Academic Staff Views on the Use and Challenges of Impact Factor for Assessment for Promotion and Career Progression

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Abstract
Purpose: *The study ascertained the views of academic staff on the use and challenges of the use of the journal Impact Factor (IF) for assessment.*

Design/Methodology/: *Descriptive survey research design and purposive sampling technique are adopted for the study. 250 lecturers from the rank of Senior Lecturer to Associate Professor were purposively sampled for the study. A questionnaire designed by the researchers was used to collect data while frequency counts and percentage were used for data analyses.*

Findings: *The findings reveal that respondents are of the view that IF is better used for assessment in an environment that is supportive of quality research; IF is detrimental to the growth of the local journals; there is perceived high rejection rate of manuscripts from developing countries. Insistence on IF can potentially impinge on job satisfaction and commitment of academic staff. However, the potential effect on academic staff retention is minimal.*

Implications: *The study has implications for university administration and academic staff. Research and publication thrive in an environment that is supportive. It important that the perceived barriers to research and publication are addressed first in order to increase chances of academic staff producing quality research works that can be published in IF rated journals.*

Originality/Value*: The study provides empirical evidence on the views of academic staff on the use of the impact factor for assessments. This will assist administration to better understand the concerns of academic staff on adoption of impact factor.*

Keywords*: Journal Impact Factor, Academic staff assessment, Academic staff evaluation, Academic research, Research output, Scholarly communication*

Introduction

Research and publication go together in the academic world. As a mark of true scholarship academics are expected to carry out research that will advance knowledge and learning. The expectation also is that they will communicate their research efforts by publishing them. This is because "research work only becomes 'a work' in the academic world when it takes the conventional, physical form of a published paper or its equivalent" (Ramsden cited in Zainab, 1999:73). The importance of research output to academics in universities can more clearly be appreciated from the angle that a significant aspect of the assessment of academic staff is based on it. Invariably, success in the endeavor earns them promotion, tenure and consequently, salary enhancements. It also enhances "their visibility, mobility, knowledge, increases teaching effectiveness and the ability to think and communicate" (Lertpatturk, 2008).

Undoubtedly, research output also comes with implications for the university, students and the professional field. For the university, among other things, research output of every faculty member helps to increase their visibility, enhance their public reputation and can help attract research grants and other funding necessary to carry out more research. It can also help to attract more student enrolment for the university (Lertputturk, 2008). In the same vein, students gain from the wealth of knowledge which their research productive lecturers garner. Research and publication equally enriches and increases the body of literature in a given professional field (Wood & Park, 2013).

Given the many benefits derivable from research and publication, academic staff in tertiary

institutions in Nigeria as elsewhere are encouraged to pay serious attention to this aspect of academic requirement by engaging in research so as to increase their research output. Academics on their part are desirous to increase their research output in order to enjoy the attendant benefits. However, while this is commendable in itself, there is worry that this quest has resulted in an increase of publications that are considered sub-standard (Okeke, 2013; Patwardian, 2015). Furthermore, concerns are being expressed over the myriad of publishing houses and the so called online predatory journals patronized mostly by researchers from developing countries especially India and Nigeria (Patwardian, 2015). This has given rise to calls for more stringent measures to be employed to ensure that quality is not comprised for quantity. In line with these calls, some universities are beginning to adopt journal Impact factor (IF) in assessment of the research output of their faculty members (Abbasi, 2004; Okoye, 2010).

Among the reasons advanced for this move is the fact that it will compel academics to carry out more meaningful and in-depth research that will make significant contribution to knowledge (Bordons, Fernandez and Gomez, 2002). However, questions are being raised about the advisability or otherwise of using IF for assessment of research output of academic staff especially those in the developing countries given the disparity among universities in terms of geographical location, financial imperative and other considerations which play a critical role in research and publication (Okoye, 2010; Chinamasa, 2014; Bordons, Fernandez and Gomez, 2002; Khan and Hegde, 2009; Casadevall and Fang, 2004). Motivation for this paper came from the researchers' observations of the reactions of academic staff of the University of Nigeria, Nsukka regarding the university administration's decision to adopt IF in assessment of the publication output of academic staff of the university.

