



## **Accounting Research And Accounting Practice: An Uneasy Relationship**

Eno L. Inanga and WM. Bruce Schneider\*  
*Greenwich University, London.*

### **ABSTRACT**

There is anecdotal evidence to support the assertion that accounting research, or what is alleged to be research, is of little or no value to the practice of accounting, nor to the development of accounting as an academic discipline. The problem is not that efforts have not been made to conduct research, but rather there is a fundamental flaw in the accounting research process itself.

Tricker suggest that suggest that the research process can be understood using two models. One is a set of relationships which "feed-forward". That is, a known theory suggest a hypothesis, which is tested trough a accumulation of data. If the hypothesis is proven to be true, it is added to the body of knowledge, enhancing the legitimacy of the underlying theory. The second model is intended to provide "feed-back". That is, the real world is observed and a model of it is proposed, based on known theory. Data is collected and processed, and a model is refined. When the model is consistent with the real world and known theory, it is added to the body of knowledge. These research models depend on the existence of known theory for their usefulness.

The central problem of accounting research is that there is no known theory to use as a reference for creating hypotheses or models to be empirically research. The absence of theory can be seen in education, practices, and the research literature itself. Practitioners, for example, because of their training and lack of experience with and interest in research tend not to look to research findings to meet their professional needs. Accounting researchers, on the other hand, have created what appears to be a highly advanced research context, which, in effect, in an environment, dominated by sophisticated methodology, rather than theory. The research basically emulates the hard sciences, which makes its pursuit academically acceptable, but it lacks substance. This explains the uneasy relationship between accounting research and accounting practice.

**JEL Classification : M41;**

**Keywords:** Accounting Practice, Accounting Education, GAAP, Tricker's Research Model

---

\* The material presented by the authors does not necessarily portray the viewpoint of the editors and the management of the Institute of Business and Technology (BIZTEK) as well as thanks to the organizers of the Conference on Accounting and Finance in Transition held in Greenwich University, London.

\* Corresponding author email :

## **1. INTRODUCTION**

This paper is based on two fundamental premises. The first premise is that most, if not all, of what purports to be research in accounting is, in fact, a trivial pursuit. We will demonstrate that accounting is not a science and that the mere use of scientific methodologies does not change the basic facts. We also contend that the reported research is nothing more than correlation analysis, rather than the testing of theories or related hypotheses. Moreover, the “decision usefulness theory of accounting” (Staubus 2000) is no more than a rationalisation of observed activities. We contend that the assumptions inherent in “decision usefulness theory” have not been researched. Thus, without appropriate theory, accounting cannot be the subject of scientific research because, as a discipline, it lacks a basic requirement of a science. Researchers are thus unable to raise and research fundamental, non-trivial questions.

The second basic premise is that accounting research is not significantly linked to accounting practice because the issues and methods of interest to academic researchers are of little or no consequence to practitioners and, moreover, are not focused on fundamental questions. Additionally, it is important to note that in the university, at the undergraduate level, the “educational” process and curricula are based on a strong bias towards training for practice, rather than on education and the development of an appreciation for research. At the graduate level, the bias is towards pseudo-scientific research constrained by Generally Accepted Accounting Principles (GAAP), resulting in the failure to discover new knowledge and develop relevant products to serve user needs. Several highly respected members of the academic community have addressed these issues (Albrecht and Sacks 2000, Demski 2001, Selto and Widener 2001).

## **2. ORGANISATION OF PAPER**

In the light of the two basic premises above, the rest of the paper has been structured to develop our argument and recommendations in five main sections based on a discussion of:

- The Nature of Research
- Theory – An Essential Ingredient of Research
- The Historic Role of Research in Accounting Education and Practice
- The Causes for the Failure of Accounting Research
- Accounting Research: Re-conceptualisation and Re-modeling

In the section titled *Accounting Research: Re-conceptualisation and Re-modeling*, we will suggest two intended to provoke thinking about new directions and possibilities for research and its relationship with accounting education, training and practice. The paper then concludes with a brief reflection on the current situation and the importance of research as a social activity.

## **3. THE NATURE OF RESEARCH**

In the context of this paper, we may define research as a theory-based systematic investigation of, or enquiry into, a specific phenomenon either for the purpose of discovering new facts or critical exposition of existing knowledge. The findings that

emerge are normally expected to contribute to knowledge and bring about positive social change.

Ijiri (1975) identified three necessary attributes of research findings that contribute to knowledge in this manner. The first is novelty, to distinguish creative activities essential to research from production activities. For example, while production activities can be subjected to a routine, creative activities are full of uncertainties, and often require unconventional approaches. Thus, research that replicates an experiment would be valued much less than the original experiment, because the outcome of such replication tends to add much less to knowledge than the original experiment. Furthermore, the repeated experiment could follow previously programmed procedures by the original effort. For example, since the first successful human heart transplant by the late Christian Barnard, a South African surgeon, subsequent successful similar transplant have not received as much publicity as the first. The same is true of the successful cloning of a sheep, Dollym, by two Scottish scientists. As Polanyi (1964) observed, no solution of a problem can be accredited as a discovery, if it is achieved by a procedure following definite rules.

But while the cloning of Dolly is novel, and constitutes a significant research breakthrough, the vast majority of research is, at best a marginal increment to existing knowledge. Just how large an increment needs to be in order to constitute a worthwhile and novel piece of research is debatable. Thus, two highly skilled researchers may take very different views of the same research due to either personal biases or current research climate.

Defensibility, either through logical proofs or empirical verifications, is another attribute of research findings. Defensibility according to Ijiri facilitates reproduction and verification of findings by other researchers. Reproduction and verification make research findings usable by anyone, independently of the original researchers. Research findings are thus distinguished from personal opinions, which cannot be evaluated without references to those expressing the opinions.

However, in reality, lack of data access, proprietary rights to database, and lack of incentive may make replication difficult, especially as few publishers may be interested in publishing replications. Furthermore, many researchers invest valuable hours and much money in developing their extensive database in a given area. Such researchers may see the database as a comparative advantage and be very reluctant to share their database with others. In accounting, a more fundamental problem is the inability of subsequent researchers to develop new accounting data comparable to that in the original study. Therefore it may be impossible to corroborate in independently the findings and conclusions originally reported. There are, therefore, constraints to defensibility of research findings on the basis of their potential for reproduction by other researchers for independent verification.

The third characteristic of research findings, according to Ijiri, its dissemination. Research findings that are not or cannot be disseminated cannot contribute to knowledge. No matter the important the discovery, it will not benefit knowledge if the researcher locks up the findings or systematically prevented from reporting them. Both the researchers and those who control the reporting context must be adequately motivated to make the results known as widely as possible. However, there could be problems where researchers and the “gate keepers” of research dissemination have different perception about the importance of research findings (Demski 2001).

#### **4. THEORY –AN ESSENTIAL INGREDIENT OF RESEARCH**

The above characteristic of research findings suggest that research is a theory –based social activity in which observed phenomena are tested with reference to known theory, or a theory is tested with reference to observed phenomena. The results, whatever they are, contribute to knowledge. The contribution, however, may or may not be significant. We assert, therefore, that theory is an essential element in research. It provides “a set of interrelated constructs, definitions, and propositions, that present a systematic view of phenomena by specifying relations among variables with the purpose of explaining and predicting the phenomena. Kerlinger (1964:1). The purpose of research as a theory-based social activity is to create and document knowledge of relationship and phenomena. Research is then designed and intended to use theory as a reference for the investigation.

