CHAPTER –I
INTRODUCTION

1.1.1 Publication:
In general the nature / act of publication is expressing or making known. It is the notification at large, either by words, writing printing proclamation. It is especially any book pamphlet etc: offered for sale or to public notice as a daily or monthly publication.

1.1.2 Definition of Publication
“Publication is a copy of a printed work offered for distribution.

- Publication is the act of issuing printed materials.
- Publication is the communication of something to the Public: making information generally known.
- Publication is making information publicity available in a reproduce form.

To publish is to make content publicly known. The term is most frequently applied to the distribution of text or images on paper, or to the placing of content on a website.

The word publication means the act of publishing, and it also means any writing of which copied or published, on any website. Among publications are books, and periodicals the latter including magazines, Scholarly journals, and newspapers.

The publication Manual of the American Psychological Association is the style manual of choice for writers, educators, students, and educators in the social and behavioral sciences. In all aspects invaluable guidance on all aspects of the writing process from the ethics of authorship to the word choice that best
reduces bias in languages. Well–known for its authoritative and easy to use reference and citation systems, the publication manual also offers guidance on choosing the headings tables, figures, and tone that will result in strong, simple, and elegant scientific communication.

1.1.3 Publication Design

Publication design is a diverse covering everything from magazines, newspapers, and books to annual reports, product catalogues, newsletters, journals and everything in between. Amongst other things it explores printing and finishing techniques and the feel of the publication on hand as well as the graphic design.

It is the comprehensive guide to all forms of printed publication.

1.1.4 Benefits of Publication

As a result of publication, an applicant may assert provisional rights. These rights provide a patentee with the opportunity to obtain a reasonable royalty from a third party that infringes a published application claim provided actual notice is given to the third party by applicant and a patent issues from the application with a substantially identical claim that is explained.

Sometimes wonder why anyone would submit to a non-refereed journals but then we remember that some of the best and most prestigious journal are non refereed.

For some writers the opportunity to reach the large audience of these journals and the prestige derived from publishing in them out weights the need to be published in refereed journals.

While the surveys are our richest vein of information some of our best insights into writing publication come from talking to our students and the participants in workshops.
1.1.5 Background for publication

The number of periodicals reviewed scientific publication is conservatively estimated to exceed 16,000. worldwide nearly 1.4 million articles are published every year. Even though electronic formats theoretically allow access to most current publications, the sum of subscription fee charged by most periodicals exceeds the means of academic institutions not to mention individuals. Accordingly librarians limit the quantity of periodical subscriptions. Researcher have a vast number of journals to choose from when to publish their work. Preferably quantitative information assists publication and subscription decisions, in effect which publication to count as important simple descriptive quantitative measurement of a journals performance is the “Impact Factor”. The average number of times articles from the journal published in the past two years has been cited in the current year.

1.1.6 Publication in Quality Journals;

Publication in quality journals has become a major indicator of research performance in UK. Universities. Actually what a quality journal does not really matter agreement that there are such things matters very much indeed. As so often happens with indicators of performance, the indicator has become the target. So the challenge is to publish in quality journal and the challenge rewards.

The author while write should follow on review for publication

- The target scientific community
- Originality
- Appropriateness of the approach or experimental design
- Appropriateness of the statistical analyses
- Adherence to correct scientific nomenclature
• Appropriate literature citations
• Adequacy of experimental techniques
• Soundness of conclusion and interpretation
• Relevance of discussion.
• Organization.
• Adherence to the instruction to authors.
• Adequacy of title and abstract.
• Appropriateness of supplemental material intended for posting.
• Length.

Whether it describes misuse of microbial systems or the information derived therefrom,

1.1.7 Writing for Publication

One of the key professional concerns for staff working in higher and to some more extent, further education is to be involved in scholarly publishing. With in that concern as a direct result of recent research assessment exercise, is the question of what counts as a high status journals? The question is a vitally important one for lectures and researchers who are striving to achieve highly in research rating. Yet it has not been the subject of either wide debate or extensive empirical work. In an attempt to provoke discussion on this issue. This to be, objective, such as the journal impact factor.

1.1.8 Effective Articles:

Effective writers are committed to survey readers, not impressing an citation. Successful writers deliver substance and work hard to help their readers understand it. A vital element is in helping readers understand the
structure. One of the many strengths of research using a one page questionnaire to survey editors is that it provides a natural structure.