As a measure to increase the quality and visibility of the academic staff research output, the University of Nigeria, Nsukka administration in 2006 came up with the idea of using the IF for assessment of academic staff. However, amidst stiff opposition from the academic staff, the idea was not fully implemented. Nonetheless, in March 2015, the university administration with the full consent of the University Council endorsed that academic staff of the university from the rank of Lecturer 1 to Associate Professor must not only be holders of a Doctorate degree but also show evidence of their research output by publishing in journals that are indexed by the following journal metric systems: Thomson Reuters Journal Impact Factor, SCImago Journal & Country Rank (SJR) and Source Normalized Journal Impact Per Paper (SNIP). In essence, unlike in 2006 when the idea was first mooted, the requirement was extended or liberalized to include other ranking systems. However, while SJR and SNIP are required, an individual must have at least half of his/her publications in Thomson Reuters' IF rated journals to qualify for assessment. The effective date of adoption of the new criteria for assessment was backdated to 2012.

For many academics, both SJR and SNIP are tolerable whereas Thomson Reuters Journal Impact Factor is unconscionable. It is noteworthy that the University of Nigeria, Nsukka is the first, if not the only university in Nigeria to implement the IF as a basis for assessment of academic staff (Okoye, 2010). To motivate academic staff, the university administration attached some monetary incentives for successful publication in highly rated impact factor journals. Notwithstanding the reasons and explanations given by administration or the incentives, this development has again been met with a lot of hue and cry amidst calls that the policy be thrown out entirely.

Objective of the study

The study generally, seeks to determine the views of academic staff on impact factor and the challenges to publishing and assessment of academic staff. To do this, the study is guided by the following objectives: to

1. Find out academic staff views on the use(s) of impact factor
2. Determine academic staff views on the demerits of IF
3. Ascertain academic staff views on barriers to publishing in impact factor journals
4. Determine academic staff views on the effect of IF based assessment on job
5. satisfaction, commitment and retention of academic staff

Literature review

The issue of how to measure publication output of faculty members in order to ensure quality and at the same time encourage high output is a present challenge to both the administrators of Higher Education Institutions and academic staff (Okoye, 2010). Two methods readily come to mind: publication count and citation count. Publication count has to do with counting the total number of publications emanating from individual academics. It means, for example, that the sum total of the research output of academics in a faculty constitutes its publication output irrespective of what article or journal an individual has published.

However, Zainab (1999) cautions that while publication count can be used in measuring publication output; it is fraught with errors because it does not concern itself with quality but rather quantity of publication. On the other hand, citation count quantifies both the usage and impact of cited works using citation analysis (Moed, 2002). One known method of citation count is the impact factor. Impact factor (IF) of a journal is defined by Ramsden (2009) as "the quotient of the number of citations received in that year by papers published in that journal in the two preceding years and the number of "citable" papers published in those years".

Although citation count appears to be a more reliable metric for assessing academic research output, it is a fact that only publications in visible peer reviewed journals can be accounted for using this method. Invisibility of most journals and other publications of researchers in developing countries is not in doubt as the literature shows that developing countries contribute less than 3% of the visible global literature (King; Ezema; Gray cited in Dulle, 2015). Thus, with the exception of a few universities in the developing countries, publication count is usually the preferred method employed to measure the publication output of their academic staff (Cole and Cole cited in Zainab, 1999).