In general there are two types of theory- positive and normative.

- Positive theories attempt to describe real world situations as they are.

Research based on positive theories involves empirical observations of the relevant phenomena from which a problem is defined. Data relevant to the problem are then collected and hypotheses formulated and tested by independent process. If the theory that results in an accurate representation (description) of the empirical phenomena, such a theory can be used for predictive purpose. Induction follows empirical observations and takes the form: “if event Y takes place, then the outcome will be Z”. the greater the number of empirical observations, the better supported the related induction will be.

- A normative theory is a goal-oriented theory that represents real-world situations, not as they are, but as they should be. It is prescriptive rather than descriptive theory that explains, and set out, principles of what ought to be. Normative theories are characterised by goal assumptions and deductions.

Each type of theory has its strength and weakness. Positive theories can take various descriptive forms. One form is the verification of the accuracy of its representation through logical deduction. Another is appraisal of the extent to which observations agree with deductions. Checking the size and selection method of observations and the induction process itself is yet another form of defense of descriptive theory.

A major strength of positive theory is predictive ability. It also enables hypotheses to be tested against observations. But if the observations are biased there can be prediction errors. Furthermore, if the observation are partial or relate to generalise conclusion from findings.

The strength of normative theories is their feasibility, and ability to demonstrate convincingly, that a specific event should take place if a specified goal is to be attained. The inductive process of descriptive theory and the deductive process of normative theory are interrelated in that the deductive process may also be applied to empirical observations, if reality is to be changed to a more preferred as indicated by the assumed goals (Ijiri 1975). As also argued by Ijiri, a normative theory need not be counter-empirical. This is particularly so where the existing system is optional. The outcomes, under such circumstances would be a convergence of both positive and normative theories.

The goals on which normative theory is based need not to be actual. The researcher need not accept or subscribe to these goals. But since the goals may depend on personal judgments, the researcher may find it difficult to exclude personal biases. Attainment or lack detailed operational specification.

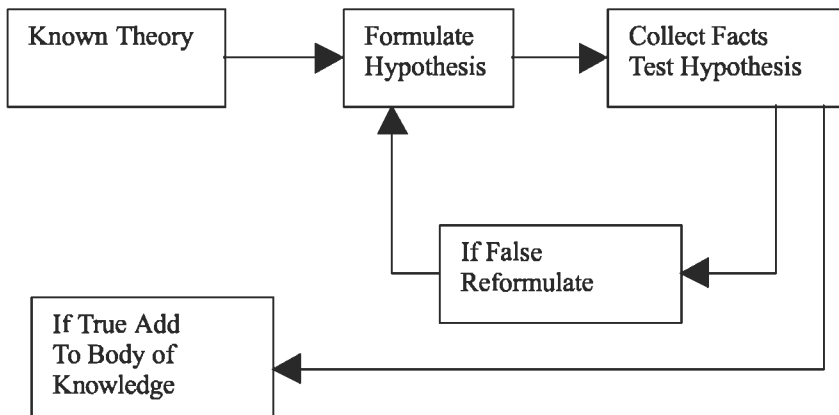
Some qualitative researchers in the social sciences have advocated a “ground theory” as an alternative to positive and normative theories. Miles and Huberman (1991), and Patton (1990), are among such advocates, Straus and Corbin (1990:23) defines grounded theory as one “derived from the study of the phenomenon it represents”. It thus has some elements similar to positive theory. However, instead of starting with a theory and then proving it empirically, grounded theory-based research “begins with and area of study and what is relevant to that area is allowed to emerge” (ibid). Conceptually, grounded theory can be viewed, as a technique for building theory based on observed social science phenomenon, using data would still be a matter of personal judgment and subject to personal bias. The existing “decision usefulness” theory of accounting which underlies the Concept Statement of the Financial Accounting Standard’s Board (FASB) is a classis example (see Staubus 2000).

Indeed since the 1960s, accounting research has increasingly moved away from normative (e.g. Chambers, 1996) to positive (e.g. Watts and Zimmerman, 1986). This development, according to Watts and Zimmerman (1986), has been attribute to the introduction of large-scale empirical studies that use economics and finance concepts to analyse the behaviour of capital markets, and which led to the development of efficient market hypotheses with significant impact on accounting research. Subsequent studies, such as Ball and Brown (1968) produced findings that were inconsistent with the prescription of normative accounting researchers.

## 5. TRICKER’S RESEARCH MODELS

Two accounting research models presumably intended to achieve the purpose if research as a theory-based social activity, were suggested by Tricker (1978). The first shown in figure 1, is the classical model that Tricker labels a “feed forward” model.

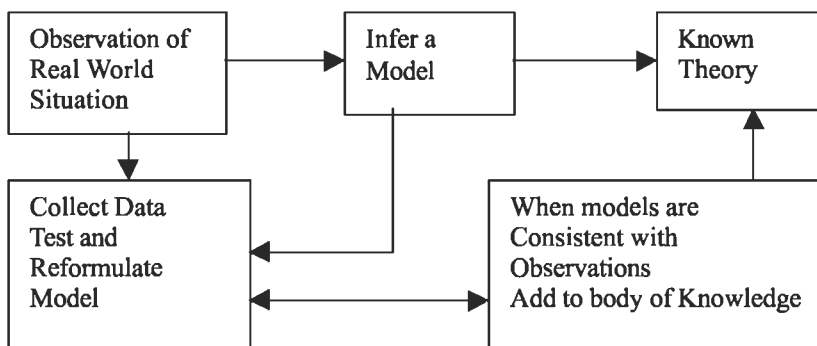
**Figure 1: Tricker’s Classical Research Model**



Starting from known theory, the researcher formulates a new hypothesis and collects facts to test, the hypothesis. If the hypothesis is false, the researcher reformulates the hypothesis. If the hypothesis is proven to be true, then a new theory emerges and adds to the body of knowledge.

The second approach is one that adopts a feedback as different from the “feed-forward process of the classical method in Figure 1. This approach is shown in Figure 2.

**Figure 2: Tricker’s Feedback model of Accounting Research**



In the above approach, the researcher observes the real world situation and, in the light of known theory, formulates a model, checking the generality of its application. If the model is found consistent with observations of the real world, the findings of the research are added to the body of knowledge.

## **6. PROBLEMS WITH THEORY IN ACCOUNTING RESEARCH**

The role of theory as an essential ingredient of any research was discussed earlier in this section. Its centrality in accounting research is further underlined in Tricker’s models, both based on “known theory”, shown in Figure 1 and 2. the basic problem in applying either of the models in practice is identifying what is “known theory” in accounting.

Traditionally, what constitutes accounting theory has evolved over time as a set of rules and principles, strictly utilitarian in function, aimed at guiding accountants in financial reporting, i.e., GAPP. The principles are essentially pragmatic, describing the structure of accounting practice, having evolved from observations of existing practice. The essential ingredients of a “good theory” are conspicuously absent in these principles. The ingredients, as agreed by Ryan, Scapens and Theoblad (2002), are predictive ability, internal and external consistency, ability to generate implications that can be refuted by empirical testing, and provision of focus to guide and direct research into empirical problems. Thus, the “decision usefulness theory” is unsupported, untested, and untestable known theory. It is a grounded theory.

