Cheng (2006; 2007) for publication analyses<sup>4</sup>, and McRae (1974), Brown and Gardner (1985a; b), Brown, Gardner, and Vasarhelyi (1987), Bricker (1988), Beattie and Ryan (1989), Brown (1996), Anderson (2002), Bricker, Borokhovich, and Simkins (2003), and Meyer, Schäffer, and Gmür (2008) for citation analyses.

Despite its merits and its popularity in Anglo-American accounting research, publication and citation analyses in the general field of accounting have been relatively scarce in Germany. The few analyses of German accounting publications (Küpfer (1993); Binder and Schäffer (2005); Hess et al. (2005); Wagenhofer (2006)) and their references relate to

3 Bricker (1988) finds out that the "accounting discipline does accumulate knowledge in a manner similar to that suggested by the scientific model"; this notion may refer to Newton's aphorism "standing on the shoulders of giants" (e.g., Merton (1965), Meyer, Schäffer, and Gmür (2008)).

4 Publication analyses with an emphasis on management accounting (e.g., Klemstine and Maher (1984), Kaplan (1986), Shields (1997), or Scapens and Bromwich (2001)) are not presented here in greater detail. See also the overview of publication analyses provided by Binder (2006, footnote 114).

the field of management accounting research (in Germany, often referred to as “Controlling”, see Messner et al. (2008)) and accordingly only touch marginally – if at all – on German financial accounting research. *Table 1* shows that these German publication analyses focus on articles from a large variety of both scientific and practitioner-oriented German or German-language journals published at different times between 1970 and 2004. Only Wagenhofer (2006) includes leading English-language periodicals. This inclusion poses the additional problem of identifying German or German language research. To solve that problem, Wagenhofer regards research as being German if its authors are affiliated with institutions situated in a German-speaking country (Germany, Austria, and Switzerland).

**Table 1: German publication and citation analyses with accounting focus**

Authors (Year)	Content	Period	Analyzed Journals*	No. of Articles	Analytical Focus
Binder/Schäffer (2005)	Publication analysis: Development of German management accounting	1970-2003	10 journals: BFuP, Controlling, CM, DB, DBW, DU, krp/ZfCM, ZfB, zfbf/sbr, ZP	2,529 related to management accounting	Theme and method classification, author classification and analysis
Hess et al. (2005)	Publication analysis: Themes and tendencies prevalent in German management accounting research	1998-2003	4 journals: Controlling, ZfB, zfbf/sbr, krp/ZfCM	615 related to management accounting	Theme classification
Küpper (1993)	Publication analysis: Overview of German empirical management accounting research	1980-1990	7 journals: BFuP, Controlling, DB, DBW, krp, ZfB, zfbf	230 related to management accounting	Theme and method classification, in-depth analysis of empirical papers
Schäffer, Binder, and Gmür (2006)	Citation analysis: Structure and development of management accounting	1970-2003	6 journals: zfbf/sbr, ZfB, DBW, DU, Zeitschrift für Planung und Unternehmenssteuerung and BFuP	643 management accounting articles containing 18,125 citations	Analysis of cited publications and authors, identification of the most influential publication media in management accounting research
Wagenhofer (2006)	Publication analysis: Review of German management accounting research	1998-2004	15 journals: BFuP, DBW, DU, JfB, ZfB, zfbf/sbr, AOS, CAR, EAR, JAE, JAR, JMAR, MAR RAST, TAR	240 related to management accounting	Classification according to theme, setting, theoretical foundation and research method

\* AOS – Accounting, Organizations and Society, BFuP – Betriebswirtschaftliche Forschung und Praxis, CAR – Contemporary Accounting Research, CM – Controller Magazin, DB – Der Betrieb, DBW – Die Betriebswirtschaft, DU – Die Unternehmung, EAR – European Accounting Review, JAE – Journal of Accounting and Economics, JAR – Journal of Accounting Research, JfB – Journal für Betriebswirtschaft, JMAR – Journal of Management Accounting Research, krp – Kostenrechnungspraxis, MAR – Management Accounting Research, RAST – Review of Accounting Studies, sbr – Schmalenbach Business Review, TAR – The Accounting Review, ZfCM – Zeitschrift für Controlling und Management, ZfB – Zeitschrift für Betriebswirtschaft, zfbf – Zeitschrift für betriebswirtschaftliche Forschung, ZP – Zeitschrift für Planung.

Apart from the publication analyses focusing on management accounting, Macharzina, Wolf, and Oesterle (1993), and Macharzina, Wolf, and Rohn (2004) focus on other, more general fields of German business administration. Invaluable insights into German financial accounting research provide Mattessich (2008), Küpper and Mattessich (2005), Schneider (2001), and Busse von Colbe (1996) with their extensive literature reviews. However, these reviews cannot be considered as publication analyses because they lack the application of any sort of mathematical or statistical methods which are characteristic for bibliometric research.

Citation analyses have been conducted only rarely in German business administration research. This paucity is to some extent due to the fact that no electronic citation indices exist for German business administration research. Therefore, a manual compilation of citation data is necessary. It stands to reason that some German researchers have continually called either for a separate German citation index similar to the SSCI (and/or SCI-X) or for the inclusion of bibliometric German periodical data in existing indices. The few existing German citation analyzes include Albrecht (1999; 2002), Gmür (2002; 2007), Schlinghoff and Backes-Gellner (2002), Dyckhoff, Thieme, and Schmitz (2005), Dyckhoff and Schmitz (2007), and Schäffer, Binder, and Gmür (2006). These authors focus on non-accounting fields or on German business administration in general and extract citations from scientific German language business journals. (We note that there is no specific refereed accounting journal in Germany, Austria, or Switzerland<sup>5</sup>.) Only Dyckhoff, Thieme, and Schmitz (2005) and Dyckhoff and Schmitz (2007) exploit an international journal sample by evaluating the international impact of publications by German business researchers, identified as members of the German language academic association for business research (VHB – Verband der Hochschullehrer für Betriebswirtschaft e.V.)<sup>6</sup>. To our knowledge, the only citation study covering German accounting research is Schäffer, Binder, and Gmür (2006). These authors analyze the structure and development of management accounting research by using citation and co-citation analysis of management accounting articles published between 1970 and 2003 in six leading German-language academic journals<sup>7</sup>. As far as we can determine, no citation analysis so far has dealt with German financial accounting research.

### 3 DATA AND METHOD

Because we focus on German financial accounting research, we classify financial accounting research as being German. There are various factors that indicate German

5 Zeff (1996, exhibit II) exposes the puzzling fact that among 77 academic accounting research journals, not a single one is published in Germany.

6 The VHB was founded in 1921 in Frankfurt/Main and re-established in 1948/1949. Today, it is organized as a registered association (eingetragener Verein, e.V.) for business professors from mainly German-speaking universities in Germany, Switzerland, and Austria, and occasionally from other countries. See von Kortzfleisch (1976) for the early VHB history.

7 Articles were considered as related to management accounting, if the term “Controlling” or “Controller” respectively or the reference to a management accounting instrument (Controllinginstrument) could be explicitly found in the title, abstract or summary (Schäffer, Binder, and Gmür (2006)).

origin, especially the language, the location of the publication outlet, the theme, the nationality of the author, the cultural roots, or the affiliated institution. In this paper we use a two-step mechanism to identify German financial accounting research. We first identify a list of German-speaking accounting researchers and second, compile their scientific publications in the field of financial accounting.

### 3.1 IDENTIFICATION OF GERMAN-SPEAKING ACCOUNTING RESEARCHERS

In contrast to prior bibliometric studies that exclusively focus on German periodicals (e.g., Albrecht (1999; 2002), Schäffer, Binder, and Gmür (2006)) we expand our analysis in order to identify “German” research in an international publication environment. To capture German-speaking accounting researchers we follow Dyckhoff, Thieme, and Schmitz (2005) and Dyckhoff and Schmitz (2007) and refer in a first step to the members of the German-speaking academic association for business research (VHB). We identify these members by using the VHB membership rosters, irregularly published between 1958 and 2007. To extract accounting researchers, we use membership in the VHB’s committee for accounting (Kommission Rechnungswesen) as a selection criterion. In contrast to Wagenhofer (2006) we do not at first apply the affiliation criterion and instead choose another perspective. The affiliation criterion is based on the assumption that the current environment and institution conducts German research, even if foreigners are briefly employed at German-language institutions. Instead, the VHB-membership criterion rests more upon the assumption that education and culture shape the German character of research even when German-language researchers work outside of German-speaking countries.

Our proceeding might exclude some accounting researchers from the analysis because there is neither a mandatory VHB membership<sup>8</sup> nor an opportunity to track all research-oriented practitioners. However, the size of the group we identify is still sufficient, since business academics are highly organized (currently above 90%, Depping (2008)) and because of the consideration that practitioners do not regularly contribute to the scientific progress<sup>9</sup>. Our way of proceeding is also justified by the fact that the VHB focuses

8 One of the best-known examples for a non-VHB accounting committee member is Karlheinz Küting, born 1944, accounting and auditing professor (emeritus since 2009) at Saarland University. Between 1973 (PhD thesis) and the end of our sample period, 2005, Küting published 551 books and articles, 12 articles of which appeared in leading academic journals (ZfB (8), DBW (3) and MIR (1), the latest 1987 in ZfB). Five of these articles qualify as countable financial accounting publications due to our bibliometric standards. Therefore, even such an unusual case of a non-VHB member with a remarkable publication record cannot affect our results in the publication analysis considerably. When we apply the affiliation criterion in the parallel analysis, only one researcher (Thoms) appears additionally in the top 20 ranking of researchers in terms of publication 1950-2005. Other researchers may appear in the overall ranking if the affiliation criterion is used over the entire period. However, although citation analysis captures all authors irrespective of their VHB membership, it still reveals the overwhelming dominance of VHB accounting committee members under the most frequently cited authors.