As it stands, there are debates and varying opinions concerning IF both as a metric for measuring research output and as a basis for the assessment of academic staff. Much of this debate emanates from the developed countries. According to the proponents of the IF, it is a "…qualitative indicator which provides a measurement of the prestige and international visibility of journals" (Bordons, Fernandez and Gomez, 2002). The authors further state that "the IF of a certain journal is used as a proxy of the quality and expected impact of the papers published in it". In their submission, Khan and Hegde (2009) note the following advantages of impact factor: (a) It is sometimes useful to be able to compare different journals and research groups; (b) ISI's wide international coverage. Web of knowledge indexes 9000 science and social science journals from 60 countries, and (c) Results are widely (though not freely) available to use and understand. They are an objective measure, and have a wider acceptance than any of the alternative.

On the other hand, its opponents think differently. Along this line are those who argue that the IF was originally conceived as a tool to allow for comparison between citation rates of journals. In their view, it is more useful as an aid to librarians in making choices between journals for collection development purposes and researchers for management of journals (Garfield cited in Kurmis, 2003; Kurmis, 2003; Saha, Saint and Christakis, 2003). Other authors are of the view that IF is not fool proof as it is possible to influence it either intentionally or unintentionally (Mishra, 2009; Kurmis, 2003). It is also thought to favour science disciplines to the detriment of the social sciences as many more of the science journals are indexed (Mishra, 2009) and equally not balanced in terms of coverage in that only journals in the Thomson Reuters database are considered (Ramsden, 2009).

Giving other reasons, Casadevall and Fang (2014) contend that promotion of the IF undermines the value of research since it is more concerned with where the work is published rather than the content of the work itself. To Wheeler (2006) adoption of IF for assessment of academic staff does not give room for emerging journals to thrive especially the open access electronic journals since scholars feel compelled to publish in those journals with IF. In his view, this is inhibitory to scholars, especially junior scholars as they are not free to publish in alternative less expensive journals. The IF is also said not to encourage the growth of journals not written in English language thus, has the tendency to 'kill' native journals as researchers abandon them for the IF rated ones (Kurmis, 2003).

Lending his voice to the debate, Ramanathan (2004) posits that IF is discriminatory against

authors from the developing countries because they experience high rate of rejection of their works by editors in developed countries. In their explanation Dulle; Ezema cited in Dulle (2015) and Ajao & Ugwu (2011) observe the unfavourable research environment of most developing countries where scarcity of funds makes it difficult for most universities to subscribe to scholarly content of their choice. Instead, researchers are compelled to use what is available to them making it difficult for them to produce articles that may receive global recognition. In their submission, Armin and Mabe (2000) caution that "impact factor as one citation measure are useful in establishing the influence journals have within the literature of a discipline…they are not a direct measure of quality and must be used with considerable care". A careful look at the literature review shows that this is not a well-researched topic in the literature emanating from developing countries such as Nigeria. However, Okoye (2010) had investigated the use of IF for appraisal of academic librarians in Nigeria. While that study was conducted in the same area of study as the current study, it concentrated on librarians only. It is important to extend the study to other academic staff of the university to determine their views on the subject. This is the gap that this study attempts to fill.

Methodology

The study adopted a descriptive survey design. The study population was lecturers in the Enugu Campus of the University of Nigeria, Nsukka. Using purposive sampling technique, 250 lecturers from the rank of Senior Lecturer to Associate Professor were sampled for the study. The choice of purposive sampling technique was informed by the fact that these are the ranks that are affected by this requirement. The instrument for data collection was a questionnaire designed by the researchers. The questionnaire was divided into 2 sections: section A with 3 items sought general information on the gender, status and working experience of the respondents. Section B featured opinion statements and had a total of 16 items. The statements in the questionnaire, derived from literature, captured the uses, demerits, barriers and impact of IF in line with the objectives of the study thus: Uses: items 1-3; Demerits: items 4-9; Barriers: items 10-13 and Impact: items 14-16.