1.1.9 Copy – Editing and Proof Reading:

Once the editor has accepted article for publication, She/ He will send the copy for editing. That is it will be checked for spelling, punctuation, bibliographical formatting, etc. and marked up ready for type setting. This may take a couple of weeks or a couple of months depending on the journals publication schedule. We may be sent a copy of – edited version of our articles in print or PDF format. If so, we should check that the copy – editor hasn’t introduced any errors but most importantly this is our final opportunity to make our own minor improvements. Then our articles will be typeset, that is formatted to the visual style of the journal.

1.1.10 Use of Themes:

Journals designate some issues, themes use with all articles on those issues related to the announced theme (action in teacher education).

This means that by writing to a theme researchers may cut the competition greatly all journals have dead lines but missing a themed issue dead line can be worse than submitting a manuscript blindly for a journal that has just published an issue on a particular topic might avoid that topic for the next year or two. Most journals that publish themed issues will carry in their pages a call for manuscript on particular themes. Many journals will list the themes and deadline in the same issue every year.

1.1.11 Rejection Rates:

Researchers are shocked to learn that many beginning writers send their manuscript to journals with very high rejection rates. Average rejection rate of 63% Indeed about two thirds (65%) of the editors reported rejection rates of (75%) or higher. Researchers recommend that those who have not published
many manuscripts target their efforts towards journals with acceptance rates of at least 25%.

Never to submit a manuscript at all the next most effective way to reduce the number of rejections is to learn the rejection rates of journals in research field and avoid submitting the majority of research manuscript to those journals that have high rejection rates.

1.1.12 Effective Writing:

Effective writing for publication requires a box filled with tools, and the most important of these tools is the right attitude. Successful writing for publication isn’t about how intelligent we are or whether or not we have the gift of a “natural Writer”.

1.1.13 Successful Manuscript:

Successful manuscript offer substance that the readers consider worthwhile.

Similarly editors are looking for articles that contribute significance to the field. Among editors reject manuscripts that are articles “does not push the field” lack data.

1.1.14 Turnaround Times:

Successful writers must publish often so their selected journal must have Reasonable turnaround records. The longest wait time is the delay that follows an acceptance decision. However a closer look shows that some journals take almost 20 times as long as others to publish manuscript.

1.1.15 Preparation and Submission:

There’s nothing more irritating to an editor that getting 20,000 word piece without explanation when the limit is 10,000 or having authors name all over the paper when it is to a blind refereed. We have to follow the formally
instructions for bibliography abbreviations, etc. If there is a problem about length, illustrations etc. it is often a good idea to e mail the editor in advance and to submit articles in the format requested. Usually how as an e mail attachment in worth but the journal may also require PDF or a printout for double – clicking. Images and tables are usually sent as separate files not embedded in the main document unless the journals submission instructions state otherwise. A short covering letter with contact details is to be included.

1.2. Peer reviewed Journals

Scholarly Professional Journals with Feature articles written by researchers and practitioners in a particular subject area reviewed by Peer group of researchers. Scholars and Professional with the audience for in Literature.

1.2.1 Peer Reviewed Publication:

Articles appearing in a journal are sent outside of the journal publishing or sponsoring organization for review by external reviews, whereby the either author’s identify or the reviewers identity is unknown.

Editorial Board in journals are reviewed by an internal board of editors not surely by one editor. The authors identity may be known or unknown. Experts peer Review appearing in a journal are reviewed by experts whose credentials are known and who are experts within the subject ma

Articles accepted for publication through a peer review process implicitly meet the disciplines expected standards of expertise.

1.2.2 Articles Published in Scholarly journals:

There is a new medium for publishing scholars journals. That medium of course is the world wide web. The number of e- journals are proliferation in the information sciences as well as in other professional and academic areas.
These include publication frequency, publication size measured by number of articles, number of issues per year, corporate author, nationality, number of authors, authors' gender, and other factors. E-Journals may have certain limited advances over the P-journals counterparts and these include cost of publication and tolerance for longer offerings. E-Journals editors face the same challenges to build readership and contribution bases, quality control, sponsorship, and the many other factors that enter into journal publication. E-Journals may have some resistance from potential authors in that, not all academic disciplines as yet accept them as peer reviewed journals that have the same merit to promote scientific findings nor do e-journals offer the same assurance of long-term availability that paper siblings do.

1.2.3 Online Journals:

There are embargos in some online journals. In most cases, the embargo is available in more than one database. As shown in the online journals listings, however, in some cases the embargo may not be stated.

The online journals directory is updated rightly but there can be delays in updating changes in availability of titles and dates.