9 Practitioners are not completely excluded. Some practitioners – most of them honorary professors (e.g., Löw, Ludewig, Naumann, or Schruff) – join the VHB accounting committee and try to demonstrate that they belong to the research community. Moreover, in Paragraph 5 the VHB constitution allows individuals who are not professors to be members if they are actively engaged in scholarly research.

traditionally more on tenured professors, which means that the VHB-membership rate of younger PhD-researchers and assistant professors (Habilitanden, Juniorprofessoren) is comparatively low. When younger researchers join the VHB later, shortly before or after their appointment to professorship, we record them and collect *all* their publications, including prior ones<sup>10</sup>. The VHB membership criterion not only captures the main body of German-speaking accounting researchers *over time*, it also ensures the reliability and reproducibility of the results.

A major problem arises because, until the 1970s, there were no VHB committees that tracked the increasing number of VHB members and the emerging scientific communities within the VHB. Thus, for the period before the establishment of the VHB's committee for accounting, we focus on the individual research interests provided in the membership rosters since 1967 and select all of those academics with an interest in accounting (Rechnungswesen). A precise identification of accounting researchers from earlier registers (1958, 1960, and 1963) remains impossible. Accounting researchers active before 1967 are nonetheless ascertained by the chosen identification process over time. Only those who either died or resigned from the VHB before 1967 are left out of further analysis. To account for this deficiency, we conduct a parallel analysis for the first two decades (1950s, 1960s) that is based on the affiliation criterion (institutions in Germany, Austria, and Switzerland). This parallel analysis also has the advantage of covering the early period of VHB's existence after re-establishment in 1948/49 when the rate of academic organization in the VHB was initially lower (von Kortzfleisch (1976)). However, we accept a break in our time series between the 1960s and 1970s if we compare these results with the more meaningful VHB criterion since the 1970s. To enable unbiased comparison based on the same identification procedure, we also provide the pure VHB oriented results for the 1950s and 1960s.

Finally, we add individual information about the German researchers with respect to the institutions from which they obtained their doctoral degrees<sup>11</sup>.

### 3.2 IDENTIFICATION OF THE RELEVANT FINANCIAL ACCOUNTING PUBLICATIONS

To capture the relevant publications of the identified individuals we only consider articles from leading academic journals published between 1950 and 2005. Although the German business and accounting research tradition and the corresponding academic qualification process have been less focused on refereed articles during this period (e.g., Wagenhofer (2006), Küpper and Mattessich (2005) with reference to the distinguished role of the Schäffer-Poeschel series of handbook encyclopaedias in German research publication), this restriction makes it possible for us to handle the extensive amount of accounting literature. It is not possible to reliably identify research publications in the vast bulk of publications in non-refereed practitioner's journals, handbooks, textbooks, and anthologies. Therefore, our selection criterion represents

10 Only younger researchers not organized till 2007 are not captured by our procedure. This limitation seems acceptable due to our observation period from 1950 till 2005.

11 We extract the information about the degree-granting institution from the doctoral thesis itself or, if the thesis is not available, from the curricula vitae and other publications.



the way we identify an essential subset of the “pure” research outcome as we consider high(er) ranking journal publications as a suitable, internationally approved and also reliable proxy for research activity (e.g., Hasselback, Reinstein, and Schwan (2000)).

We consider journals as leading academic journals if they are ranked at least “B” by the VHB-Jourqual, a ranking of German and international academic journals based on a survey of 653 members of the VHB (Hennig-Thurau, Walsh, and Schrader (2004))<sup>12</sup>. No further weighting factor is introduced to differentiate between the identified journals, especially between the so-called “A” and “B” journals. The leading position of these academic journals is justified by a certain perceived minimum quality level that often correlates with a double blind review process<sup>13</sup>. This process is used regularly, but not necessarily in every journal over the entire time period, since these review processes have been used in Germany, if at all, only since the 1990s. As usual, rankings are the object of criticism (e.g., Beed and Beed (1996); Davis (1998); Chow, Chen, and Cheng (2007)) and the VHB-Jourqual is no exemption (Schulze, Warning, and Wiermann (2008), Seiter and Stirzel (2005)). Moreover, the VHB-Jourqual is of recent vintage, but the observation period ranges from 1950-2005. This temporal mismatch might lead to some distortions, because the quality and the perception of the quality of publications might change over time. However, relying on the VHB-Jourqual seems justified, since the VHB-Jourqual is currently the only established ranking of German academic business administration journals and similar bibliometric studies (e.g., Binder and Schäffer (2005); Wagenhofer (2006); Schäffer, Binder, and Gmür (2006); Dyckhoff and Schmitz (2007)) have also referred to its results.

Since we are aware that leading German academic journals in business administration do not specialize in specific academic fields (also Wagenhofer (2006)), we need further selection criteria to identify financial accounting research exclusively. These criteria are also necessary because members of the VHB’s committee for accounting include both management and financial accounting researchers. Hence, we only examine articles from general business administration or specialized accounting or finance academic journals. Moreover, we consider these articles only if their title relates to financial accounting. Thus, we manually classify the list of respective articles by its title using ten subject areas that comprise the broader field of financial accounting. Our subject areas are general accounting topics, recognition and measurement, financial statements/balance sheet items, auditing, financial accounting systems/standards, tax accounting, financial statement analysis, financial statement principles, disclosure, and other financial accounting related topics. To ensure objectivity and reproducibility, we conduct a preliminary test of the classification scheme.

12 This ranking includes a total of 1,259 relevant German and international journals. Even though there has been a follow-up of the first VHB-Jourqual (Schrader and Hennig-Thurau (2009)) that shows slightly different results, we note that our analysis refers to the 2004 results.

13 The review process is considered the superior form of identifying “good” research in the worldwide accounting research community – also for the purpose of academic qualification (e.g., Whittington (1993); Hasselback, Reinstein, and Schwan (2000); Jokić and Ball (2006)). However, the exclusive focus on journal publications can be criticized due to the questionable review process (e.g., Moizer (2009)) and its “quite strong intellectual biases and prejudices” that may lead to academic conformity (Hopwood (2007), similar, Parker, Guthrie, and Gray (1998); Gendron (2008)).



The term “financial accounting” comprises all fields in the standardized generation and validation of corporate financial history information and disclosure to external firm contract partners such as owners, capital market investors, creditors, and fiscal authorities (e.g., Christensen and Demski (2003)). Thus, the term also includes tax accounting and auditing issues. We consider both of these latter two issues because they are so closely interwoven with financial accounting, especially in the German-language area.

We exclude obituaries, keyword articles, comment papers, discussions, book reviews, and editorials from our analysis, because these publications are not generally viewed as research in a narrower sense and usually do not include extensive bibliographic references (see Binder and Schäffer (2005)). However, we do retain special issues in the sample. We regard the issue-focused articles of an often separately edited special issue as being equally prestigious and research-oriented as articles in regular issues (see Wagenhofer (2006)). Nevertheless, we do not include special issues in monograph style (without a compilation of articles) with institutionalized author groups, mainly working group publications, even if VHB members have contributed.

Finally, we manually compile the references of the identified financial accounting articles. If articles, especially older ones, do not contain a list of references, then we extract the references from the footnotes. We exclude articles from citation analysis that contain less than five references because we assume that research rests on prior literature (Bricker (1988) for accounting research, more general Merton (1965), de Solla Price (1963)) and, therefore, on a minimum level of references. The citation data comprise author(s), type of source, language, and year of publication. We classify the type of cited sources as either referring to monographs, anthologies, leading academic journals, other journals, and other sources. We further subdivide references classified as “others” into commentaries/handbooks, legalistic/jurisdictional references, miscellaneous, newspaper articles, and working papers. If a reference mentions a journal, we also record that journal’s name.

## 4 RESULTS AND ANALYSIS

### 4.1 PUBLICATIONS AND CITATIONS: NUMBERS AND STRUCTURE

We identify 392 accounting researchers based on 14 VHB membership rosters (the first from 1967, the last from 2007). Among these researchers, 175 have published 516 financial accounting articles in 22 leading academic journals<sup>14</sup> between 1950 and 2005. The fact that our second identification step shows that more than 200 researchers have not authored an academic financial accounting article can be primarily explained by the broad field of research activities represented by the VHB’s committee for accounting. Especially management accounting research is not incorporated in the publication analysis (step 2), but the

<sup>14</sup> The *zfbf*, *zfhf*, and *sbr* as well as the *Zeitschrift für die gesamten Staatswissenschaften* and the *Journal of Institutional and Theoretical Economics (JITE)* are counted as one as these journals had just been renamed.

respective researchers of this field are (step 1)<sup>15</sup>. The comparatively low prominence of refereed academic journals in the German business research tradition might also add to this.