A four-point scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) was used to elicit the responses that most appropriately represented the view of respondents. However, for analysis of data, Strongly Agree and Agree were collapsed into Agree while Disagree and Strongly Disagree were collapsed into Disagree. To further elicit relevant information which the structured questionnaire may have missed, respondents were given room to make additional comment(s). To facilitate distribution and collection of the questionnaire, the assistance of lecturers within the faculties was engaged. The reason for this is that it was thought easier for such members of faculty to relate with their colleagues than an outsider. Altogether, 250 questionnaires were distributed. One hundred and eighty-five questionnaires were returned out of which 168 (67%) were properly filled and found useable. The results were analysed in line with the research objectives while the analysis of data was done using frequency counts and percentages.

Results

Table 1: Demographic profile of the respondents.

S/N	Demographic profile	No. of respondents	Percentage (%)
1	**Gender**		
	Male	99	59
	Female	69	41
2	**Academic Status**		
	Associate Professor	13	8
	Senior Lecturer	67	40
	Lecturer 1	88	52
3	**Working Experience (Years)**		
	5-10	55	33
	11-16	67	40
	17-22	30	18
	23 and above	16	10

Table 1 above shows that out of the 168 respondents, 99(59%) are male while 69(41%) are female. In terms of academic status of respondents, 13(8%) are on the rank of Associate Professor, 67(40%) are Senior Lecturer while 88(52%) are Lecturer 1. Furthermore, in terms of working experience, 55(33%) have worked for between 5 – 10 years, 67(40%) for 11-16 years, 30(18%) for 17-22 years and 16(10%) have worked for 23 years and above.

Table 2: Opinion statements on Impact Factor

S/N	Item	SA	A	D	SD
	Uses of IF				
1	IF was not originally intended for assessment of academics	58(35%)	44(26%)	40(24%)	26(15%)
2	IF is best used as a citation measure useful in establishing the influence of journals within the literature of a discipline	61(36%)	57(34%)	37(22%)	13(8%)
3	IF is a mere ploy by University administration to stagnate academics	52(31%)	46(27%)	40(24%)	30(18%)
	Demerits of IF				
4	IF does not recognise Journals with low circulation regardless of their scientific merit	62(37%)	58(35%)	37(22%)	12(7%)
5	IF is limited in terms of journal coverage (only journals in Thomson Reuters database are considered)	72(43%)	43(26%)	31(18%)	22(13%)
6	IF can be manipulated and so it is not a true measure of journal quality	45(27%)	44(26%)	51(30%)	28(17%)
7	IF is detrimental to the growth of local journals	72(43%)	51(30%)	36(21%)	-
8	IF undermines value of research because it is more concerned with where a work is published rather than the content of the work itself	74(44%)	39(23%)	36(21%)	19(11%)
9	IF compels researchers to publish in particular journals and is therefore inhibitory to scholarship	67(40%)	49(29%)	21(13%)	31(18%)
	Barriers to publishing				
10	Publishing in IF is difficult in an environment that has inadequate facilities to support quality research	79(47%)	61(36%)	21(13%)	7(4%)
11	IF favours academics in science disciplines more as their work stand better chance of being published	72(43%)	31(18%)	43(26%)	22(13%)
12	IF does not take book publications into account	45(27%)	63(38%)	51(30%)	9(5%)
13	IF journals are difficult to publish in because works from developing countries have high rejection rate	62(37%)	58(35%)	37(22%)	12(7%)
	Effect on job satisfaction, commitment and retention				
14	Failure to meet up on IF can affect the job satisfaction of academic Staff	61(36%)	40(24%)	52(31%)	15(9%)
15	Failure to meet up on IF can affect the commitment of academic staff.	66(39%)	44(26%)	37(22%)	21(13%)
16	IF has the potential to affect academic staff retention	25(15%)	27(16.0%)	65(39%)	51(30%)

Table 2 presents the responses to the16 item opinion statements. The four options have been collapsed into two: Agree and Disagree. Items 1-3 sought to find out academic staff views on the uses of impact factor. Responses to item number 1 shows that more of the respondents (102 or 61%) agree that IF was not originally intended for assessment of academic staff, while only 66 (39%) disagree. In the same vein, on item number 2, more of the respondents 118(70%) agree that IF is best used as a citation measure useful in establishing the influence of journals within the literature of a discipline. This is against 50(30%) who disagree to this. On the other hand, 96(57%) agree that IF is a mere ploy by the university administration to stagnate academics while 72(43%) disagree.