1.2.4 Journal Performance Indicators:

Many of the discrepancies inherent in “journals impact factors” are eliminated altogether in another, scientific database called performance indicator. Unlike the journals citations rates, the journals performance indicator database links each source item to its own unique citations. Therefore the impact calculation are more precise. Only citation to the substantive items that are in the denominator are spans. In addition to helping libraries decide which journals to purchase, journal impact factors are also used by authors to decide where to submit their articles. As a general rule, the journals with high impact factor include the most prestigious is a highly controversial issue. Granting and other policy agencies often wish to pass the work involved in obtaining citations counts for individuals articles and authors articles and authors.
Recently published articles may not have had enough time to be cited. So it is tempting to use the SIF as a surrogate. Evaluation tool. Typically when the authors work is examined the impact factor of the journals involved are dubious considering the known.

Presumably the more acceptance of the paper for publication by a high impact journal is an implied indicator of prestige. Today, so called web metrics are increasingly brought in to play though there is little evidence that this approach is any better than traditional citation analysis. Web’s ‘citations’ may occur a little earlier but they are not the same as ‘citation’. Thus one must distinguish between readership or downloading and actual citation new published papers. But, some limited studies indicate that web citations is a harbinger of future citation. A general formula based on the citations relatedness between journal is used to express how chase they are in subject matter. A journal impact factor is based on two elements the numerator which is the number of citations in the current year to items published in the previous two years and the denominator, which is number of substantive articles and review published in the same two years. An impact factor could also take with account longer periods of citations sources but then the measure would be less current.

1.2.5 Choosing the Journal:

Choosing the ‘right’ journal is key factor, in relation to the intrinsic content of a paper in achieving. Publication after the research is completed it is important to select a prospective writing, journal early in the manuscript preparation process so that the using the correct format and terminology. The selected journal should be appropriate to get message, across to the target audience and should be relevant to the content of the paper. Preferably it should also have an appropriately high journal impact factor and related citation indices as these indicators are increasingly used to assess the academic credibility of a journal. Citation analysis encompasses different parameters that are used to evaluate the research quality of a journal. These parameters are
based on the assumption than influenced articles are cited more often. Indeed, these bibliometric indicators are increasingly used to choose journal for submission of scientific reports.

1.2.6 Preparatory stages of the manuscript:

In general, the abstract should be written as it will then be just a matter of condensing and highlighting the key points. Journals have specifics for abstracts they should present the purpose. Study design method, main result, and conclusions. The abstract must be independent of the body of the paper itself the abstract can be structured or non-structured depending on the journal requirements and notably some journals use more than type of abstract structure depending on the type of research paper.

1.2.7 What will the editor do with the paper?

He or she will probably do it immediately. As having problems which are too obvious to justify peer – review. Nevertheless it is a measure like this that being used to judge journals.

Peer – reviewed Journal:

This should neither be too short nor too long it should not overstate the research, but it must clearly describe the research content. Abbreviations in the title of manuscript. Should never be used.

1.2.8 Peer – Review:

Before an article is published in a journal usually goes through a review process during which the scientific or scholarly manuscript its evaluated in terms of its significance and publication worthiness. This process is known as peer review. In double blind peer – Reviews neither the author nor the reviewer knows the other’s identity. Like their conventional counterparts many are controlling the quality of the articles they publish. How ever the traditional peer – review process is subject to a lot of criticism. For example the slowness
of the process. Shows subjectivity and bias on the of the reviewers. In responses to this criticism new review procedures are being developed.

Public reviewed manuscripts are available to the scientific community for use and evaluation at an early stage so that inaccurate or dishonest result can be detected faster. Further more this procedure is likely to lend to prompt authors to take greater care when producing and submitting their manuscript. This will make the editors job easier and may lead to a reduction in the journals rejections rate.

**International Authors Opinion on Publishing at – Case Studies:**

Science journals have high impact factor, some social sciences and most humanities journals. (If they are covered at all) have very low numbers. These are not to be compared. For instances Neuron with a very high impact factor cannot be compared to the highest impact factor history journal for a variety of publication and disciplinary reasons.

Less than a quarter of the peer – reviewed journals world wide are covered by ‘Science Citation Index (SCI)’. Despite the criticism leveled at the Impact Factor as a measure of the quality of scientific and scholarly journals a study by Thomson ISI found many references in the Internet to lists of OA journals with an impact factor. However there are also alternative yardsticks for visibility in addition citation based indicators of the reputations of a journal, the increased visibility of OA published scientific and scholarly texts can be deduced from the number of downloads, although this measure should also be interpreted with caution. A further indication of the visibility to participate in conferences or book projects reported by author’s

**Informed and careful use**

Back in the old days, editors only had to attract papers get then peer – reviewed and publish the one which they felt were worth it. Libraries brought the journals, researchers read the papers and perhaps everyone was happy. But
the need to demonstrate efficiency and value for money in relation to competitors among these is the journals impact factor (JIF).