Because we wish to capture the respective research in the 1950s and 1960s more comprehensively, we also use the affiliation criterion and identify another 217 German financial accounting articles from 174 authors. In light of the fact that there is no information on the research orientation of VHB members and the much lower rate of VHB organization, we consider that these affiliation-oriented results are more meaningful than the sole VHB criterion, but only with regard to these two early decades. Therefore, we accept the structural break in our time series and combine the affiliation based results in the 1950s and 1960s with the VHB results since the 1970s to obtain our totals<sup>16</sup>. Within this matrix we identify 733 articles, 639 articles in the German language (87.2%) and 94 in English (12.8%). The latter are published almost exclusively in non-German publication outlets. The 733 articles contain a total of 12,478 pages, averaging 17.02 pages per article.

We exclude 139 publications (126 in German, 13 in English) from the citation analysis because their references do not exceed the minimum citation threshold. The remaining 594 financial accounting articles contain a total of 22,971 references, averaging 38.67 citations per article. We categorize the references as 16,420 German (71.5%), 6,384 English (27.8%), and 167 other language sources (0.7%). The 513 German-language articles cite German sources far more frequently: 15,420 German language citations account for 78.9% of all references in German articles (19,546). In contrast, the 81 English language articles frequently refer to English-language sources (2,359 citations account for 68.9% of all 3,425 references here, similar Albrecht (2002)). The references are on average authored by 1.27 researchers (1.17 for German and 1.51 for English language citations). We note that we exclude references which we classify as either legalistic/jurisdictional or miscellaneous from author-related citation analysis because they usually do not mention an author name. *Table 2* summarizes these bibliometric data.

For our parallel analysis of the 1950s and 1960s, we find significant differences between the publication and citation characteristics of VHB and non-VHB members. The portion of English-language references is considerably higher in articles by VHB members, as are the references per article. The latter finding is complemented by the fact that most of the articles excluded from our citation analysis belong to non-VHB members.

The development of publications over time is characterized by an increase of identified financial accounting publications in leading academic journals (see Binder and Schäffer (2005) for management accounting research). This notion applies to the VHB-criterion-based time series. The picture is less conclusive when we consider the parallel analysis and the affiliation-based data. We also suppose that the total number of all articles has increased

15 Our results are also in line with other, non-business fields of research in which the number of (very) productive academics is approximately the square root of the total number in the relevant research community ("Lotka's square root law of elitism", see with more references Macharzina, Wolf, and Rhon (2004)).

16 We note that the VHB-oriented results in the 1950s and 1960s, which we provide to enable unbiased comparison over the entire period, are a subset of the affiliation-oriented results, since there were almost no VHB-members in the accounting community outside of German-language countries in these early decades.

Table 2: Publication and citation statistics

<b>Panel A: Publication analysis</b>		<b>1950-1959</b>		<b>1960-1969</b>		<b>1970-1979</b>		<b>1980-1989</b>		<b>1990-1999</b>		<b>2000-2005</b>		<b>Total</b>
Author identification: VHB criterion (VHB) or affiliation criterion (AC)		AC	VHB	AC	VHB	VHB	VHB	VHB	VHB	VHB	VHB	VHB	AC (50s, 60s and VHB (since 70s)	
<b>No. (%) of articles</b>		161 (100)	34 (100)	140 (100)	50 (100)	93 (100)	134 (100)	129 (100)	103 (79.8)	76 (100)	733 (100)			
■ in German language		158 (98.1)	31 (91.2)	126 (90.0)	39 (78.0)	85 (91.4)	123 (91.8)	103 (79.8)	44 (57.9)	639 (87.2)				
■ in English language		3 (01.9)	3 (08.8)	14 (10.0)	11 (22.0)	8 (08.6)	11 (08.2)	26 (20.2)	32 (42.1)	94 (12.8)				
<b>No. of journals*</b>		5	3	10	9	8	11	12	14	22				
■ for German language articles		4	2	6	5	5	6	4	4	8				
■ for English language articles		1	1	5	5	3	5	9	11	17				
<b>Authors per article (av.)</b>		1.03	1.00	1.06	1.16	1.17	1.23	1.55	1.55	1.24				
■ in German language articles		1.03	1.00	1.02	1.08	1.16	1.21	1.55	1.41	1.19				
■ in English language articles		1.00	1.00	1.36	1.45	1.25	1.45	1.54	1.75	1.53				
<b>Pages per article (av.)</b>		11.99	13.32	16.59	19.12	16.62	16.81	21.02	22.55	17.02				
■ in German language articles		12.04	13.71	16.81	20.41	16.52	17.11	21.36	21.45	16.70				
■ in English language articles		9.33	9.33	14.64	14.55	17.75	13.55	19.65	24.06	19.20				
<b>Panel B: Citation analysis**</b>														
<b>No. (%) of articles</b>		77 (100)	21 (100)	106 (100)	38 (100)	84 (100)	124 (100)	127 (100)	76 (100)	594 (100)				
■ in German language		75 (97.4)	19 (90.5)	97 (91.5)	32 (84.2)	82 (97.6)	114 (91.9)	101 (79.5)	44 (57.9)	513 (86.4)				
■ in English language		2 (02.6)	2 (09.5)	9 (08.5)	6 (15.8)	2 (02.4)	10 (08.1)	26 (20.5)	32 (42.1)	81 (13.6)				
<b>No. (%) of references</b>		1,377 (100)	465 (100)	3,004 (100)	1,448 (100)	3,134 (100)	4,502 (100)	6,797 (100)	4,157 (100)	22,971 (100)				
■ German language references		1,162 (84.4)	279 (60.0)	2,560 (85.2)	1,142 (78.9)	2,386 (76.1)	3,814 (84.7)	4,462 (65.6)	2,036 (49.0)	16,420 (71.5)				
■ English language references		199 (14.4)	176 (37.8)	400 (13.3)	272 (18.8)	730 (23.3)	669 (14.9)	2,295 (33.8)	2,091 (50.3)	6,384 (27.8)				
■ other language references		16 (01.2)	10 (02.2)	44 (01.5)	34 (02.3)	18 (00.6)	19 (00.4)	40 (00.6)	30 (00.7)	167 (00.7)				
<b>References per article (av.)</b>		17.88	22.14	28.34	38.11	37.31	36.31	53.52	54.70	38.67				
■ in German language articles		17.33	20.42	28.55	39.63	36.79	37.11	54.58	61.75	38.10				
■ in English language articles		38.50	38.50	26.11	30.00	58.50	27.20	49.38	45.00	42.28				
<b>Authors per reference (av.)</b>		1.07	1.09	1.08	1.09	1.18	1.20	1.32	1.51	1.27				
■ German language references		1.07	1.08	1.06	1.06	1.13	1.17	1.21	1.34	1.17				
■ English language references		1.09	1.10	1.20	1.21	1.33	1.36	1.54	1.69	1.51				
■ other language references		1.00	1.00	1.09	1.12	1.17	1.00	1.18	1.20	1.12				

\* Some journals (e.g., MIR) publish articles in more than one language. Thus, the total is not necessarily the sum of German and English language articles; percentage calculation is inapplicable.

\*\* We distinguish in our citation analysis between the language of the article in which the reference is cited and the language of the reference itself.

in the respective time period, if for no other reason than that several new leading journals have been launched, especially since the 1970s<sup>17</sup>. The rapid rise of English-language articles from the 1980s to the 1990s is largely attributable to the inception of the European Accounting Review (EAR) in 1992. EAR provides an English-language outlet for specifically European accounting research. This observation is supplemented by the fact that the number of English-language journals in which identified articles have been published has exceeded the German journals since the 1990s (from nine to four in the 1990s, 11 to four after 2000). Other studies also indicate that German business researchers in general have increased their international awareness and their writing for English-language publications, especially since the 1990s (Gmür (2002); Dyckhoff and Schmitz (2007)).

*Table 2*, Panel B, shows that the citational patterns develop similarly. Total references as well as references per article increase. The increase in references is also illustrated by the fact that we must exclude 52.2% of all articles from the 1950s and 24.3% from the 1960s because of their limited number of references. This fact contrasts with only 1.6% from the 1990s and none after 2000. Furthermore, citations for English-language periodicals increase over time, especially after the 1990s. These findings are again in line with prior bibliometric research in other fields of German business research (Albrecht (2002); Schäffer, Binder, and Gmür (2006); Gmür (2007)). The surge of references per article, especially from the 1980s to the 1990s, may also reflect the rising availability of online sources. We also observe a general trend towards longer publications (see Binder and Schäffer (2005) for management accounting research) and multi-authorship. If we assume that sophisticated empirical-archival studies frequently rely on the complementary skills and methods of several authors, then the latter development may be especially affected by the considerable increase in empirical-archival research in the 1990s. The higher author-per-article rate in English-language references over time in comparison to German-language references (e.g., 1.54 compared to 1.21 in the 1990s, 1.69 compared to 1.34 after 2000) may support this notion, since there is a stronger prevalence of empirical “mainstream” accounting research in the Anglo-American accounting research community (Chua (1986); Fülbier and Sellhorn (2006); Meyer, Schäffer, and Gmür (2008); Fülbier and Weller (2009)).