Statements number 4-9 sought to know respondents' views on the demerits of IF. On item 4, the table shows that 120(71%) are of the

view that IF does not recognize journals with low circulation regardless of their scientific merit. This is in contrast with only 49(29%) who disagree with the statement. On item number 5, (115 or 68%) agree that IF is limited in terms of journal coverage because only journals in Thomson Reuters' database are considered while 53(32%) disagree. The table further shows that 89 (53%) agree with statement number 6 that says IF can be manipulated and so is not a true measure of journal quality. This cannot be considered too significant since as much as79 (77%) disagree with the statement. Statement number 7: IF is detrimental to the growth of local journals has a significant number (123 or 73%) agreeing with the view and only 45(27%) disagreeing. 113 (67%) indicated agree on statement number 8 which says IF undermines value of research because it is more concerned with where a work is published rather than the content of the work itself while 55 (33%) disagree. Statement number 9: IF compels researchers to publish in particular journals and is therefore inhibitory to scholarship was indicated agree by more of the respondents (116 or 69%) while only 52(31%) disagree with this.

Statements number 10-13 sought to know respondents' views on the barriers to publishing in IF journals. Statement number 10: Publishing in IF is difficult in an environment that has inadequate facilities to support research had a very significant number of respondents (140 or 83%) agreeing while only28 (17%) disagreed. The responses to the statement number 11 which said IF favours academics in science disciplines more as their work stand better chance of being published shows that 103 (61%) agree while 65(39%) disagree. On statement number 12: IF does not take book publication into account have more of the respondents (108 or 64%) indicating agree and 60 or 36% disagree. 120 (71%) agree with statement number 13 which say that IF journals are difficult to publish in because works from developing countries have high rejection rate while 49(29%) disagree.

Statements number 14-16 focused on ascertaining respondents' views on the effect of using IF for assessment of academic staff on three work related behaviors: job satisfaction, commitment and retention. Statement number 14: failure to meet up on IF can affect the job satisfaction of academic staff had 101(60%) agreeing as against 67 (40%) disagreeing. On statement number 15: failure to meet up on IF can affect the commitment of academic staff 110(65%) agree while 58(35%) disagree. Finally, on statement number 16: IF has the potential to affect academic staff retention, only 52(31%) agreed while majority of the respondents 116(69%) disagree

Some respondents also made additional comments in the space provided. These include:

"Faculties and departments should be encouraged to establish journals where quality research work should be published without much financial and emotional stress to the academic staff";

"Whereas I agree that IF is good in itself, insistence on its use in assessing academic staff can end up affecting quality of output. Also, availability of the pre-requisite environment for publishing work acceptable to such journals is another issue that should be addressed";

"Lecturers should be encouraged to publish both in IF rated journals as well as other journals";

"There should be tutorials on how to publish in IF rated journals".

Discussion

The findings of the study on the uses of IF as addressed in 1-3 shows that most of the respondents agree with all the statements and suggest that respondents are of the view that the IF is being used for purposes that negate its original intention. This is in line with the views expressed by Garfield cited in Kurmis, 2003; Saha, Saint and Christakis, 2003; Armin and Mabe, 2000).

Similarly, the findings on 4-9 shows that most of the respondents agree with the statements rose as constituting the demerits of the IF. These agree with the views of Mishra (2009); Engle and Molly (2006); Ramsden (2009); Casadevall and Fang (2014) and Kurmis (2003).