The consequence of lack of “known theory” in accounting satisfying these requirements has been the emergence of fragmentary accounting theories that tend to preclude the development of conceptual standards by which existing and proposed practices can be evaluated. The practical outcome has been the existence of numerous alternative practices, according to Caplan (1972), each capable of producing substantially different results, all of which are considered acceptable. In the absence of

basic accounting theory, practising accountants are incapable of evaluating effectively what they are doing and providing innovation in response to new demands as they arise, e.g. accounting for the effects of changing price-levels and “intellectual capital”.

Another result of lack of basic accounting theory is what Ijiri (1975) has described as “accounting theorising”, which exists in the form of dogmas. Dogmas, according to him, are authoritative statements of opinion that must be accepted on faith. Such statements are, however, useful for the accounting profession by enabling respected leaders to exercise influence over accounting practice, thereby providing a unifying and coherent force in the profession. Ijiri goes on to argue that dogmas will remain effective so long as members of the profession are willing to accept and be bound by respected opinions. But because such statements are sometimes internally inconsistent, they lack logical and convincing framework required for empirical testing and verification. Positive and normative accountings theories are needed to facilitate an evaluation for existing and proposed accounting practices as well as identify appropriate areas of further research.

In spite of these problems, much efforts has been directed, in recent years, towards developing a general theory, a conceptual framework (Macve, 1981), a statement of principles by the UK Accounting Standards Board (ASB), which has attracted criticism by Baxter (1999), and Bromwich (2001), to guide accounting practice. Different categories of empirical research have also been carried out. These include predictive ability research examining the relevance to historical financial reports to investors in making estimates of the future. Research has also been carried out on the behaviour of users of accounting information, using concepts from the behavioural sciences. Efficient markets research, using concepts in economics and finance, has also been carried out examining how accounting information affects share price movements in the stock market.

Empirical research, which is concerned with the facts, is often preferred to *a priori research* that tends to focus mostly on abstraction. In 1992/93 the American Accounting Association (AAA) set up a committee to locate and publish the types of research methodologies and data bases currently being used by international accounting scholars and explain the methodologies, databases, as well as research questions, for which they are appropriate (American Accounting Association, 1993)

The committee’s report, which was publish in July 1993, advised against any impression, such as implied in Tricker’s models, that the research process is a strictly linear “scientific” sequence of hypothesis statements, data collection, data analysis, refutation or support of initial hypothesis, followed by a research report and discussion of findings. They argue that rather than take this straightforward route, the researcher requiring multiple interventions and difficult questions, often takes a more intricate approach. The committee suggested that the potential researcher could ask known and experienced researchers to describe how they conducted the research that resulted in publication. However, this approach leads to more of the same type of research that is replication not innovation.

## **7. THE HISTORIC ROLE OF RESEARCH IN ACCOUNTING EDUCATION AND PRACTICE**

Both positive and normative theories discussed earlier should provide a framework for evaluating current and developing new accounting practice. Accounting practice emerging from such a framework would have been tested for logic, consistency and relevance. But evidence seems to show that this is hardly ever so in accounting practice.

The picture painted by sterling (1973) in his characterisation of the relationship between accounting education and accounting practice, also cited by Arnold (1989), accounts for the generally observed, historic lack of linkage among them and is reflected in Figure 3.

**Figure 3: Historic Relationship Between Education and Practice**

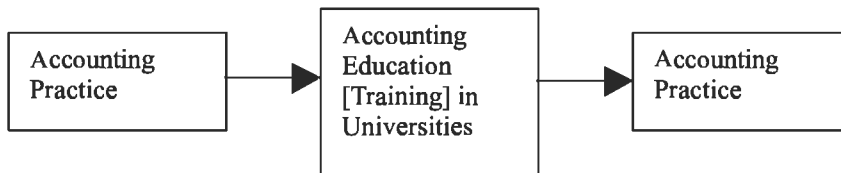


Figure 3 reflects the tendency for accounting educators in universities to concentrate on teaching what is practised, so that students can go out to practise what has been taught. Essentially the employers of recent graduates are more concerned about how quickly the recruit will be billable, rather than how well educated he/she is. The education / training paradigm is this driven by the requirement of employers, not the education need of student (Demski 2001). Faculty research, if any, plays virtually no role in the students' educational process. Indeed, very limited accounting research is currently going on in many universities due to lack of funds and instruction oriented toward the requirements of practice. Moreover, issues related to evaluation of research productivity of accounting academics have tended to limit research output (Brinn, Jones and Pudlebury 2001, Bublitz and Kee 1984, Parker, Guthrie and Gray 1997).

In recognition of the above problems Albrecht and Sacks (2000) have highlighted the need for greater focus of university accounting on generic skills such as problem solving and communication, and the broadening of the accounting curricula. These ideas were initiated by Accounting Education Change Commission (Sundem 1999). More recently the American Institute of Certified Public Accountants (AICPA) Vision project identified five similar competencies that should be developed in the university education process (AICPA 2000). As explained in the Final Report (AICPA 2001), these competences are aimed at providing value and results to the user through a unique combination of human skills, knowledge and technology. Interestingly, none of these suggest an emphasis on technical accounting training, nor accounting research. Demski (2001) attributes the present practice-orientation of accounting curriculum to four contributory factors.

- Employers whose focus is on immediacy and tend to expect universities to produce students with well-equipped skills for immediate employment as professionals.
- Disseminators and accreditation bodies who respond to employers' demand for technical content.
- Publishers who publish only books developed with the aid of focus groups and which are compilations of technical pronouncements.
- Academics who, instead of giving intellectual tend to ask employers what should be included in the curriculum.

There is also the misleading tendency to assess the quality of the university curriculum in accounting by how many, and how well, students are able to pass the professional accounting examinations with minimum attempts. The contents of accounting syllabuses in many universities are more often than not influenced by the technical content of qualifying examinations of professional accounting bodies. It



appears that academic has lost sight of the fact that the professional relevance of a degree curriculum replicates current professional techniques and practices which form the base for the profession's qualifying examinations.

Thus, the initial bias in both the UK and the American accounting education had been toward practice rather than research. In the eyes of many American accounting academicians and university administrators, even today, the single most critical measure of the quality of accounting education is student success in the uniform CPA examinations. It is a statistic, which is easy so obtain, but it measures technical training in accounting not education.

On his experiences and articulated clerk in UK firm of chartered accountants, professor Tricker (1978:5), at the first Arthur Young Lecture he delivered at the University of Glasgow in Scotland confessed:

I cannot remember accounting research ever being mentioned. In five years of practical and very valuable experiences, not once did I recognise the subject as one with frontiers and with unknowns waiting to be explored. On the contrary, I was trained in a methodology which I saw as precise, accurate, quantitative, and relevant, a way to capturing the transaction of the real world truthfully. I was dealing with facts: and we knew what we were doing.

The personal work experience of one of the authors of this paper in a US-based "big 5" accounting firms is consistent with Tricker's experience. Several recent informal interviews conducted by one of the authors with current employees of large forms and sole practitioners in the US reveal that academic research in accounting is of little or no value or interest to practitioners. This view was further confirmed at the 2001 Annual Conference of the Accounting Association of Australia and New Zealand (AAANZ) in Auckland, New Zealand. The keynote speaker, Frank Selto (from the University of Colorado at Boulding), reported results from a very recent study into the link between accounting research and practice. He found significant gaps between what is currently of interest to practitioners (as reported in professional journal articles) and what is being researched by accounting academics (as reported in academic journal articles).

Tricker's experience and recent anecdotal evidence show that research was not considered relevant to the training of UK chartered accountants in Tricker's time, not to individuals in practice today both in the US and other countries of Western Europe.