#### 4.2 MAJOR PUBLICATION AND CITATION OUTLETS

Next, we analyze the publication and citation outlets of the identified German financial accounting articles. The *Zeitschrift für betriebswirtschaftliche Forschung* (zbf, former zfhf before 1945, and including its English language edition *Schmalenbach Business Review* (sbr) since 2000) is a major outlet for German financial accounting research with a steady dominance since the 1970s (see *Table 3*). In contrast, the *Zeitschrift für Betriebswirtschaft*

17 Obtaining the total number of all articles in all the VHB-Jourqual A- and B-journals would overstrain our data collection. We collect those numbers for a subset, the three leading German journals (zbf, ZfB, and DBW). The proportion of financial accounting articles with regard to all articles in these three journals actually decrease over time especially due to the increasing number of total articles especially since the inception of special issues in the 70s (zbf) and 90s (ZfB). This trend has not changed until 2000-2005 when DBW and zbf/sbr document increasing relative figures (not tabulated).

(ZfB) lost its leading role of the 1950s and 1960s over time<sup>18</sup>. Our results confirm the distinguished position of both journals in German business research, as indicated by prior journal rankings (Hennig-Thurau, Walsh, and Schrader (2004); Schlinghoff and Backes-Gellner (2002) with more references) and prior publication and citation analyses (Albrecht (2002), Binder and Schäffer (2005), and Wagenhofer (2006)) also for financial accounting research. We keep in mind that the time series reflects a structural break between the 1960s and 1970s, although we doubt that the change in the identification process really affects the stability of this particular result.

With a noticeable gap, *Die Betriebswirtschaft* (DBW), *Steuer und Wirtschaft* (StuW), and other journals follow. The considerable growth in “Others” in the 1990s is primarily related to the inception of the EAR in 1992 and its incremental incorporation of German accounting research in English language. Major Anglo-American accounting journals are also, although rarely, used as publication outlets. While the majority of identified publications in Anglo-American accounting journals between 1950 and 1989 were authored by German accounting researchers such as Holzer, Mattessich, Matz, and Schoenfeld, who were affiliated with Anglo-American institutions, this fact changed in the 1990s as more German accounting researchers actually affiliated with German institutions published in these journals (similar to management accounting Wagenhofer (2006) and for German business research in general Dyckhoff and Schmitz (2007)).

**Table 3: Financial accounting articles in leading academic journals over time**

No. (in %)	1950–1959	1960–1969	1970–1979	1980–1989	1990–1999	2000–2005	Total
<b>zbf/sbr</b>	42 (26.1)	35 (25.0)	41 (44.1)	55 (41.0)	51 (39.5)	30 (39.5)	<b>254 (34.7)</b>
<b>ZfB</b>	85 (52.8)	68 (48.6)	21 (22.6)	28 (20.9)	30 (23.3)	7 (09.2)	<b>239 (32.6)</b>
<b>DBW</b>	– (00.0)	– (00.0)	9 (09.7)	29 (21.7)	15 (11.6)	13 (17.1)	<b>66 (09.0)</b>
<b>StuW</b>	30 (18.6)	19 (13.6)	11 (11.8)	9 (06.7)	8 (06.2)	3 (03.9)	<b>80 (10.9)</b>
<b>Others*</b>	4 (02.5)	18 (12.8)	11 (11.8)	13 (09.7)	25 (19.4)	23 (30.3)	<b>94 (12.8)</b>
<b>Total</b>	<b>161 (100)</b>	<b>140 (100)</b>	<b>93 (100)</b>	<b>134 (100)</b>	<b>129 (100)</b>	<b>76 (100)</b>	<b>733 (100)</b>

\* Others include *Abacus* (4), *Accounting & Business Research* (2), *Accounting, Organizations & Society* (6), *Contemporary Accounting Research* (1), *European Accounting Research* (20), *German Economic Review* (1), *Finanzarchiv* (3), *International Journal of Accounting* (21), *Journal of Accounting and Economics* (2), *Journal of Accounting Research* (3), *Journal of Business, Finance & Accounting* (1), *Journal of Financial Economics* (1), *Journal of International Accounting Research* (2), *Journal of Management Studies* (1), *Kredit und Kapital* (1), *Management International Review* (12), *The Accounting Review* (9), *Zeitschrift für die gesamten Staatswissenschaften*/*Journal of Institutional and Theoretical Economics* (4).

18 The high number of relevant publications in *zbf/sbr* and *ZfB* is at least to a certain extent due to the inclusion of 29 articles from *zbf/sbr*-special issues (*ZfB*: ten articles) that were first issued in the 1970s (*ZfB*: 90s) and 12 articles published in the practitioner-oriented section *Kontaktstudium* (*ZfB*: 22 articles published in the section *Kleine Beiträge*). In contrast, only five articles originate from the *DBW*-Praxis section. The absence of articles from *DBW* in the 1950s and 1960s and the low number in the 1970s is because *DBW* publication was suspended until 1977.

The analysis of citations by type of source in *Table 4* highlights the material differences between German and English language publications in our sample. In line with prior literature (Albrecht (1999; 2002); Gmür (2002); Küpper and Mattessich (2005); Schäffer, Binder, and Gmür (2006); Wagenhofer (2006)), much of the research cited in German-language articles is published in books (monographs and anthologies account for 38.9% of all references in German-language articles; the percentage is even higher if we also include handbooks and commentaries) and practitioner journals (24.4%). In contrast, English-language articles cite more leading academic journals (32.5% in contrast to 18.8%). This difference appears to support the hypothesis that German researchers who publish in English-language journals adopt a more Anglo-American citation style (see Albrecht (2002)). The same hypothesis might also explain why working papers influence English-language articles far more than they impact German ones (24.8% compared to 4.1% of “other” sources). If we focus on the language of the reference itself, we see similar patterns. We especially note the dominance of leading academic journal articles under all English-language references (41.6%), which is due to the fact that most of the leading academic journals are in English.

**Table 4: Citational patterns by type of source**

	Monographs	Anthologies	Leading journal articles	Other journal articles	Others	Total
<b>No. (%) of references*</b>	6,318 (27.5)	2,428 (10.6)	4,781 (20.8)	5,394 (23.5)	4,050 (17.6)	<b>22,971 (100)</b>
in German language articles	5,509 (28.2)	2,085 (10.7)	3,667 (18.8)	4,775 (24.4)	3,510 (18.0)	19,546 (100)
in English language articles	809 (23.6)	343 (10.0)	1,114 (32.5)	619 (18.1)	540 (15.8)	3,425 (100)
<b>No. (%) of references*</b>	6,318 (27.5)	2,428 (10.6)	4,781 (20.8)	5,394 (23.5)	4,050 (17.6)	<b>22,971 (100)</b>
German language references	4,934 (30.0)	1,882 (11.5)	2,125 (12.9)	4,300 (26.2)	3,179 (19.4)	16,420 (100)
English language references	1,305 (20.4)	521 (08.2)	2,656 (41.6)	1,056 (16.5)	846 (13.3)	6,384 (100)
other language references	79 (47.3)	25 (15.0)	0 (00.0)	38 (22.7)	25 (15.0)	167 (100)
<b>Breakdown of references classified as 'Others'</b>	<b>Commentaries and handbooks</b>	<b>Working Papers</b>	<b>Legalistic/jurisdictional sources</b>	<b>Newspaper articles</b>	<b>Miscellaneous</b>	<b>Total</b>
<b>No. (%) of references*</b>	1,227 (30.3)	278 (06.9)	1,206 (29.8)	166 (04.1)	1,173 (29.0)	<b>4,050 (100)</b>
in German language articles	1,142 (32.5)	144 (04.1)	1,178 (33.6)	148 (04.2)	898 (25.6)	3,510 (100)
in English language articles	85 (15.7)	134 (24.8)	28 (05.2)	18 (03.3)	275 (50.9)	540 (100)
<b>No. (%) of references*</b>	1,227 (30.3)	278 (06.9)	1,206 (29.8)	166 (04.1)	1,173 (29.0)	<b>4,050 (100)</b>
German language references	1,170 (36.8)	56 (01.8)	1,184 (37.2)	150 (04.7)	619 (19.5)	3,179 (100)
English language references	56 (06.6)	222 (26.2)	22 (02.6)	16 (01.9)	530 (62.7)	846 (100)
other language references	1 (04.0)	0 (00.0)	0 (00.0)	0 (00.0)	24 (96.0)	25 (100)

\* We distinguish in our citation analysis between the language of the article in which the reference is cited (first lines) and the language of the reference itself (last lines).

Additional differentiation of the references classified as “Others” into commentaries and handbooks, legalistic/jurisdictional references, working papers, and miscellaneous shows further specifics. Cited working papers are not only more frequently referred to in the English-language publications that we analyze, but are also primarily written in English. Moreover, English-language publications refer to a lesser extent to German specific commentaries and handbooks. We see an even more definitive picture for legalistic/jurisdictional references such as court decisions. German-language articles refer to such material quite frequently, but such references are nearly nonexistent in English ones (33.6% compared to 5.2% of “other” sources). This disparity again indicates the different research character of German- and English-language articles. The former seems to be more “rules based” and, especially in the earlier decades, more normative-prescriptive (Fülbiér and Weller (2009)). Since the time after World War II German accounting researchers have focussed on interpreting the broad terminology in the principles-based German accounting legislation (Busse von Colbe (1984)). Detailed application guidance has been deduced from the vague, overarching principles codified in the Stock Corporation Act (Aktiengesetz, AktG) and, later, in the Commercial Code (Handelsgesetzbuch, HGB). Against this background, it is interesting to observe that German researchers who publish in the English language, often in non-German journals, refrain from the legal accounting environment. Apparently they choose a more internationally accepted research approach. However, English-language research by German researchers can still differ significantly from other English-language research from non-German researchers (Fülbiér and Sellhorn (2006)).