Only journals as online publications often reach for larger audiences and enter major database and search engines such as Google Scholars. There are also many highly respected online – only journals in many academic disciplines.

The function of a journal is to distribute knowledge, not to make money for the publishers. Scholars documentation provides the exact source - including the author and the page numbers – for every important bit of outside information. Academic journals are periodicals in which researchers publish articles on their work. Journals also publish theoretical discussion and articles that critically review already published work. Most of these articles discuss recent research. The articles will probably be long, complex and possible difficult for a non expert to understand right away. Offering a list of “recommendation for further reading” or vague collection of “Sources” is not enough. Foot notes or endnotes may be present. The article should end with a detailed bibliography.

An academic journal is a peer – reviewed periodical in which scholarship relating to a particular academic discipline is published. Academic journal serve as forums for the introduction and presentation for scrutiny of new research and the critique of existing research. Content typically takes the form of articles presenting original research, review articles, and book reviews. Academic or professional publication that are not peer – reviewed are usually called professional magazines. The term ‘academic journal’ applies to scholars publications in all fields this quantitative social sciences vary in form and function from journals of the humanities and qualitative social sciences.

1.2.9 Scholarly Articles:

Professional scholars typically make unsolicited submission of their articles to academic journals. Upon receipt of a submitted article manuscript
the journals editor determines whether to reject the submission outright or begin the process of peer – review by outside scholars of the editors chosen. The number of these peer – reviewers varies according to each journal editorial practice typically no fewer than two and usually at least three outside peers review the articles. The editor uses the reviewers opinion in determining whether to publish the articles return it to the authors for revision or to reject it even accepted articles are subjected to further editing by journal editorial staff before they appear in print typically because the process is lengthy and accepted articles will not be published until month after its initial submission. While publication after a period of several years is not unknown. The Peer – review process is considered critical to establishing a reliable body of research and knowledge. Scholars can expect only in a limited area of their fields. They rely upon peer – reviewed journals to provide reliable, credible research upon which they can build subsequent related research.

1.2.10 Review Articles:

Review articles also called “review of progress” are checks on the research published in journals. Some journals are devoted entirely to review articles. Other contain a few in each issue but most do not publish review articles. Such reviews often cover the research from the proceeding year, some for longer or shorter terms. Some are devoted to specific topics. Some to general surveys. Some journals are enumerative, listing all significant articles in a given subject others are selective, including only they think worthwhile. Yet others are evaluative, judging.

Some journals are published in series each covering a complete subject fields year. On covering specific fields through several years. Unlike original research articles, books reviews tend to be solicited submissions. Sometimes planned years in advance . Book review authors are paid a few hundred dollars for reviews, because of this the standard definitions of open access do not require review articles to be open access, though many are so. They are typically relied upon by students beginning a study in a given field.
1.2.11 Book Reviews:

Book reviews of scholarly books are checks upon the research books published by scholars. Unlike articles book reviews tend to be solicited. Journals typically have a separate book review editor determining which new books to review and by whom. If an outside scholar accepts the book review he or she generally receives a free copy of the book from the journal in exchange for a timely review. The length and depth of research book reviews varies much from journals to journal as does the extent of text book and trade book.

1.2.12 Publishing:

Many academic journals are subsidized by Universities or Professional organizations, and do not exist to make a profit however, they often accept advertising page and image change from authors to pay for production costs on the other hand. Some journals are produced by commercial publishers who do make a profit by charging subscriptions to individuals and libraries. The may also sell all of their journals in discipline specific collections or a variety of other packages.

Peer Review a well accepted indicator of Quality Scholarship:

It is the process by which an author read a paper submitted for publications. A number of recognized researchers in field will evaluate a manuscript and recommend its publications, revision, or rejection. Articles accepted for publication, through a peer review process implicity meet the disciplines accepted for standards of expertise. Articles in some scholarly and professional journals are not peer reviewed but are selected by an editors or board. Standards of scholarship in such journals are often equal or comparable to those of peer reviewed publications although this is not always the case. Peer – reviewed journals can be identified by their editorials statements or instructions to authors and in sources.
1.2.13 Peer–Reviewed Journals. Versus Scholarly Journals:

Scholarly journals contain articles written by and addressed to experts. In a discipline, they are concerned with academic study, especially research, and demonstrate the methods and concerns of scholars. The main purpose of a scholarly journal is to report original research or experimentation and to communicate this information to the rest of the scholarly world. The language of scholarly journal reflects the discipline covered as it assumes some knowledge or background on the part of the reader. Scholarly journals always rigorously cite their sources in the form of footnotes or bibliographies. Many scholarly journals are published by professional organization. While not all scholarly journals go through the peer review process, it is usually safe to assume that a peer – reviewed journals is also scholarly.