Sir Bryan Carsberg<sup>1</sup>, who began his academic career as a Lecturer in Accounting at the London School of Economics and Political Science (LSE) in 1964, shares Tricker's views. Reflecting on his experience, in a foreword to Cooke and Nobes (1997), Sir Carsberg (1997:xi) observed that "... an enormous and regrettable gulf [exists] between accountants in practice and accountants in academe. Academe had little influence on practice. And there were differences of opinion about how to change that situation". Such differences of opinion existed, even among distinguished academics, before Sir Bryan Carsberg, as far back as 1948. (Parker 1995, Zeff 1997).

---

<sup>1</sup> Sir Bryan Carsberg had the distinction of being the first member of the Institute of Chartered Accountants in England and Wales to be appointed to a top British University without a first degree. He subsequently obtained with distinction the M.Sc. (Economics) degree of the University of London in 1967, Specialising in Accounting and Finance. Appointed Professor of Accounting and Business Finance in the University of Manchester in 1969, he returned to the LSE in 1981 to occupy the Arthur Andersen Chair of Accounting. He was knighted by the Queen in January 1989 and is currently the Secretary-General of the International Accounting Standards Committee.

Serious academic study of accounting in UK universities started only at the beginning of the twentieth century, Hopwood and Bromwich (1988), Parker (1995), and Zeff (1997). The first full time Chair in Accounting in any British University was established in 1947 at the LSE and to which Professor W.T. Baxter was appointed. Before then, he was at the University of Cape Town in South Africa. Now an Emeritus Professor of Accounting at the School, he retired in 1973.

Until Professor Baxter's appointment, accounting played only a subsidiary role at the LSE as a supporting subject in the B.Com. degree programme (Dev<sup>2</sup> 1980). Similar views were held at Oxford and Cambridge Universities, the two oldest British Universities. At Cambridge, accounting was taught only as a part of the mathematics tripos, until the nineteenth century (Ryan, Scapens and Theobald, 2002). At Oxford, accounting was "regarded as a pedestrian, commercial, workaday subject, quite unworthy of being admitted to those dignified hails..." (Boulding, 1977:86). A Chair in Finance and Accounting has since been established at Cambridge by the Institute of Chartered Accountants in England and Wales (ICAEW) in the Department of Applied Economics to which Professor Geoffrey Whittington, a former student of Professor Baxter at the LSE, and a Chartered Accountant, was appointed as the first occupant.

Academic study of accounting that subsequently followed led to a growing demand for accounting courses and the establishment of accounting departments in several U.K. universities. Increasing demand for scholarly publications in accounting, according to Hopwood and Bromwich (1988), led to the launch in 1970, of a research journal, *Accounting and Business Research*, by ICAEW. Subsequently, sterling (1973) proposed a normative model, including research that is illustrated in Figure 4.

**Figure 4. Sterling's Normative Relationship Among Accounting Research, Education and Practice**

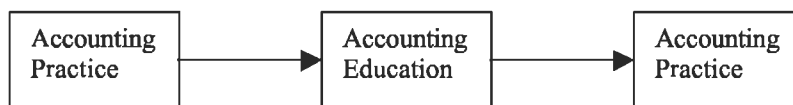


Figure 4 demonstrate that the content of education in accounting should be determined by the research findings, which students, after their education, should implement in practice. The model, however, tends to omit a possible feed back loop between accounting research and accounting practice. Such a feedback could have demonstrated how changes in accounting practice could influence accounting research and education in order to induce changes in accounting practice.

The history of the development of accounting education and research in the US is similar to Sterling's suggested models. Over time, graduate and Ph.D. accounting programmes in the US were established to provide a more traditional academic teaching cadre and presumably provide the man / woman power to do research. However, the public accounting profession's need for technically trained university graduates was not de-emphasised. In the UK, Ph.D. programmes in accounting are a recent development.

---

<sup>2</sup> Professor Susun Dev, an alumna of the LSE, was appointed in 1979 to the Chair, which had become vacant after Professor Baxter's retirement. Now an Emeritus Professor of Accounting at the School, Professor Dev was the first woman to be appointed Professor of Accounting in British University.

There is no doubt that substantial human and financial investments have been made in academic research in both the US and the UK. Yet, as the researchers of the Jenkins' Committee (1994) found, financial accounting statements in their current form and with their current content do not serve their intended audience well. This is a conclusion supported by the research reported by Epstein and Birchard (1999). One can only conclude that most of what has been done in the name of accounting research has not resulted in better practice. The discussion below will suggest and develop reasons for this apparent failure.

### **8. THE CAUSES FOR THE FAILURE OF ACCOUNTING RESEARCH**

The essence of research in any discipline is discovery. Without discovery, no research can make significant contribution to knowledge. Bernal (1971) sees the essential feature of a strategy of discovery in terms of determining the sequence of choice of problems to solve.

Some scholars perceive accounting as lacking the paradigm necessary to qualify it as a normal science, a perception that has implications for the choice of research method. Sterling (1972) has argued that research method cannot be chosen independently of the research question. The research question itself, in his view, cannot be formulated unless the researcher believes that the answer to the question is likely to be important. But this cannot be known until after the research has been performed. A researcher should therefore select his/her research question based on his/her perceived importance of the answer to the question that, in turn, will influence the choice of research method.

Sterling goes on to suggest that if the researcher's focus is the behavioural effects of accounting, he/she will select research methods of the behavioural sciences. Methods of research in mathematical sciences will be appropriate if the researcher is interested in exploring the mathematical dimensions of accounting. He concludes that a meaningful appraisal of the appropriateness of research method cannot be carried out without reference to the research question that is to be investigated. But, on the other hand, it may be argued that many research questions can be answered through a combination of behavioural and mathematical approaches. For example, if we were interested in discovering what factors drive firms to adopt a certain accounting treatment, we can study this by combining qualitative methods (such as case study) with empirical approaches (such as stock price impacts and balance sheet characteristics).

#### **Exhibit 1 –Goldratt's Taxonomy of Research Context Development: Research Contexts**

Stage	Example	Contribution	Accounting
Classification Schemes	Astrology	Development of Categories	Pacioli Model Vocabulary-e.g, assests, Liabilities, etc. Operational process-rules of algebra
Correlation oriented research	Astrology	Test internal and external relationships implicit in the classification Schemes	Virtually all published academic research
Science	Astronomy	Development and test of theories and hypothesis	GAAP (Normative)

Another perspective on the importance of a proper understanding of the context within which research is conducted is described by Goldratt (1990). Goldratt suggests the taxonomy presented in Exhibit 1, extended to include accounting.

Exhibit 1 provides support for the earlier assertion that accounting may lack a paradigm (e.g., researchable theories and hypotheses), necessary to be considered a science. Goldratt suggest that a science is the last stage in a process of research context development. This sequencing is important to our discussion of the significance of accounting research. If accounting is not a science, and we contend that it is not, then any research done is limited to correlation analysis. In the case of accounting research there is a high probability that a high degree of auto-correlation exists because accounting data or derivatives of it, e.g. stock prices, are used recursively.