**Table 5: Most frequently cited journals**

Panel A: Journal ranking in terms of references 1950 – 2005								
Journal*	No. of (% of total / % of journal)** references and respective ranking			Journal*	No. of (% of total / % of journal)** references and respective ranking			
zbf/sbr	1,007	(4.38	9.90)	1	DBW	183	(0.80 1.80)	11
WPg	896	(3.90	8.81)	2	JoF	158	(0.69 1.55)	12
DB	767	(3.34	7.54)	3	JoA	156	(0.68 1.53)	13
ZfB	617	(2.69	6.06)	4	DStR	129	(0.56 1.27)	14
BB	601	(2.62	5.91)	5	AG	120	(0.52 1.18)	15
TAR	538	(2.34	5.29)	6	A:JPT	119	(0.52 1.17)	16
BFuP	460	(2.00	4.52)	7	JFE	116	(0.50 1.14)	17
JAR	408	(1.78	4.01)	8	EAR	107	(0.47 1.05)	18
StuW	234	(1.02	2.30)	9	IJA	85	(0.37 0.84)	19
JAE	207	(0.90	2.03)	10	FR	81	(0.35 0.80)	20



**Panel B: Journal ranking in terms of references 1990 – 2005**

Journal*	No. of (% of total / % of journal)*** references and respective ranking			Journal*	No. of (% of total / % of journal)*** references and respective ranking		
zfbf /sbr	416 (3.80	7.53)	1	JoF	117 (1.07	2.12)	11
DB	332 (3.03	6.01)	2	EAR	107 (0.98	1.94)	12
WPg	331 (3.02	5.99)	3	StuW	102 (0.93	1.85)	13
JAR	307 (2.80	5.55)	4	JFE	101 (0.92	1.83)	14
BB	302 (2.76	5.46)	5	DBW	99 (0.90	1.79)	15
TAR	297 (2.71	5.37)	6	DStR	90 (0.82	1.63)	16
BFuP	242 (2.21	4.38)	7	IJA	76 (0.69	1.37)	17
JAЕ	200 (1.83	3.62)	8	AOS	72 (0.66	1.30)	18
ZfB	182 (1.66	3.29)	9	ABR	70 (0.64	1.27)	19
A:JPT	119 (1.09	2.15)	10	JoA	69 (0.63	1.25)	20

\* ABR – Accounting and Business Research, AG – Die Aktiengesellschaft, A:JPT – Auditing: A Journal of Practice & Theory, AOS – Accounting, Organizations and Society, BB – Betriebs-Berater, BFuP – Betriebswirtschaftliche Forschung und Praxis, CAR – Contemporary Accounting Research, DB – Der Betrieb, DBW – Die Betriebswirtschaft, DStR – Deutsches Steuerrecht, EAR – European Accounting Review, FR – Finanz-Rundschau, IJA – International Journal of Accounting, JAЕ – Journal of Accounting and Economics, JAR – Journal of Accounting Research, JFE – Journal of Financial Economics, JoA – Journal of Accountancy, JoF – Journal of Finance, sbr – Schmalenbach Business Review, StuW – Steuer und Wirtschaft, TAR – The Accounting Review, WPg – Die Wirtschaftsprüfung, ZfB – Zeitschrift für Betriebswirtschaft, zfbf – Zeitschrift für betriebswirtschaftliche Forschung (incl. former zfhf – Zeitschrift für handelswissenschaftliche Forschung).

\*\* 100% relates to the total of all references between 1950 and 2005 (22,971) and to all journal references respectively (10,175). The latter is composed of leading academic (4,781) and other journal articles (5,394).

\*\*\* 100% relates to the total of all references between 1990 and 2005 (10,954) and to all journal references respectively (5,528).

Table 5 shows that the analysis of citations by journal displays results that reflect the specific German situation. The zfbf/sbr is not only the leading publication outlet in general, but also the most often cited journal. This result is more decisive than in prior German citation studies that regularly identify two or more leading academic journals, always including the zfbf and the ZfB (Albrecht (1999); Gmür (2002); Schlinghoff and Backes-Gellner (2002); Schäffer, Binder, and Gmür (2006)). The analysis of citations again shows the strong position of specialized practitioner journals. Although Schäffer, Binder, and Gmür (2006) have already indicated the major role that these journals play in German management accounting research, the impact seems even stronger in financial accounting research. Two practitioner journals, Die Wirtschaftsprüfung (WPg) and Der Betrieb (DB), are among the top three journals, and four others (Betriebs-Berater (BB), Deutsches Steuerrecht (DStR), Die Aktiengesellschaft (AG), and Finanz-Rundschau (FR))

appear in the top 20. Moreover, German tax legislation has also had a significant impact on German accounting, and vice versa, through the authoritative principle (Maßgeblichkeitsprinzip) and the reverse authoritative principle (Umkehrmaßgeblichkeit)<sup>19</sup>. The link between taxation and financial (commercial law) accounting is reflected by three specialized tax-related journals, *Steuer und Wirtschaft* (StuW), *DStR* and *FR*, which are among the top 20 journals.

Regardless of the specifics for Germany, the results also indicate an international awareness of German financial accounting researchers. Influential non-German research articles from influential English-language journals (identified, for example, by Brown and Gardner (1985b); Brown (1996); Bonner et al. (2006); Meyer, Schäffer, and Gmür (2008)) are frequently cited. Accordingly, the 20 most frequently cited journals include a total of nine English-language periodicals (*The Accounting Review* (TAR), *Journal of Accounting Research* (JAR) and *Journal of Accounting and Economics* (JAE) even among the top ten). The high rankings of specialized finance journals (*Journal of Finance* (JoF), 12th, and *Journal of Financial Economics* (JFE), 17th) and the increasing number of references to both journals over time<sup>20</sup> reflect the increasing awareness of capital market based accounting research since the early 1970s (Beaver (1972); Williams (2003)). These results are increased when we focus, in *Table 5*, Panel B, exclusively on the period between 1990 and 2005. We identify 11 Anglo-American periodicals under the most frequently cited journals since 1990. However, the *zfbf/sbr* remains in the top position, followed by *DB* and *WPg*, thus indicating the comparatively strong position of practitioner journals in more recent times.

As other studies (e.g., Albrecht (1999); Schäffer, Binder, and Gmür (2006); Gmür (2007)) show, our citation analysis indicates a journal-specific self-reference phenomenon (not tabulated). Articles tend to cite articles from the same journal more often (e.g., *zfbf/sbr* 5.7% compared to 4.4% overall, *ZfB*: 5.1% compared to 2.7%, *DBW*: 1.9% compared to 0.8%, and *StuW*: 4.6% compared to 1%). Again, *zfbf/sbr* is in a distinguished position. Citations of *zfbf/sbr* are not only highest in its own articles, but also in papers published in the *ZfB* (5.4%). In *DBW* studies, *zfbf/sbr* citations rank fourth and in *StuW* eighth. Moreover, in contrast to other German journals *zfbf/sbr* articles contain both more references per study on average, and also a higher share of English references (not tabulated)<sup>21</sup>.

19 Macharzina and Langer (1998) stress that “the impact of the tax law largely determines accounting for individual company financial statements”. The reverse authoritative principle was abolished from German tax legislation in 2009 by the *Bilanzrechtsmodernisierungsgesetz* (BilMoG).

20 Although identified German financial accounting articles published before 1970 do not cite the *JoF*, there are 18 citations from articles published in the 1970s, 23 in the 1980s, 41 in the 1990s and 76 since 2000. *JFE* is cited 15 times in the articles published in the 1980s, 39 in the 1990s, and 62 since 2000.

21 We note that *StuW* has a specific position in this regard: English sources are obviously irrelevant, although studies in this journal contain references far above the average. This peculiarity is most likely driven by the specific character of *StuW* as a journal that specializes in taxation and tax-based accounting research that is deeply rooted in the national legislation.

### 4.3 SUBJECT AREAS

To gain further insights, we use the subject area classification that we applied in the identification procedure. Due to broad areas, possible overlaps, and the narrow focus on the title, we cannot provide an in-depth analysis of content or research questions. We also raise no questions related to method and epistemology investigated, for example, in publication studies about German management accounting research (Küpper (1993); Binder and Schäffer (2005); Wagenhofer (2006)) or in theoretical pieces about German financial accounting research (e.g., Busse von Colbe (1984; 1996); Fülber and Weller (2009)). However, we cautiously shed some light on the content of the articles and gain an impression of the fields of research.

Of all articles, 622 cover one single subject area, 104 deal with two, and seven papers study three areas (not tabulated). Most of the publications revolve around general questions of financial accounting; thus, 187 articles (25.5%) are classified accordingly. This subject area comprises, for example, the discussion on accounting theories (Bilanztheorien) or on different profit concepts (Gewinnbegriff). Financial statements and balance sheet items<sup>22</sup> are addressed in 134 articles, recognition and measurement topics by 120 studies.