1.3.1 History of Citation Indexing

The concept behind citation indexing is fundamentally simple. By recognizing that the value of information is determined by those who use it. What better way to measure the quality of the work than by measuring the impact it makes on the community at large. The widest possible population with in the scholarly community. ( i.e. anyone who uses or cites the source material) determines the influences or impact of the idea and its originator on body knowledge. Because of its simplicity, one tends to forget their citation index.

1.3.2 What is a Citation Index?

A citation index is compilation of all the cited references from journal articles indexed in the databases. In a citation index we can look up a published paper in order to find journal articles papers in order to find journal articles that have cited it. ISI has produced an introduction to cited reference searching.
1.3.3 Opinion on Citation Index

Citation Index and Impact Factor in Scientific Publication Show opinion and observation on the publication of the scientific results in refereed High Impact Factor International Journals. (HIFIJ) and issues related to the Universal nature and status of science call for a wider debate. It is certainly not important where the science has been done the only merits are communicated results and their implications. Citation indices and Impact Factor are good indices and come in handy for such an exercise to avoid subjectivity while assessing competence on a scientist.

1.3.4 Details of Citation Index and Indexing Services

1.3.5 Citation Index

A citation index is an index of citation between publication, allowing the user to easily establish which later documents cite earlier documents.

The first citation indices were legal citation such Shepard’s citation (1873), in 1960, Eugene Garfiled’s Institute for Scientific Information (ISI) introduced the first citation index for papers published in academic journals, starting with the science citation index (SCI) and later expanding, to produce the social Science citation index (SSCI).

It doesn’t take a great deal of thought to see why the ‘worth’ of a paper isn’t well assessed by the impact factor of the journal in which it is published. Impact Factors are essentially the average number of citations for in a particular journal. Problem is citation aren’t normally distributed across those papers making the power of the average to predict the likely citations of an individual paper very low.

Impact Factor at a journal level, and the realization that impact factor isn’t some objective measure but is open to a large degree of interpretation.
1.3.6 What is Citation Impact?

Citation impact is the number of times a paper has been cited. ISI indexes articles in a set of journals, so citations from publications like conference proceedings and books may not be represented in the citation count for a particular paper. Impact Factor and Citation Index databases include only normal articles, notes, and reviewers in the denominator as citable items, but records citations to all types of documents (Editorials, letters, meeting, abstract, etc), in the numerator, citations to translated journals versions are even listed twice. Because of this flawed computation, a journal that includes meeting reports interesting editorials and a lively correspondence section can have its impact of their journals should make frequent reference to their previous editorial, since the databases makes no correction for self citations.

The inclusion of review articles, which generally receive many more citation than ordinary articles. Journals might wish to publish long rather than short articles.

The references are rearranged in the databases to show how many times each publication has been within a certain period, and by whom, and the results are published as the Science Citation Index (SCI) on the basis of the Science Citation Index and author’s publication lists, the annual citation rate of papers by a scientific author or research group can thus be calculated. Similarly the citation rate a of a scientific journal known as the journal impact factor can be calculated as the mean citation rate of all the articles contained in the journals. Journals impact factors which are published annually in SCI journals citation reports, are widely regarded as quality ranking for journals and used extensively by leading journals in their advertising.
1.3.7 Size Vs Citation Density

There is a widespread belief that the size of the scientific community that a journal serves significantly affects impact factor. This assumption overlooks the fact that while more authors produces more citation. These must be shared by a larger number of cited articles. Most articles are not well cited but some articles may have unusual cross-disciplinary impact. It is well known that there is skewed distribution of citation is most fields. The so called 80/20 phenomenon applied in that 20% of articles may account for 80% of the citations. The key determinants of impact factor are not the number of authors or articles in the fields but rather, the citation density and the age of the literature cited. The size of a fields, however will increase the number of ‘super-cited’ papers and while a few classic methodology papers enclosed a high threshold of citation, thousand of other methodology review papers do not.

1.3.8 Citation Analysis

While citation indexed were originally designed for information retrieved purposes, they are increasingly used for bibliometric and lather studies involving research evaluation. Citation data is also the basis of the popular journal impact factor.

1.3.9 Citation Index, and Analysis

Citation analysis is the examination of the frequency and pattern of citation in articles and books. Due to unpredented growth of electronic resource (e-resource) availability the question currently being explored is how often are – e-resource being cited in the field.