Furthermore, there is a major risk in conducting research using normative theories, which assume that the desired state is known, but which is not tested and evaluated with research. Research conducted in this context is self-serving and self-fulfilling i.e., trivial. Most, if not all, financial accounting research is tied to GAAP, which is itself, based on the assumption that general purpose, historical cost financial statements are informative and useful, because they are reliable. This assumption is based on a wrong premise of linearity (Demski 2001) and stability of measurement that simply are not part of the real world. Zohar and Marshall (1994) and Zohar (1990, 1997) suggest that the real world is a “quantum world” characterised by ever-changing relationships and measurements. The dynamics of quantum mechanics that are the basis of Zohar’s position were set out earlier by Hawkinds (1988).

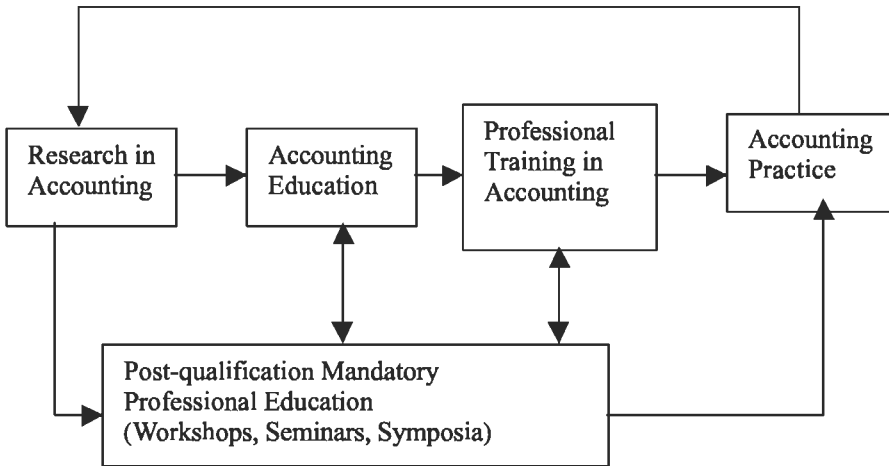
Professional accounting literature is full of criticism of current financial accounting and reporting practices. Probably the most notable, authoritative, and frequently cited research findings were presented in the report of the Jenkins’ Committee (1994). Essentially it was reported that most sophisticated users do not use the traditional financial statements, as they are prepared to evaluate companies for investment or lending purpose, not for the prediction of future flows. These findings would seem to indicate that the desired goals of GAAP are not being obtained (Schneider). The implication is that research based on GAAP is not advancing the achievement of the normative theories which suggest that the research is trivial and/or the theories are faulty or both.

Research in accounting should aim at improving accounting practice in the same way, as the goal of medical research is to improve medical practice. The many breakthroughs today in medical practice would have been impossible without medical research. In medicine, there is a symbiotic relationship among medical research, medical education, and medical practice. The picture is different in accounting. The relationship is disjointed, with wide gaps between accounting education, accounting research, and accounting practice. Writers such as Carsberg (1997), Baxter (1988), Mautz (1978), Lee (1989), Hopwood (1988), Wallace (1997) Selto (2001) and Demski (2001) are among those who have commented on this gap and advance reason for its existence.

Accounting researchers, usually academics, and practitioners have divergent interest. The perception is that most researchers are unconcerned with the immediate and short-term needs of the practitioners. While accounting practitioners are interested in short-term research results capable of providing an immediate solution to professional problems, the focus of researchers is on academic career advancement and a professional reputation built on a publication record. Status is determined by the quality of the journals in which their research findings are published, not necessarily by the quality of the problem or findings. A comprehensive model is proposed in Figure 5 that

provides for a more complex set of linkages between and among accounting research, education, training and practice (see also Arnold 1986, 1989). In the next section we will suggest and institutional context in which to make this model operational.

**Figure 5. Proposed Linkage Between and Among Research, Education, Training and Practice**



Symptomatic of the failure of both the normative theory and related research is the observable response of the accounting establishment and of users. Each has responded differently. The Accounting Standard Bodies have reacted to the apparent communication problem by piling on more standards and disclosure requirement. This is the “standards overload” problem that is generally recognised by practitioners. Users have sought alternative sources of information to move from “reliable trivial” to “relevant substantive”, meaningful and timely information that relates to the decision at hand. Thus, users have developed their own research paradigm based on *ad hoc* information needs, rather than abstract prescriptions and normative, positive or grounded theories.

It must also be remembered that some research findings, judge to be unacceptable by the reviewers of submissions and editor of “high quality” journals, may be so because it poses a challenge or threat to long held position and values, i.e., the normative theory of GAAP. This was exemplified in a special edition (Vol.12 No.2, April 2001) of *Critical Perspective on Accounting* with various commentaries that were quite critical of both the present structure of the AAA and how editors of some accounting journals review manuscripts submitted to them for publication. A previous study by Lee (1999) had also examined the membership of AAA Executive Committee and concluded that it had been dominated, throughout its history, by academics from three major US universities.

Findings of a recent study by Brinn, Jones and pendlebury (2001) similarly explained why many UK accounting and finance academics, in general, do not publish in top US journals. The reasons given by the academics included “not being in the US

network, working with non-US data, the existence of gatekeepers and constraints of US methodology". In support of constraints imposed by methodology, evidence shows that most of these journals, with very few exceptions, do not accept research papers using field research. Consequently, but not surprisingly, too few accounting researchers choose to employ field-based designs in their research, a point empirically proved by Young and Selto (1993).

Not infrequently, the gestation period of some of these research efforts is too long and results are so slow in coming that accounting practitioners tend to consider them irrelevant to their short-term problem solving needs. For example, it is generally conceded that major topics identified by the Financial Accounting Standards Board (FASB) for research and pronouncement development frequently require seven years or more to bear fruit. The pains taking due process of the FASB led to the establishment of the Emerging Issues Task Force (EITF) to respond to practitioner needs on a timely basis. As Baxter (1988:3) puts it:

Practical men give plenty of reasons for ignoring, and sometimes disparaging academic research. Thus, they find its subject matter remote. They shy away from its statistical tables, and mathematics. They regard its jargon as pretentious. They feel that the writers are excessively concerned to demonstrate familiarity with "the literature"; the many –bracketed reference in the text are irritants, as is the end loading of full reference. Research should be written up with brevity and clarity. It should possess clarity...

And, it could be added, ... and should be delivered in a timely, accessible manner.

Thus there is a lack of effective communication between accounting researchers and accounting practitioners. The situation is further exacerbated by the reality that relatively few people do accounting, while vast numbers of people with diverse backgrounds, interest, and objectives use the work product of the accounting practitioners, (i.e., financial statements).

In essence, there is a double communication problem. Researchers and practitioners do not communicate with each other, and the financial statements resulting from the practitioners' effort do not communicate with users who do not effectively communicate their needs to either practitioners or academics. This situation exists because user needs are not known by practitioners, i.e., they are unrehearsed, because the needs are assumed to be known. The environment is further exacerbated by various accounting regulatory agencies and the occasional brute force intrusion of political establishment to politicise accounting standards (Solomons 1983).

It is the disjointed nature of the interest and time frames that creates the gap between researchers, practitioners, and users. These gaps would not exist if accounting practice were to be broadly conceptualized as the primary objective of the study of accounting. Such board conceptualisation would view accounting practice not just in terms of how accounting information is prepared, but also in terms of the reaction of managers, investors, creditors and other stakeholders to whom such information is presented. Also include as part of accounting practice would be financial management, taxation, auditing and other industrial systems involved in the preparation and consumption of accounting information.