The analysis of subject areas over time (also not tabulated) allows for only limited conclusions. The results imply that since the 1950s, general accounting topics, financial statements/balance sheet items, and questions of recognition and measurement have assumed major importance. Since the 1990s, German accounting researchers have increasingly addressed questions of accounting systems and standards, auditing, and more recently, disclosure. Research on accounting systems and standards may have been triggered by the endeavors to coordinate European accounting, the rise of international accounting, and intrusion of these two factors on German legislation and practice. This development applies to EU regulation and transformation in national law in the 1980s (Bilanzrichtliniengesetz 1985) and IAS/IFRS-accounting since the 1990s.

We also investigate the journal-specific subject area classification but find only minor variation. The dominant position of general accounting topics applies to most of the periodicals we analyze. Journal-specific idiosyncrasies are especially notable in the *StuW*. Because it is a specialized tax journal, *StuW* focuses primarily on tax accounting issues.

### 4.4 INFLUENTIAL RESEARCHERS AND INSTITUTIONS

Our analysis of authorship in *Table 6*, Panel A (left side: Ranking in terms of publications) indicates that the top 20 contributing German accounting researchers published a total of 28.0% (205 articles) of all articles identified. The top five authors include Busse von Colbe (1st) with 18 leading academic journal publications, Schneider (2nd) with

<sup>22</sup> Articles classified as financial statements/balance sheet items include, for example, research on segmental reporting (Segmentberichterstattung), on consolidated financial statements (Konzernrechnungslegung) or on specific balance sheet positions such as intangibles.

17, Mattessich (3rd) with 13 and Ballwieser, Haller, and von Wysocki (4th) each with 12 articles. Single and co-authorship are not distinguished. We note that Schneider (2nd) is a professor whose major sphere of activity is taxation, and, in contrast to the other top five authors, he is not a specialized financial accounting researcher. Due to our identification mechanism, we only capture his financial accounting articles, which represent one subset of his publication record in leading journals. Also interesting is the fact that two of the top 20 researchers, Mattessich (3rd) and Holzer (7th), have been affiliated for most of their academic careers with Anglo-American institutions. We suppose that this result indicates to a lesser extent the internationalization of German accounting research. It is brought about by the Anglo-American impact on their research, especially their stronger journal orientation, their focus on more international accounting topics, and their greater experience with English-language publications.

As mentioned earlier, the journal-oriented analysis does not capture all the leading journal articles of the respective researchers. This lacuna is due to our identification procedure and its financial accounting focus. It does not use weighting factors to distinguish between “A” and “B” journals and does not comprehensively display the research productivity of the German accounting researchers that we have identified<sup>23</sup>. Moreover, younger researchers are naturally discriminated by an overview of the entire sample period. Surprisingly enough, Haller, who is ranked among the top five authors, can be considered as a relatively young researcher (born 1961, doctorate degree 1989, *venia legendi* 1996).

The results change for more recent time periods and show the more current protagonists of German financial accounting research since 1990 (Panel B). Following Haller are Wagenhofer (2nd), Quick (3rd), Leuz and Ruhnke, who are tied for 4th. We also find other younger representatives of the German accounting community, such as Ewert, Oestreicher, Pellens, d’Arcy, Glaum, and Kahle. We note that since 2000 Leuz has been affiliated with two leading U.S. business schools, the University of Pennsylvania’s Wharton School, and the University of Chicago’s Booth School.

Next, we conduct citation analysis and broaden our attempt to identify the protagonists of German financial accounting research during the entire period between 1950 and 2005. All references, and therefore all cited authors, are captured. *Table 6*, Panel A (right side: Ranking in terms of references) provides an overview of the 20 most frequently cited authors. Schneider is in leading position, followed by Moxter (2nd) and Busse von Colbe (3rd). All of these authors are already well known through the author ranking in terms of publications. Again, the pivotal point is the comparatively low impact of non-German research and the almost self-centered focus in that time. Not even a single non-German accounting researcher can be detected among the top 20. Presumably, this result is affected by the legalistic orientation of German financial accounting with its traditionally strong ties to German codified law (e.g., Küpper and Mattessich (2005);

23 “A low frequency in appearances does not imply that a researcher is not prolific in publishing elsewhere. Some authors prefer book publishing, practitioner journals, and journals of other academic disciplines” (Heck, Jensen, and Cooley (1990)).

**Table 6: Ranking of researchers**

Panel A: Ranking of researchers 1950 - 2005											
Ranking in terms of publications (authors with the most leading journal articles)			Ranking in terms of references (most frequently cited authors)								
Researcher	No. (%) of publications* and respective ranking	Researcher	No. (%) of publications* and respective ranking	Researcher	No. (%) of references and respective ranking						
Busse v. Colbe	18 (2.46)	1	Coenenberg	9 (1.23)	10	Schneider, D.	337 (1.47)	1	Leffson	132 (0.57)	11
Schneider, D.	17 (2.32)	2	Lück	9 (1.23)	10	Moxter	327 (1.42)	2	Kosiol	131 (0.57)	12
Mattessich	13 (1.77)	3	Wagenhofer	9 (1.23)	10	Busse v. Colbe	253 (1.10)	3	Kütting	129 (0.56)	13
Ballwieser	12 (1.64)	4	Buchner	8 (1.09)	14	Schmalenbach	212 (0.92)	4	Schmaltz	122 (0.53)	14
Haller	12 (1.64)	4	Gebhardt	8 (1.09)	14	Coenenberg	192 (0.84)	5	Adler	118 (0.51)	15
v. Wysocki	12 (1.64)	4	Herzig	8 (1.09)	14	Ballwieser	171 (0.74)	6	Düring	118 (0.51)	15
Holzer	10 (1.36)	7	Moxter	8 (1.09)	14	Baetge	164 (0.71)	7	Hax, K.	118 (0.51)	15
Ordelheide	10 (1.36)	7	Quick	8 (1.09)	14	Ordelheide	163 (0.71)	8	Döllerer	108 (0.47)	18
Thoms**	10 (1.36)	7	Siegel	8 (1.09)	14	Schildbach	146 (0.64)	9	Siegel	106 (0.46)	19
Chmielewicz	9 (1.23)	10	Baetge***	7 (0.95)	20	v. Wysocki	135 (0.59)	10	Albach	98 (0.43)	20
Panel B: Ranking of researchers 1990 - 2005											
Ranking in terms of publications (authors with the most leading journal articles)			Ranking in terms of references (most frequently cited authors)								
Researcher	No. (%) of publications**** and respective ranking	Researcher	No. (%) of publications**** and respective ranking	Researcher	No. (%) of references**** and respective ranking						
Haller	11 (5.37)	1	Pellens	5 (2.44)	9	Schneider, D.	167 (1.52)	1	Ewert	73 (0.67)	11
Wagenhofer	9 (4.39)	2	Busse v. Colbe	4 (1.95)	12	Moxter	162 (1.48)	2	Beisse	69 (0.63)	12
Quick	8 (3.90)	3	d'Arco	4 (1.95)	12	Ballwieser	149 (1.36)	3	Wagenhofer	69 (0.63)	13
Leuz	7 (3.41)	4	Glauum	4 (1.95)	12	Busse v. Colbe	128 (1.17)	4	Pellens	66 (0.60)	14
Ruhnke	7 (3.41)	4	Herzig	4 (1.95)	12	Ordelheide	118 (1.08)	5	Watts	65 (0.59)	15
Ballwieser	6 (2.93)	6	Kahle	4 (1.95)	12	Baetge	118 (1.08)	5	Herzig	56 (0.51)	16
Ewert	6 (2.93)	6	Küpper	4 (1.95)	12	Coenenberg	101 (0.92)	7	Zimmerman	56 (0.51)	16
Schneider	6 (2.93)	6	Mattessich	4 (1.95)	12	Schildbach	92 (0.84)	8	Küpper	55 (0.50)	18
Oestreich	5 (2.44)	9	Möller	4 (1.95)	12	Kütting	85 (0.78)	9	Wagner	54 (0.49)	19
Ordelheide	5 (2.44)	9	Auer*****	3 (1.46)	20	Haller	82 (0.75)	10	Pfaff	48 (0.44)	20

\* 100% relates to all identified articles (733) and all references respectively (22,971).

\*\* Thoms is the only non-VfIB member among the top ranked researchers by publication between 1950 and 2005.

\*\*\* Ewert, Kosiol, Leuz, Möller, and Ruhnke also rank 20th with seven articles.

\*\*\*\* 100% relates to the identified articles between 1990 and 2005 (205) and all references respectively (10,954).

\*\*\*\*\* Another 10 researcher also rank 20th with three articles (Böcking, Euler, Gebhardt, Jacobs, Lück, Marten, Moxter, Schultze, Wagner, Wolz).

Busse von Colbe (1996); Busse von Colbe (1984))<sup>24</sup>. Therefore, not surprisingly, Adler (15th), Düring (15th) and Schmaltz (14th) are among the most frequently cited authors, primarily due to their heavily cited legal commentary on German accounting and auditing legislation (Kommentar der Rechnungslegung und Prüfung).

The overview of the most frequently cited authors also indicates the continuing relevance of German accounting research conducted during the first half of the 20th century. Schmalenbach, still ranked among the top five, is a prominent protagonist of that early era. But again, younger researchers are eliminated by the procedure and by the time period specified. The youngest researcher among the 20 most frequently cited is Ballwieser (born 1948, doctorate degree 1977, *venia legendi* 1981). Furthermore, the results corroborate the identification process of German accounting researchers that we use here, as only six authors not included in the author sample of German accounting researchers appear among the top 20 cited authors<sup>25</sup>. However, this result might also be attributable to the propensity of authors to self cite. To control for this tendency, we re-analyze the citation data adjusted for self citations. We find only minor changes<sup>26</sup>.