1.3.10 Citation search Tool – Issues

Quick Guide to finding citation data

Citation analysis is a quality indicator. We need to know how to calculate the number of times We published research have been cited by others researchers.
A variety of databases can be used to find the number of citation a publication has received. However, it is essential that where we use more than one database to identify who has been citing our articles, we must ensure that we do not count citations to the same articles more than once.

**Issues to be aware of**

- Data is limited to citations received for journals indexed by scopus only.
- Conferences proceeding and looks may have limited coverage.
- There may be some overlap between databases. So it is essential to ensure that only unique cited are counted.
- The format of the authors name vary, and all variations need to be included in the count.
- The citation may have been entered incorrectly or misspelled these variations should be included in the count.
- Because some names are common make sure you don’t pick up publication by a different person with the same name.

### 1.3.11 Major Current Citation Indexing services

There are two publishers of general purposes academic citation indexed available to libraries by subscription.

ISI is now part of Thomson scientific. Though the ILSIL citation indexed as still published in print and compact disc they are now generally accessed through the web under the name web of science. Which is part of the group of data base in work.

Elsevier publisher scopus available online only which similarly combines subject searching with citation browsing and tracking in the sciences and social sciences.
1.3.12 Citation Indexing Services Google scholar

Google Scholar is a free search engine created to allow easy access to “Scholarly” literature. It can also used to locate citation of particular authors works as an alternative or working in parallel with other citation databases such as web of science and scopus. Note that some material indexed by Google Scholar may meet there RQF quality guidelines.

The Institute for Scientific Information (ISI) publishes the Sciences Citation Index (SCI). Which provides access to current bibliographic information and cited references. The online version of SCI called web of science.

1.3.13 Limitations of the Database

The Science Citation Index database covers about 3200 journals the estimated world total is about 12600. The coverage varies considerable between research field. Since the impact factor of any journals will be proportional to the database coverage of its research field. Such discrepancies mean that journal from an under represented field that are included will receive low impact factor. Further more the journal set in the database is not constant but vary in composition from year.

Journal in the Journal Citation Reports

Some of the journals listed in the journal citation reports are not citing journals but are cited only journals. This is cited only journals are not included in its impact calculation self - citation often represent about 13% of the citations that a journal receives. The cited only journal with impact factor in the journals Citation Reports journals Ranking and subject category listing may be ceased or suspended journals that are covered in the science editors of current contest but not a citation index.

There have been many innovative applications of journals impact factors. The most common involve market research for publishers and others.
But primarily JCR provides librarians and researchers with a tool for the management of library journal collections. In market research the impact factors provides quantitative evidence for editors and publishers for positioning their journal in relation to the completion- especially others in the same subjects category in a vertical rather than a horizontal or intra disciplinary comparison.

1.4.1 Journal impact factor

Some database publish statistics such as impact factor which is the number of citation events for papers in the journals by the numbers of paper published in the journals. Citation Analysis has blossomed over the past decades. The field now has its own International Society of scientometrics and Informetics. Stephen lock, former edit of BMJ aptly named the application of bibliometrics to journals evaluation “journalology”.

All citation studies should be adjusted to account for variable such as especially. Citation density and half – life. The citation density is the average number of references cited per sources articles and is significantly lower for mathematics journals. The assignment as a substantive articles and a significant letter might not be. Further more no effort is made toll differentiate clinical Vs laboratory studies or for that matter practice based Vs research based articles. All these potential variable provide first mill of citation aficionados.

Strictly speaking the journal Impact Factor only measures the average citation rate of all the “citable” articles research articles, technical notes and reviews in a journal. As such impact Factor is not a perfect tool to measure the journal quality.

1.4.2 Calculation of the Impact Factor

The journal Impact Factor defined by the ISI is a ratio of two elements. The denominator is the total number of “citable” articles published in a particular journal with in a given timeframe. The numerator is the total number
of citations in the current year to any article published in the journal during that
given time frame. The ISI has defined this time frame as two years. The Impact
Factor of a journal. A in a particular year.

Journals that are indexed starting with a volume other than the first
volume will not have an impact factor published until three complete data –
years are known annuals and other irregular publications will sometimes
publish no items in a particular year affecting the count.

1.4.3 Calculation for journal impact factor

A= total cites in 1992


C= number of articles published in 1990 – 1991

D= B/C =1992 Impact

The impact factor is useful in clarifying the significance of absolute
frequencies.

The Impact Factor of a journal is calculated based on a rolling two year
period. It can be viewed as the average number of citation in as year given to
those papers in a journals that were published during the two preceding years.