The researchers having this conception of accounting practice in mind would select and expand his/her research questions and methods with a view to controlling the empirical system within which accounting is practised so as to improve its behaviour and make it more relevant to society. The researchers would also develop appropriate

models of the system to move it towards intended goals. Inherent limitations in the current research environment are the assumption of traditional, normative GAAP, which effectively constrain both the evaluation of posited goals and the conceptualisation of alternatives. In the next section we will suggest a different model for contemplating research related to accounting.

The discussion above leads to a number of conclusion. One of these is that accounting research tied to a normative theory expressed in terms of GAAP inhibits, rather than encourage substantive, meaningful research. Therefore, the context within which accounting is perceived, as a discipline worthy of research must be re-conceptualised as a means of communicating messages. Furthermore, the institutional context within which research is conducted, and related to education and practice, must be understood and operationalised in a new way. Because of its algebraic structure and legalistic preoccupation, both in terms of what and how to report, accounting has imposed intellectual straightjacket on researchers. In the past, the result had been research of limited usefulness, except for the academic objective of establishing a publications record. Today, the world of traditional researchers is imploding. These conclusion call for a re-conceptualisation of accounting, which we discuss in the next section.

## 9. ACCOUNTING RESEARCH: A RE-CONCEPTUALISATION AND RE-MODELLING

Joel Demski (2001) in his Presidential Address to the AAA Annual Meeting in Atlanta, Georgia, observed that accounting research has linearised everything. That is, most research methodologies are based on correlation analysis and the models have great rigidity limiting both the questions and the subsequent analysis. Essentially, this implies that accounting research is disconnected from the dynamic non-linear non-objective real world. It must be recognized that accounting is a social science discipline used to describe economics activity. The evidence, on the other hand suggests that accounting research does not relate well to social context. Figure 6 presents this situation graphically. It suggests the complex of forces operating on the accounting researcher and the clear need for effective communication.

The space outside the circles represents the real social world. If it could be modelled mathematically, it would consist of an infinite number of interdependent, interrelated, highly correlated multivariate functions. The implication is that everything that happens in the real world is related to everything else. This is the “quantum world view” suggested by Zohar and Marshall (1994) and Zohar (1990,1997).

The two outermost concentric circles identify a set of broad categories of variables and functions drawn from the “quantum world” that typically are associated with economics and business decision making and which motivate the real needs of accounting information users: the social, political, economic, regulatory and technological forces. The information and data needs of users are simultaneously generic and situation specific. They, in large part, arise in and *ad hoc* basis at a point in current time driven by information requirements and priorities unique to the decision at hand and the decision maker. This is the context of the real world: dynamic and kaleidoscopic, subject to both evolutionary and revolutionary change.

**Figure 6: The Macro-environment and Forces Impacting Researchers**

The inner two circles suggest the “pin wheel” of classic accounting research. It is bound and constrained by GAAP, accounting, regulations and law, which determine the set of variables contained within accounting and the way those variables are defined and quantified. Accounting assume, through the “decision-usefulness theory of accounting” that the needs of users are known to them and are generic. This gives rise to the idea that management-prepared general purpose historical cost (modified to increase assumed relevance) financial statements are useful. They may be, but they are static and legalistic, rather than dynamic and flexible. The research models built in this context are recursive and limited to correlation analysis. The boundary between the “pin wheel” and the real world – based circles is almost impermeable. It reflects the disconnection between the accounting domain and its related research activities and the real needs of accounting information and data users.

Thus the real world environment described by the space outside the circle, and the two outside concentric circles, above is very unlike the assumed environment, in the “pinwheel” circles. Inevitably, classic accounting fails to relate to and have a significant impact on meeting the real needs of accounting data and information users, because the “world view” of the accounting researcher is dramatically different from that of the user. Not only is the usefulness and relevance of the output being questioned, but also the legitimacy of accounting as an academic discipline itself, especially in the US, is also being challenged. Perhaps the lack of intellectual content has caused the “best and brightest” to pursue other disciplines. There is a wide spread decline in the size of university accounting programmes in the US. Albrecht and Sack (2000), in their Report, have estimated the decline at more than 20 per cent. They suggest factors responsible for this decline as decrease in staff salary levels, increasing alternative career levels, and misinformation and lack of information about accounting and accounting careers.



Professional accounting bodies on both sides of the Atlantic have expressed concern about the future of the profession in the 21<sup>st</sup> century. It has been said that the challenges facing the profession, according in the US, for example, if left unchecked, could lead to the extinction of the profession. According to the AICPA, the extinction could be similar to that which consumed buggy- whip manufacturers or, more recently, typewriter repairers (Tilberg 1999). In the UK, ICAEW is concerned about what the market for Chartered Accountants is likely to be in 2005, and whether the profession will develop at sufficient speed to meet market demands (Bruce 1998).

There are also threats to the profession. The mechanism and the processing are now being taken over by computers, as raw accounting data becomes more easily accessible to users through data bases and communication protocols, as e-business alters the way businesses interact, and as the needs of the market place shift from valuing producers of accounting information (i.e. practitioners), to the users of it in decision making contexts.

**Figure 7: Possible research Disciplines Related to Accounting**

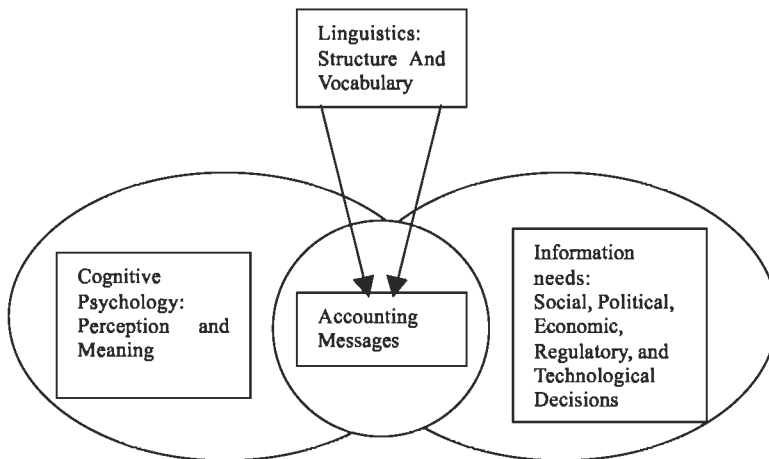
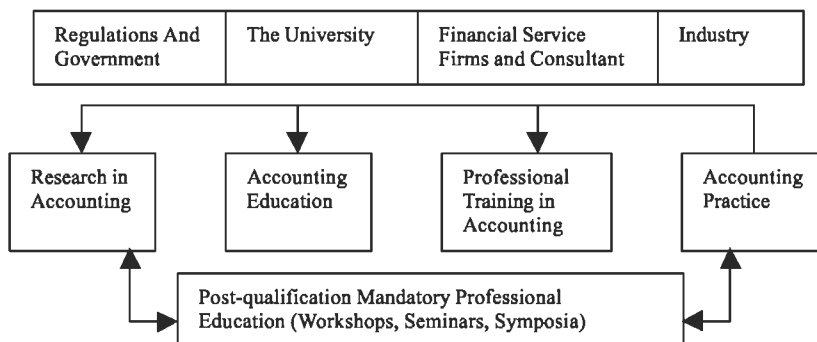


Figure 7 suggests that other disciplines provide means to enrich and improve the relevance of accounting research. They are part of real world domains that are open to and seek evidence of change, and the dynamics (i.e. the motivation) for and implications of change. They are all related to developing and understanding of what information is and how it is communicated, processed and used by the people in the social context on a real time, dynamic basis. The three lobes and others could graphically be set in another Venn diagram with the space outside the lobes defined as the “real world” as in Figure 6. the significant differences are that accounting is understood as a way of structuring and communicating messages without the normative assumptions of GAAP and the self-serving – defined constraints of classic accounting research.