Panel B shows that the ranking changes substantially when we concentrate exclusively on the time after 1990. The more recent citation patterns indicate a much more international and, to a lesser extent, self-centered research focus. Although Schneider and Moxter remain in leading positions, younger representatives of the German accounting research community, such as Ewert, Wagenhofer, and Pellens, now appear. Moreover, non-German researchers emerge. We note especially Watts (15th) and Zimmerman (16th), the two main protagonist of the Positive Accounting Theory (e.g., Whittington (1987), Williams (1989), and Sterling (1990)). Although most of their citations refer to one source, their book about positive accounting theory (Watts and Zimmerman (1986)), the dominance of this source (identified by Brown (1996) and Meyer, Schäffer, and Gmür (2008) among others) may indicate the rise of positive and more empirical research approaches also in German financial accounting research in the last two decades.

Next, we widen the scope of our analysis to look for social networks in the German research community. As suggested by Otte and Rousseau (2002), bibliometric methods can be applied to social network analysis. Therefore, we first consider possible relationships between published articles in specific journals and the relevant journal editors. If we can substantiate for Germany the editor-related influence on the “own” journals, either

24 This legalistic orientation still applies to the current situation, although European regulation requires IFRS accounting for consolidated accounts of publicly traded companies. Accounting regulations for single financial statements and for consolidated financial statements of non-publicly traded companies that do not voluntarily adopt IFRS are codified in national legislation. Eierle (2005) provides a comprehensive overview of legislative actions affecting German accounting regulations.

25 These six authors are Schmalenbach, Küting, K. Hax, Döllerer, Adler, and Düring (Schmaltz was member of the VHB accounting committee). Our assumption that the VHB dominance has increased in more recent periods is supported by the rankings conducted since 1990, and only two remaining exceptions (Beisse, Küting) in the respective German research community.

26 Only one single researcher drops from (Siegel) and moves up (Beisse) to the 20 most frequently cited authors. The 14 researchers, who are among the 20 most frequently cited authors (unadjusted) and who are included in the author sample of German accounting researchers, show a mean self-citation rate of 12.8% (not tabulated).

by authorship and/or citation (Smith and Dombrowski (1998); Hopwood (2002); or more generally by Johnson and Oppenheim (2007) for the correlation of similar forms of social connectivity and citation rates), then we may be able to identify these bibliometric relationships that indicate social networks.

**Table 7: Journal-oriented rankings of researchers**

Panel A: Ranking in terms of publications**								
zfbf/sbr			ZfB		DBW			
Researcher	No. (%) of publications and respective ranking		Researcher	No. (%) of publications and respective ranking	Researcher	No. (%) of publications and respective ranking		
Busse v. Colbe	11 (4.33)	1	Thoms	9 (3.77)	1	Chmielewicz	5 (7.58)	1
Schneider, D.	10 (3.94)	2	Buchner	6 (2.51)	2	Ballwieser	3 (4.55)	2
v. Wysocwki	9 (3.54)	3	Albach	4 (1.67)	3	Coenberg	3 (4.55)	2
Ballwieser	7 (2.76)	4	Busse v. Colbe	4 (1.67)	3	Dellmann	3 (4.55)	2
Ordelheide	6 (2.36)	5	Kosiol	4 (1.67)	3	Lück*	3 (4.55)	2
Panel B: Ranking in terms of references***								
zfbf/sbr			ZfB		DBW			
Researcher	No. (%) of references and respective ranking		Researcher	No. (%) of references and respective ranking	Researcher	No. (%) of references and respective ranking		
Moxter	192 (1.99)	1	Kosiol	74 (1.41)	1	Coenberg	36 (1.41)	1
Schneider, D.	175 (1.81)	2	Schmalenbach	74 (1.41)	1	Küting	33 (1.29)	2
Busse v. Colbe	139 (1.44)	3	Moxter	64 (1.22)	3	v. Wysocki	31 (1.21)	3
Schmalenbach	111 (1.15)	4	Schneider, D.	57 (1.08)	4	Busse v. Colbe	30 (1.17)	4
Ballwieser	108 (1.12)	5	Albach	48 (0.91)	5	Ordelheide	25 (0.98)	5

\* Quick and Ruhnke also have three articles (2<sup>nd</sup>).

\*\* 100% relates to all identified articles in the respective three journals: zfbf/sbr 254, ZfB 239 and DBW 66.

\*\*\* 100% relates to all references in the respective three journals: zfbf/sbr (incl. zfhf) 9,672, ZfB 5,256 and DBW 2,560.

We center our journal-oriented analysis on three leading German journals (zfbf/sbr, ZfB and DBW). In *Table 7* we document the journal-oriented ranking of researchers in terms of publications and references. Four current editors of zfbf/sbr are among this journal's top five authors<sup>27</sup>. The top five authors of DBW include two of its editors, Chmielewicz and Coenberg, who have been among the editors of the DBW since it resumed publication in 1977. A single editor of ZfB, Albach, who has been editing ZfB since 1978, is among its top five authors. The reasons for such relationships vary. On the one hand, the relationship between editorship and the number of published articles in a journal might be driven by the fact that the top authors are far more likely to be asked to serve as an editor. On the other hand, articles authored by an editor might be more likely accepted for publica-

<sup>27</sup> Busse von Colbe, Schneider, and von Wysocki have been editors of the zfbf since 1970. Ballwieser has been editing the zfbf since 1993 (and sbr since its inception in 2000). We have allocated Schmalenbach (Panel B), who launched the zfhf in 1906, to the editor group although he was not editor after the relaunch 1949.



tion in the respective journal. Researchers who act as editors of a specific journal are not only more likely to publish in the respective journals, but, as *Table 7* shows, are also more frequently referred to in citations (see also Smith and Dombrowski (1998)). However, our results do not support the notion of exclusive journal-oriented groups within the German financial accounting research community. Editors and top-five authors from one journal also contribute in terms of publications and references to the other two journals and even achieve top ranking positions there (e.g., Ballwieser, Busse von Colbe, Schneider, Ordelheide, or Moxter).

Institutional factors may also contribute to establishing another kind of social network within the German research community. In line with prior studies (e.g., Williams and Rodgers (1995); Lee and Williams (1999); Williams (2003); Chan, Chen, and Cheng (2007)), we assume that degree-granting institutions affect the grouping by forming different “schools”. Therefore, we identify 65 doctorate-granting institutions (universities, faculties) where the relevant 392 German accounting researchers received their doctorate degree.

**Table 8: Ranking of degree-granting institutions**

Degree-granting Institution	No. (%) of researchers* and respective ranking	No. (%) of articles* and respective ranking	Degree-granting Institution	No. (%) of researchers* and respective ranking	No. (%) of articles* and respective ranking
Cologne	34 (8.67) 1	59 (11.43) 2	TU Berlin	10 (2.55) 10	10 (1.94) 15
Frankfurt	31 (7.91) 2	80 (15.50) 1	Göttingen	9 (2.30) 12	3 (0.58) 29
Münster	25 (6.38) 3	33 (6.40) 3	Tübingen	9 (2.30) 12	18 (3.49) 11
LMU Munich	23 (5.87) 4	22 (4.26) 7	Aachen	8 (2.04) 14	6 (1.16) 23
Mannheim	17 (4.34) 5	24 (4.65) 5	Augsburg	7 (1.79) 15	24 (4.65) 5
FU Berlin	15 (3.83) 6	18 (3.49) 11	Bochum	7 (1.79) 15	29 (5.62) 4
Saarbrücken	13 (3.32) 7	19 (3.68) 10	Giessen	6 (1.53) 17	14 (2.71) 13
WU Vienna	13 (3.32) 7	20 (3.88) 9	St. Gallen	6 (1.53) 17	1 (0.19) 38
Hamburg	13 (3.32) 7	7 (1.36) 19	Würzburg	6 (1.53) 17	6 (1.16) 23
Erlangen-Nürnberg	10 (2.55) 10	12 (2.33) 14	Regensburg**	5 (1.28) 20	5 (0.97) 25

\* 100% relates to all identified (VHB-) researchers (392) and to their identified articles respectively (516).

\*\* With respect to researchers TU Munich also granted doctorate degrees to 5 German accounting researchers. With respect to articles Mainz ranks 8th (21 articles/4.07%), Bonn 15th (10 articles/1.94%), Vienna 17th (9 articles/1.74%), Passau 18th (8 articles/1.55%), Duisburg and Freiburg 19th (7 articles/1.36%).

We note that in our identification process we focus on all researchers identified by the VHB criterion. Therefore, because they often have a non-academic background, we exclude any non-VHB members captured in our parallel analysis of the 1950s and 1960s. We were unable to determine the degree-granting institution of 37 German accounting researchers.

Further, because the University of Nürnberg was integrated into the University of Erlangen in 1961, the University of Erlangen, the University of Nürnberg, and the successor institution, the University of Erlangen-Nürnberg are regarded as a single university.