For example, the 2003 impact factor of a journal would be calculated as
follows:

A = the total number of “citable items” published in 2001 and 2002
were cited (by indexed journals during 2003)

B= the total number of “citable items” published in 2001 and 2002
(citable items are usually articles, reviews, proceedings or notes editorials or
letter – to- the Editors)

2003 impact = A/B
A convenient way of thinking about it is that a journal that is cited once per year, on average, for each article published has an impact factor of 1 in the expression above.

New journals that are indexed from their first published issues, will receive an impact factor after the completion of two years indexing in this case the citations.

1.4.4 Impact Factor – Validation Details Alternative

**Misuse**

The impact factor is often misused to predict the importance of an individual publication based on where it was published.

Academic reviewers involved in programmatic evaluation, particularly those for doctoral degree granting institutions, often turn to ISIs proprietary, Impact Factor listing of journal in determining scholarly output.

Factors that bias the Calculation of the Impact Factor

The ready accessibility of the impact factor and the lack of other well-known quality indicators have rapidly contributed to the attribution of impact factor as an indicator of journal quality. However, it is important to remember that the calculation of the impact factor is biased by many factors. These include,

Coverage and language preference of the ISI database

Procedures used to collect citations at the ISI.

Algorithm used to calculate the Impact Factor.

Citation distribution of Publications.

Citation to invalid articles.

Negative citation.
Preference of journal publishers for articles of a certain type.

Publication lag.

Citing behavior across subjects.

Possibility of exertion of influence from journal editors.

Applications

There have been many innovative applications of journal impact factors. The impact factor provides quantitative evidence for editor publisher for positioning their journals in relation to the completion.

The impact factor can be used to provide a gross approximation of journals in which individuals have been published.

The impact factor can be useful in all of these applications, provided the data sensibly. It's important to note that subjective methods can be used in evaluation as for example by interviews or questionnaires.

Validity

The denominator of the impact factor is negotiable and therefore does not reflect actual citation counts.

The impact factor could not be reproduced in an independent audit.

The impact factor refers to the average number of citations per paper and this is not a Gaussian distribution. It is rather a Bradford distribution as predicted by theory. The impact factor is therefore not a valid measure for citation evaluation.

In the short term especially in the case of low-impact journals, many of citation means that counting citation may be independent of the real 'impact' of the work among investigators.
Inaggregate impact factor

Subject category: it is calculated taking into account the number of citation to all journals in the subject category and the number of articles from all the journals in the subject category.

These measures apply only to journals not individuals articles or individuals scientists. the relative number of citation an individual article receives is better viewed as citation impact

It is however possible to measure the Impact Factor of the journals in which a particular persons has published articles. This use is widespread, but controversial.

Problems associated with the use of Journal Impact Factor.

- Journal impact factors are not statistically representative of individual journal articles.

- Journal impact factors correlate poorly with actual citations of individual articles.

- Authors use many criteria other than impact when submitting to journals.

- Citations to “non – citable” items are erroneously included in the database.

- Self citations are not corrected for.

- Review articles are heavily cited inflate the impact factor of journals.

- Long articles collect many citations and give high journal impact factors.
**Journal Impact factors depend on the research field.**

Citation habits and citation dynamics can be so different or “impossible”. The citation impact of a research fields as to make evaluative comparison on the basis of citation rate or journal impact difficult or impossible. The Citation impact of a research field is directly proportional to the mean number of references a per article. Which varies considerably from field to field.

In young and rapidly expanding research field the number of publication making citations is large relative to the amount of citable material leading to high citation rated for articles and high journal impact factors for the field.

Publication lag allows many short term journal self – citations and gives at high journal impact factor.Citations in the national language of the journal are preferred by the journals author. Selective journal self citation, articles, tend to preferentially cite other articles in the database as a source for citation.Database has an English language bias.Database is dominated by American Publication.Journal set in database may vary from year to year.

Research field with literature that rapidly becomes obsolete are favored. Impact Factor depends on dynamics of the research field Small research field tend to lack journals with high impact. Relations between field strongly determine the journal impact factor. Citation rate of articles determines journals impact, but not vice.

**Alternative Journal Impact Measures**

The wide use of the Impact Factor combined with obvious plans has motivated researchers in scientometrics to try to improve the algorithm for the calculation of the Impact Factor or to develop alternative journal citation measures altogether.If they focused on four aspects ‘non – citable’ included in the numerator of the impact factor calculation, the relative distribution of research articles, technical notes and reviews different citing behavior across
subject fields land the fixed two year citation a fields and the fixed two year citation window. They developed on alternative journal impact measure the journal to fields impact score, (JFIS) to provide solution to biases incurred from these four aspects. The journal factor includes research articles technical notes, letter and reviews both in the numerator and the denominator.