Figure 8 incorporates Figure 5 to make it operational in relevant institutional contexts. The linkages in the figure clarify the relationships between the elements presented and the enabling social environment that supports, and makes demands on accounting research, education and practice.

**Figure 8: the Institutional Context of Accounting Research, Education, and Practice**



## 10. SUMMARY AND CONCLUSION

This paper is based on two fundamental premises. The first is that accounting research is largely trivial, because of absence of referent theory for testing and evaluating accounting theorising. The second premise arises from the first. This is that accounting research is inadequately related to practitioner and user needs because of lack of meaningful and constructive communication among researchers, practitioners and users.

The attributes of research suggested by Ijiri (1975) are not found in accounting research because of the lack of theory. There is a lack of novelty in research methods and questions; the conclusion and findings are not readily subjected to independent replication and, therefore, may not be defensible; and academic researchers may be prevented from sharing controversial findings as a result of self-protective tendencies of senior academics, some journals editors and reviewers.

We have suggested that the “decision usefulness” theory of accounting, on which *GAPP* is based, is a grounded theory. It is normative, based on a set of assumptions that have not been tested. Accounting, as a discipline, is not a science and as suggested by Goldratt, research result in this context are limited to correlation analyses. The use of sophisticated scientific research methodologies does not change the basic situation.

Research is an important aspect of the development of both education and practice. Accounting “education” in most universities has been committed to training new accountants for practice. The more intellectual dimensions related to questioning and the evaluation of interest to academic researchers have been constrained by the domain of GAAP and the biases of research publication editors and reviewers. These questions have tended not to be the question of practitioners or users. We suggest that the university training process had inculcated in practitioners and users a disrespect, and disregard, for intellectually motivated accounting research. Thus there are different agendas being served, or not being served, by accounting research.

We suggest that accounting be understood as a communication activity required by society and the real world. Accounting researchers, therefore, must look outside of the self-defined “decision usefulness” theory to other disciplines/ sciences for referent theories related to communications, economics, philosophy, and quantum mechanics, for example. Researchers need to ask practitioners and users questions about issues of importance to them. The academic community must infuse the accounting

curriculum with the intellectual demands and benefits of research as a socially desirable objective.

The “gate keepers” of dissemination vehicles e.g., editors, reviewers and theses supervisors, must be more tolerant and supportive of research that is novel and controversial.

Research must be considered in a complex environment of many constituencies with diverse interest and information needs. Each has its unique cognitive sets and world contexts. Accounting researcher; if it is to be relevant, must be tailored to specific context, but not excluding appropriate interrelationships and interdependencies. Perhaps in time, some general theory of accounting as a communication process, capable of servicing a wide range of user needs with generally accepted and understood constructs and models will emerge. The theory will relate to communication of information to diverse users. It will be sufficiently robust to provide a basis for global communication of economic events that have occurred and will be linked logically to the decision of today and tomorrow.

## **REFERENCES**

- ALBRECHT, W. STEVE AND ROBERT J. SACK (2000) Accounting Education: Charting the Course Through a Perilous Future, American Accounting Association Accounting Education Series.
- AMERICAN ACCOUNTING ASSOCIATION (1993) Report on Research Methodologies in International Accounting. The International Accounting Section.
- AMERICAN ACCOUNTING ASSOCIATION FINANCIAL ACCOUNTING STANDARDS COMMITTEE (1999) Shaping IASC for the future. Accounting Horizons, 13 (December) pp. 443-456.
- AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANT, the Special Committee on Financial Reporting (the Jenkins’ Committee) (1994) Improving Business Reporting – A Customer Focus, New York, NY, AICPA.
- AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANT (2000),. The AICPA Vision Project: Role of the CPA, New York, NY, AICPA.
- AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANT (2001),. CPA Vision Project 2011 and Beyond, New York, NY, AICPA.
- ANYA, A.O. (1982) SCIENCE DEVELOPMENT AND THE FUTURE: The Nigerian Case, University of Nigeria Press.
- ARNOLD, J. (1986) THE EDUCATION OF ACCOUNTANTS AT THE CROSSROADS, The Fourth Armitage and Norton Lecture, Huddersfield Polytechnic.
- ARNOLD, J. (1989) ACCOUNTING EDUCATION AND RESEARCH: the Role of Universities in G. Macdonald and B.A. Rutherford (eds.) Accountants, Accounting and Accountability, London, Van Nostrand Reinhold (International and the Institute of Chartered Accountants in England and Wales).
- BALL, R., P. BROWN (1968) “An Empirical Evaluation of Accounting Income Numbers”, Journal of Accounting Research, 6, (Autumn) pp. 159-178.
- BAXTER, W.T. (1988), Accounting Research – Academic Trends versus Practical Needs Edinburgh: The Institute of Chartered Accountants of Scotland.
- BAXTER, W.T. (1999), “The ASB on Principles”, Accountancy, October, pp. 75-76
- BERNAL, J.D. (1972), Science in History Volume 1, The Emergence of Science, the MIT Press.
- BLAUG, MARK (1997), The Methodology of Economics, Cambridge University Press.

- BOULDING, K.E. (1997) Economics and Accounting: The Uncongenial Twins, in W.T. Baxter and S. Davidson (eds.) *Studies in Accounting*, the Institute of Chartered Accountants in England and Wales.
- BRINN, TONY, MICHEAL JONES, MAURICE PENDLEBURY, (1996) "UK Accountants' Perception of Research Journal Quality", *Accounting and Business Research*, Vol. 26 No. 3, Summer, pp. 265-277.
- BRINN, TONY, MICHAEL JONES, MAURICE PERNDLEBURY (2001), "why do UK Accounting and Finance Academics not publish in Top US Journals?", the *British Accounting Review*, Vol.33 No.2, June.
- BRUCE, R. (1998) 'Traditional Route is Key to the Future', *The Times*, February 26, London.
- BROMWICH M. (2001) "Angles and Trolls: The ASB's Statements of Principles for Financial Reporting", *The British Accounting Review*, Vol. 33, No.1, March 2001, pp.47-72.
- BUBLITZ, B., R. KEE (1984), "Measures of Research Productivity", *Issues in Accounting Education*, pp39-60.
- CHAMBERS, R.J., *Accounting Evaluation and Economic Behaviour*, Englewood Cliffs, NJ: Prentice Hall.
- COOKE, T., C. NOBES (1997) (ed.) *The Festschrift in Honour of R.H. Parker*, London, Routledge.
- CAPLAN, EDWIN H. (1972) *Accounting Research as an Information Source for Theory Construction* in Robert S. Sterling (ed.) *Research Methodology in Accounting*, Houston, Scholars Book Co.
- CARSBERG, BRYAN V. (1997) 'Foreword in T.Cooke and C. Nobes (eds.) *The Festschrift in Honour of R.H. Panker*, London, Routledge.
- COHEN, MORRIS R. AND ERNEST NAGEL (1934) *An Introduction to Logic and Scientific Method*, Harcourt, Brace and World Inc.
- DEMSKI, JOEL S. (2001) "Some Thoughts on Accounting Scholarship", Presidential Address, August 22.
- DEV. SUSAN (1980) *Accounting and the LSE Tradition*, London: London School of Economics and Political Science Inaugural Lecture
- DEV. SUSAN NAD E.L. INANGA (1979) *Educating Accountants in Nigeria*, Accountancy, *Journal of the Institute of Chartered Accountants in England and Wales*, Vol 90. No. 1028.
- DYCKMAN, T.R. AND S.A. ZEFF (1984), Two decades of the *Journal of Accounting Research*, *Journal of Accounting Research*, 22 (1)
- EPSTEIN, MARE AND BILL BIRCHARD (1999), *Counting What Counts*, Reading MA: Perseus Books
- FASB (2001) *Improving Business Reporting: Insights into Enhancing Vountary Disclosures*, Business Reporting Research Project.
- GOLDRATT, ELIYAHU M. (1990), *What is This Thing Called Theory of Constraints*, Great Barrington, MA: North River Press
- HAWKING, STEPHEN (1988), *A Brief History of Times*, Bantam Books (Random House Inc.)
- HOPWOOD, ANTHONY G. (1988), *Accounting Research and Accounting Practice: The Ambiguous Relationship Between the Two*, in Anthony G. Hopwood (1988) (ed.) *Accounting from the Outside*, New York and London: Garland Publishing Inc.
- HOPWOOD, ANTHONY G. AND MICHAEL BROMWICH (1988), *Accounting Research in the United Kingdom*, in Anthony G. Hopwood (op.cit.).