The findings on 10-13 also show that most of the respondents agree that the factors raised in the statements constitute barriers to publishing in IF rated journals. It is instructive to note the very high numbers who agree that IF is best used in assessment in those environments that have facilities to support quality research. This suggests that a significantly high number of respondents are of the view that the current state of facilities in the university environment is not quite supportive of quality research. This is further highlighted by the additional comments

made by some respondents. This supports the views expressed by Dulle; Ezema cited in Dulle (2015) and Ajao & Ugwu (2011). It is also noteworthy that that respondents see IF journals as difficult to publish in because works from developing countries have high rejection rate. This supports the views of Ramanathan (2004) and Kurmis (2003). However, this is hardly surprising because if there are inadequate facilities for quality research, then the submissions from such environments will hardly compete favorably in the global publishing arena considering the deluge of papers coming in from different parts of the world and the very stringent editorial process involved. This may also be the reason many academics prefer to publish in journals where such stringent editorial review process is not practiced and therefore gives their paper a fair chance of being accepted and published (Okeke, 2013; Patwardhan, 2015).

On the findings on the effect of IF on job satisfaction, commitment and academic staff retention as captured in14-16, it is instructive to note that although the respondents are of the view that adoption of IF can potentially affect job satisfaction and commitment of academic staff; yet the result shows that it is viewed as having little effect on academic staff retention. This may not be unrelated to the fact that in Nigeria employment in a federal institution is considered more desirable especially in terms of job security and status. It may also not be unrelated to the high unemployment rate in the country.

Conclusion

Research and publication are a necessary part of academic life. This is because of their importance to researchers, higher education institutions, society and the development of the body of literature in professional fields. However, it is more important that quality in-depth researches and publications that will contribute to knowledge are produced. The impact factor has come as a means to assess the academic output of academic staff. To that extent, career advancement of academic staff to a large extent depends on successful publishing in impact factor rated journals.

The findings of the study show that the respondents are not favorably disposed to the issue of adopting IF for academic staff assessment. In their view IF is better used for assessment in an environment that is supportive of research. Concerns that IF is detrimental to the growth of the local journals and the perceived high rejection rate of journals from developing countries are also expressed. The findings also show that other areas of high concern have to do with the view that IF does not recognize journals with low circulation regardless of their scientific merit and that IF undermines value of research because it is more concerned with where a work is published rather than the content of the work. The findings further reveal that IF can potentially affect job satisfaction and commitment of academic staff though it has a marginal negative effect on academic staff retention.

Implications

There are implications arising from the findings of the study. There is no doubt that quality research is necessary for the growth of scholarship and to that extent must be encouraged among academics. However, the environment has to be supportive of research to enable academics carry out quality research that will be accepted for publication in IF rated journals.

The implication is that the university administration must first provide a research supportive environment by ensuring that academic staff have access to needed print and electronic resources that will make research writing less stressful. It is also important that the laboratories be adequately equipped for quality research activities. To this end, the university administration should make more funds available for library development and provision of adequately equipped laboratories. Also, academic staff should be sponsored to workshops that will equip them with skills in research and writing.

There is also the expressed worry that insistence on IF is detrimental to the growth and development of the local journals if academic staff abandon them for the mostly foreign based IF rated journals. To avoid this, there is need that the local journals be supported in their development and given a boost to migrate to IF level. It is also imperative that more stringent editorial review process should be adopted by the editorial boards of local journals; production sustained and coverage extended beyond the immediate local environment or country by ensuring that the journals are indexed and made more visible globally. If these challenges are addressed, academic staff may be in a position

to engage in more meaningful research capable of being published in impact factor. By so doing, their career will be enhanced, as well as their global visibility and that of the university too. If on the other hand the challenges are not addressed, researchers from the developing countries will be perpetually dependent on foreign based journals thereby hampering the growth of the local journal publishing houses.

The limitation of this study stems from the fact that it concentrated only with finding out the views of academic staff in one of the two campuses of the university. Additionally, the researchers failed to conduct a citation analysis of the research output of academic staff of the university to ascertain the level of global visibility. Future research attention may focus on these areas.

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