Problems Issues & Challenges Impact Factor

JIFs are widely publicized and may influence subscriptions and where authors submit papers so they are much discussed in the publishing world. But although they tell us, something about a journals citation performance their short coming mean that they are poor general indicators of journal quality. The shortcoming include the following i) The two cited years may completely misrepresent the total current citation rate for the journal. ii) The short citation period, (1year) result in many papers not contribution to the JIFs and usually two thirds or more of the JIF depends on the most cited 25% of paper. (iii) The JIF of the journal where a paper is published is therefore a very poor guide to the papers citation performance or the success of the author citation counts more specific to the even within the published categories. (v) Statistical analysis shows that the relative standard deviation of year to year variation of a JIF for a journal with a JIF 1.5 is likely to be between 10% and 20% on top of any longer trend. Quotation of JIFs to three decimal places is therefore meaningless and for a journal like annals of occupational Hygiene, a single annual change of 70% could easily be due to chance shift from a negative to positive fluctuation (vi) The citation counted are not only of individual papers. So it is difficult to reproduce the JIF calculation, (vii) The selection of journal has been criticized for example the alleged emphasis on American or English language publication.
Manipulation

A journal can adopt editorial policies that increase its impact factor. These editorial policies may not solely involve improving the quality of published scientific work.

Journal sometimes may publish a large percentage of review articles. While many research articles remain uncited after 3 years, nearly all review articles receive at least one citation within three years of publications. Therefore review articles can raise the impact factor of the journals. Is largely a matter of negotiation. Between journals and Thomson Scientific. When they cite published articles. Often articles from the same journal those citation increase the citation count for the articles.

Journals may change the fraction of “citable items” compared to front matter in the denominator of the IF equation. Which types of articles are considered “citable”.

Several methods not necessarily with intent exist for a journal to cite articles in the same journal to cite articles in the same journal which will increase the journals impact factor.

An editor of a journal may encourage authors to cite articles from that journal in the papers they submit. The degree to which this practices the citation count and impact factor included in the journal data must therefore be examined. Most of these effects are thoroughly discussed on the cites help pages along with ways for correcting the figures, However it is almost Universal for articles in correcting, a journal to cite primarily its own articles for those are the ones of the same merits in the same special field. If done artificially the effect will become especially visible when (i) journals have a low impact factor and (ii) publish only few papers per year.

Is the Impact of an articles increased by publication in a high impact Journal
It is widely assumed that publication in a high impact journal will enhance the impact of an article. In a comparison of two groups of scientific authors with similar journal preference who differed two fold in mean citation rate articles, however the relative difference was the same throughout a range of journals with impact factors 0.5 to 8.0. It is high impact journal. These data suggest that the journal do not offer any free ride. The citation rates of the articles determines the journal impact factor a truism illustrated by the good correlation between aggregate citation rates of articles and aggregate journal impact found in these data but not vice versa.

If scientific authors are not detectable rewarded with a higher impact by publishing in high impact journal. Why are we so adamant on doing it? The answer of course is that as long as there are people who judge our science by its wrapping rather than by its contents we cannot afford to take any chances. Although journal impact factors are rarely used explicitly, their implicit count part journal prestige, is widely hold to be a valid evaluation criterion an is probably the most used indicator besides a straight forward count of publications as we have seen however, the journal cannot in any way be taken as representative of the articles.

Impact Factor is not a perfect tool to measure the quality of articles, but there is nothing better and it has the advantage of already being in existence an is therefore a good technique for scientific evaluation. Experience has shown that in each specially the best journal are those in which it is most difficult to have an article accepted and these are the journals that have a impact factor most of these journals excited long before the impact factor was devised.

The Impact Factor is a very useful tool for evaluation of journals, but it must be used discreet. Considerations include the amount of review or other types of material published in a journal, variations between disciplines, and item – by – item impact. The journal’s status in regard to coverage in the Thomson Reuters databases as well as the occurrence of a title change are also very important.
1.5 Summary:

In the introductory Chapter an attempt was made by the investigator to give a detailed account on the aspect of publication. In this section minute details from the concept of publication to the submission was presented.

In the second section details on peer review, process of peer indicators, the status of peer – reviewed journal including on line publication were presented.

In the third section publication, Quality Indicator on publication were dealt with the focus on citation and the procedure for citation analysis etc.

In the last section, details an impact factor, issues problems related to interpretation of impact factor were dealt with.