*Table 8* shows that the top five institutions (Cologne, Frankfurt, Münster, LMU Munich, and Mannheim) account for 33.2% of all researchers. These faculties have a long tradition in accounting research and, documented by other bibliometric studies (Macharzina, Wolf, and Oesterle (1993), Macharzina, Wolf, and Rohn (2004)), in German business research in general. They also represent the biggest German faculties in business administration. Therefore, their dominant absolute position is not surprising. The picture is slightly different when we use the number of financial accounting articles in leading academic journals and identify the degree-granting institution of the respective authors. Frankfurt, Cologne, and Münster remain among the leading institutions even though in altered order. In addition, other, comparatively smaller faculties such as Bochum, Augsburg, and Mainz begin to appear and outshine larger faculties<sup>28</sup>. Their position in the ranking does not suggest that there is a stronger focus on articles in academic journals in those faculties. The degree-granting orientation of the ranking is more indicative of the educational ability of those faculties to breed publication-oriented researchers, regardless of the researchers' later affiliations. Moreover, the comparatively small absolute numbers of the respective publications attributed to the leading positions in this ranking show the strong influence of a few individual researchers who dominate the research output of their degree-granting institutions. For example, in Bochum and Mainz this phenomenon of academic accounting "schools" is strongly connected to Busse von Colbe, who supervised, among others, Ordelheide, Gebhardt, Perlitz, and Pellens, all of whom graduated from Bochum; and with Münstermann, who supervised, among others, Busse von Colbe, Sieben, Coenberg, and Haase, who graduated from Mainz and Cologne. Similarly, the position of Augsburg is mainly driven by Coenberg, who supervised a remarkable amount of financial accounting researchers in Augsburg, such as Haller, Marten, Möller, and Schultze.

## 5 SUMMARY, LIMITATIONS, AND CONCLUSION

Accounting research has been an integral part of German business administration and has helped to establish its scientific nature (Gutenberg (1957); Busse von Colbe (1992); Busse von Colbe (1996)). It also significantly influenced accounting research outside Germany in the first half of the 20th century. But after World War II this international "lead-

28 Although faculty size does not necessarily determine the size of the financial accounting group, the groups in Mainz, Augsburg, and Bochum were quite ordinary. E.g., in Bochum in the late 1960s, 70s, 80s, and early 90s, there was only one distinct financial accounting researcher, W. Busse von Colbe (after 1993: H. Streim). D. Schneider (taxation, till 2000) and K. Chmielewicz (theory of business administration, until his death in 1996) contributed to financial accounting research but neither formally belonged to the financial accounting group nor did either of them contribute exclusively to that field. Because of the focus on the degree-granting institution, it was also not the publication record of these three men (none of whom had graduated from Bochum) that drove the high ranking position of Bochum. This position is mainly driven by the fact that primarily Busse von Colbe supervised a remarkable amount of later financial accounting researchers who contributed in aggregate with their articles to their degree-granting institution, Bochum. The Mainz position is driven mainly by the publication record of Busse von Colbe himself, because his degree-granting institution is the University of Mainz.

ership in accounting thought” (Küpper and Mattessich (2005)) disappeared. Although German accounting research was still very active and produced innumerable publications, little is actually known, especially from the outside, about the characteristics of German accounting research in the second half of the 20th century. This lacuna holds particularly true for German financial accounting. To close this gap and to reveal some facets of German financial accounting research in this period, we analyze German financial accounting publications and their references published from 1950 to 2005.

To identify German financial accounting research we first extract German-speaking accounting researchers, which we determine by their membership in the VHB’s committee for accounting (VHB – Kommission Rechnungswesen). In a second step, we compile their academic journal publications in the field of financial accounting between 1950 and 2005. Because of insufficient data supply and a low rate of VHB organization in the 1950s and 1960s, we use additional financial accounting publications for these two early decades. In total, we identify 733 articles (adjusted to 594 due to a minimum reference threshold) in 22 leading academic journals comprising a total of 22,971 references (38.67 per article). Publication and citation patterns show that the number of academic journal articles has increased steadily over time, that English-language papers authored by German researchers have become far more frequent since the 1980s, and that the citation patterns develop towards more references per article and to more references per article in English. Moreover, we observe a general trend towards longer papers and multi-authorship, especially in the 1990s. These trends could point to changes in research methods towards more empirical-archival studies, which frequently rely on the complementary skills, methods, and time resources of several authors.

The *zfbf* (former *zfhf*, and including *sbr* as the English-language version of *zfbf* launched in 2000) qualifies as both the major publication outlet and the most cited journal. *zfbf*’s ranking as the most cited journal holds true for the total sample period and for the years since 1990 as well. Additional citation analysis shows that German practitioners journals were among the most heavily cited journals (WPg 2nd, DB 3rd). Since World War II, German financial accounting research has been characterized by the fact that a large amount of cited research has been published in books and practitioners journals. Furthermore, the citation patterns of English-language papers by German accounting researchers and, therefore, publications in non-German journals, differ significantly from the German-language papers, which refer more often to other leading academic journal articles or to working papers. While German-language research frequently refers to specific German commentaries and handbooks and to legalistic/jurisdictional sources, such references are rare or nearly nonexistent in many English-language publications. German researchers who publish in English appear to adopt a more Anglo-American research and citation style.

We also investigate the subject areas of the German financial accounting articles. Over the time period that we analyze, general accounting topics dominate German financial accounting research in our sample of academic journals, followed by more specific questions of recognition, measurement, and disclosure. Since the 1980s and 1990s, German accounting researchers have increasingly addressed questions of accounting systems and

standards and auditing. We attribute the rise of these questions to the intrusion of European and international accounting rules in German legislation and practice during that period.

Identifying the most influential researchers of German accounting research shows the predominance of German (language) researchers. Accordingly, our results indicate a low impact of non-German research and an almost self-centered focus. However, we find an increasing international awareness if we examine more recent times. Non-German researchers appear in the top 20 of the citation rankings and the majority of the journals cited have been Anglo-American.

To identify social networks in the German research community we find a journal-oriented author concentration which indicates an editor bias. However, our results do not support the notion of exclusive journal-oriented groups in the German financial accounting research community. Publication and citation analyses also provide some insights on the most influential institutions and academic “schools” of German accounting research. With respect to the identified German researchers, we find that the biggest German faculties in business administration (especially Cologne, Frankfurt, Münster, LMU Munich, and Mannheim) rank highest in terms of doctorate degree-granting institutions. We obtain a slightly different picture when we conflate the ranking of granting institutions with the top-ranked publications. The faculties of Cologne, Frankfurt, and Münster still remain, although in a different order, among the top institutions. However, other, smaller faculties such as Bochum or Augsburg appear in the rankings. These smaller institutions demonstrate the educational ability of some distinguished academics in those faculties (e.g., Busse von Colbe, Coenenberg) to supervise future publication-oriented researchers.

Although we provide an overview on some facets of German accounting research between 1950 and 2005, our paper is far from being exhaustive and has some material limitations. If German accounting research during that period is deeply rooted in books, practitioner journals, commentaries, and specific handbooks, the validity of publication analysis of academic journal articles will suffer. Comparisons between German and journal-oriented Anglo-American accounting research are especially distorted. However, the citation analysis compensates for this limitation because all forms of German accounting research are reflected in the references.

Another limitation is caused by the selection criteria. We focus primarily on the VHB’s committee for accounting membership (VHB – Kommission Rechnungswesen), which covers a major part, but not all, of the relevant academic community. The early decades were particularly characterized by a lower rate of VHB organization and a lack of information about the research orientation of VHB members. To account for this deficiency, we conduct a parallel analysis for the first two decades (1950s, 1960s) that is based on the affiliation criterion (institutions in Germany, Austria, and Switzerland) and which captures additional articles and authors in that time. Against this background, we accept a structural break in our time series between the 1960s and 1970s and provide the pure VHB-oriented results for the 1950s and 1960s to enable unbiased comparison based on the same identification procedure.

Another limitation rests on the debatable information value of journal rankings in general and the VHB-Jourqual in particular. We use the latter to identify a certain minimum level of quality (at least B ranking) without further differentiation or weighting of the respective journals. We note that publication and citation analysis measures “influence rather than excellence, and that the correlation between influence and quality is uncertain” (Beed and Beed (1996)). Moreover, utilizing a current journal ranking (VHB-Jourqual 2004) for identifying research publications spanning more than five prior decades is open to question. The search for alternative methods for reliably identifying relevant publications may indicate possible future approaches to fully understand German research in that era, e.g., by subsequent citation rates (e.g., van Campenhout and van Caneghem (2010); Brown (1996)) or by a survey of researchers on their views of German accounting research (e.g., Lowe and Locke (2005)).

Other questions that remain unanswered revolve around content, methods, and methodological aspects of German accounting research, their development over time, and their classification in an international context, e.g., by an abstract- or content-based analysis of articles (e.g., Fülbier and Sellhorn (2006); Oler, Oler, and Skausen (2009); Raffournier and Schatt (2010)). Further research will be necessary to identify more facets of social and other networks in the German financial accounting research community from publications, e.g., by comprehensively investigating the social connection between citers to those they cite (Johnson and Oppenheim (2007)) and/or co-citation analyses.

We have touched on the future development of German accounting research by analyzing the last period of time between 1990 and 2005. Our results support the notion that globalization of accounting research has already questioned German peculiarities and influenced the structure of German financial accounting research in more recent times, and will most likely continue to do so. Future publication and citation analyses might here provide further evidence.

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