- IJIRI YUJI (1975) *Theory of Accounting Measurement*, American Accounting Association.
- INANGA E.L. (1991), *Accounting and Accountability*, Inaugural Lecture: Ibadan University Press.
- INANGA E.L. (1998) *Linking Research in Accounting and Finance with Accounting Practice*, MSM Research Papers, Vol. XVIII, Maastricht: Maastricht School of Management, the Netherlands. (Originally presented at a Research Awareness Workshop organised by the Institute of Chartered Accountants of Nigeria.)
- INANGA E.L. AND W.M. BRUCE SCHNEIDER (forthcoming), *The Failure of Accounting Research to Improve Accounting Practice: A Problem of Theory and Lack of Communication*, *Critical Perspectives on Accounting*.
- KERLINGER, F.N. (1964), *Foundation of Behavioural Research* New York: Holt, Rinehart and Winston.
- LEE, T.A. (1989), *Education, Practice and Research in Accounting: Gaps, Close Loops, Bridges and Magic Accounting*, *Accounting and Business Research*, Vol. 19 No. 75 pp. 237-253.
- LEE, T.A. (1999), "Anatomy of a professional Elite: The Executive Committee of the American Accounting Association", *Critical Perspective on Accounting*, Vol. 10, No.2. pp. 247-264.
- LINTER, J. (1965), *the valuation of Risky Assets and the Selection of Risky Investment in Stock Portfolios and Capital Budgets*, *Review of Economics and Statistics* 47 (February) pp. 13-37.
- MACVE, R.H. (1981), *A Conceptual Framework for Financial Accounting and Reporting: The Possibilities for an Agreed Structure*, Institute of Chartered Accountants in England and Wales.
- MARKOWITZ, H. (1992), *Portfolio Selection*, Second Edition, Basil Blackwell: Cambridge, Mass.
- MAUTZ, P.K. (1978) "Discussion" in A.R. Abdel-Khalik and P.F. Keller (eds.), *The Impact of Accounting Research on Practice and Disclosure*, Duke University Press.
- MILES, M.B. AND A.M. HUBERMAN (1991), *Qualitative Data Analysis- A Source Book of New Methods*, Beverly Hills, CA: Sage publications
- MILLER, M.H. AND F. MODIGLIANI (1961), *Dividend Policy Growth and the Valuation of Shares*, *Journal of Business*. 34, pp. 411-433.
- MODIGLIANI, F. AND M.H. MILLER (1958), *The Cost of Capital, Corporation Finance and the Theory of Investment*. *American Economic Review*, 48 pp. 261-297
- MOSSIN, J. (1966), *Equilibrium in Capital Markets*, *Econometrica* 34
- Parker, L.D., James Guthrie, Rob H. Gray (1997), "Publish or Perish: The Social Construction of Quality in Accounting and Management Research", Mimeo. Working Paper.
- PARKER, R.H. (1995), 'David Solomons and British Accounting', *Accounting and Business Research*, Vol. 25, No. 100 pp.311-314.
- PATTON, M.Q. (1990), *Qualitative Evaluation and Research Methods*, 2<sup>nd</sup> Edition, Los Angeles, CA: Sage Publications.
- POLANYI, MICHAEL (1964), *Personal Knowledge: Towards a Post-critical Philosophy*, Harper and Row Publishers.
- ROSS, S.A. (1976), *The Arbitrage Theory of Capital Asset Pricing*, *Journal of Economic Theory*, 13 pp 341-360
- RYAN, BOB, R. W. SCAPENS AND MICHAEL THEOBALD (2002) *Research Method & Methodology in Finance & Accounting*, London Thomsons.

- SELTO, FRANK H, SALLY K. WIDENER (2001), "Relevance of Management Accounting Research", Mimeo. Working Paper.
- SCHNEIDER, WM. BRUCE (1997), The Jenkins' Committee Report: Where Do We Go from Here, MSM Research Papers, Vol. XVII, Maastricht: The Maastricht School of Management.
- SCOTT, WILLIAM R. (1997), Financial Accounting Theory, Saddle River: Prentice Hall Inc.
- SHARPE, W.F. (1983), "The Political Implications of Accounting and Accounting Standard Setting", Accounting and Business Research, Spring.
- STAUBUS, GEORGE J. (2000), The Decision-Usefulness Theory of Accounting Garland Publishers Inc.
- STERLING, ROBERT R. (1972): Research Methodology in Accounting, Houston: Scholar Book Co.
- STRAUS, ANSELM AND JULIET CORBIN (1990) Basics of Qualitative Research, Los Angeles, CA: Sage Publications.
- SUNDEM, GARY L. (1999), Accounting Education Change Commission: Its History and Impact. AICPA / ACEG
- TILBERG R. (1996), CPA Leaders Forge New Vision, Accounting Today.
- TRICKER R.I. (1975), Research in Accounting, Arthur Young Lecture No.1, Glasgow: Glasgow University Press.
- UPTON, WAYNE S. (2001) Business and Financial Reporting, Challenges from the New Economy. FASB Special Report. No. 219-A, April.
- YOUNG S.M. AND F.SELTO (1993) "Explaining Cross-Sectional Workgroup performances Difference in a JIT Facility: A Critical Appraisal of a Field – Based Study", Journal of Management Accounting Research, Fall, 300-26.
- WALLACE, R.S. OLUSEGUN (1997), "The Development of Accounting Research in the UK", in T. Cook and C. Nobes (ed.), (op.cit) pp 218-257.
- WATTS ROSS L., JEROLD L. ZIMMERTNAN (1986), Positive Accounting Theory, Saddle River: Prentice-Hall International.
- ZEFF, S.A. (1997) The Early Years of the Association of University Teachers of Accounting: 1947-1959; The British Accounting Review. Pp (3-39)
- ZOHAR, DANAH (1990), The Quantum Self, William Morrow & Company Inc. New York.
- ZOHAR, DANAH (1997), Rewiring the Corporate Brain, San Francisco: Berret-Koehler Publishers.
- ZOHAR, DANAH AND IAN MARSHALL (1994), The Quantum Society, New York: William Marrow & Company Inc.