

Publish in Impact Factor or Perish: The Dilemma of Pakistani Researchers and Coping Strategies

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Abstract

The background of this research is the Higher Education Commission's (HEC) revised criteria regarding publishing in social science journals. Under the new criteria, only publication in journals covered by Thomson Reuters' Impact Factor (IF) and some national journals will be recognized by HEC for promotion and securing tenure in higher education institutes in Pakistan. This study aims to find the perception of PhD faculty in social sciences about the revised journal criteria, its effect on the faculty and the strategies employed by PhD faculty to publish their research. Data were collected through 65 semi-structured interviews from PhD faculty randomly selected from five universities in Islamabad. The interviews were thematically analyzed. There was a growing concern in faculty members over IF criteria for assessing research quality. Participants perceive failure to publish in IF journals as a major source of psychological stress and frustration. The participants discussed different strategies for getting their papers published to secure their tenure.

Key words: Impact factor, higher education, research challenges, research output, tenure

Introduction

Impact factor (IF) was introduced by Garfield in 1955 to help librarians choose journals for library.¹ However, over time it became a marker of quality and a standard for judging both the authors intellectual output as well as the journal.² It is debatable whether such a system of citation count might be a good indicator of quality of an authors' intellectual work or the journal. IF assumes that research papers published in high IF journals are superior than those published in low IF journals.³ This is where the

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concern of the researchers begins.⁴ There is substantial controversy over IF as a sole determinant of quality of a research publication.⁵

The Higher Education Commission (HEC) of Pakistan is a federal agency that regulates higher education in the country. The government of Pakistan initiated a radical policy to revamp higher education and research almost two decades ago. HEC introduced the Tenure Track System (TTS) for fresh appointments as well as a system for transferring the existing faculty on TTS. The faculty members hired on TTS is offered higher pay scales based on the condition that they would meet some specific research publication criteria and publish, at least two research papers per year in HEC recognized journals. Science majors were expected to publish in Thomson Reuters IF journals while those pursuing social sciences could publish in any international journal that was recognized provided it was covered by Ulrich Periodical Directory. However, HEC revised its criteria for recognition of international journals in social sciences in 2012. Under the revised criteria, social science or humanities majors are required to publish their research either in Thomson Reuters IF journals or some national journals recognized by HEC for maintaining quality. This revision strengthened the publish or perish policy for researchers.⁶ There appears to be a few benefits of the HEC's revised criteria, such as, increase in research quality, academic excellence and a measure for promotions.⁷ However, the policy of valuing only IF publication has restricted academic freedom and resulted in encouraging researchers and universities that focus on citation count rather than undertaking innovative and in many cases indigenous research that could benefit local communities.⁸

The HEC revised journal criteria has raised serious concerns among researchers in the social sciences. For some researchers, there are limited or very few research journals in their subject areas making it difficult to publish in IF journals. These subject areas include Pakistan studies, Islamic studies, Ethics, and the study of regional languages, such as, Pashto, Sindhi, and Punjabi etc. In this situation, using IF as the only criteria for quality research may lead to research suffocation rather than success.⁹ A major concern about IF is that it is published by a private company for profit which can be manipulated in several ways.¹⁰ It is used to support decisions related to securing tenure and promotion and for granting research funds.¹¹ This has produced an IF mania to publish in these journals only. Moreover, faculty members provide several reasons for not publishing in IF journals. This includes poor research background, limited financial

resources, lack of support and/or mentorship from senior colleagues and a busy work schedule.¹²

Moreover, IF is not even an accurate tool for truly ranking journals rather; it is deeply flawed, incomplete and a noisy predictor for measuring the quality of research article.¹³ Moreover, the bulk of IF publications fall in the science domains and there are fewer publications in the social science disciplines in Pakistan (Table 1). One reason may be that science journals in Journal Citation Reports (JCR) are almost three times more in number than social science journals and are therefore, underrepresented in Thomson Reuters.¹⁴

Table 1: Research output in Thomson Reuters IF journals in the last three years:

Name of University	2013	2014	2015
COMSATS	726 (26 in social sciences)	947 (34 in social sciences)	1237 (41 in social sciences)
Quaid I Azam	832 (14 in social sciences)	982 (11 in social sciences)	999 (7 in social sciences)
ARID Agriculture	174 (0 in social sciences)	197 (2 in social sciences)	158 (2 in social sciences)
Iqra	15 (5 in social sciences)	14 (3 in social sciences)	10 (4 in social sciences)
National University of science and Technology	326 (1 in social sciences)	432 (6 in social sciences)	554 (12 in social sciences)
Total	2073 (46 in social sciences)	2572 (56 in social sciences)	2958 (66 in social sciences)

Source: Thomson Reuters Web of Science 2016¹⁵

The disparity between the number of publications in the social sciences as compared to the total number of publications in sciences listed in Table 1 is evident. The data clearly shows that it is very hard to publish in IF journals in the social sciences. The difficulty to publish in Thomson Reuters IF journals and HEC's persistence to recognize these journals for securing tenure, providing research grants and promotion is received with serious reservations by social science researchers. The present research, therefore, aims to explore the perceptions of concerned faculty members about HEC's revised journal criteria for the social sciences and humanities, and the effects caused by the revised

criteria as the only tool for recognition of international journals in Pakistan Research Questions

The following research questions guided this study:

1. How PhD faculty members in the social sciences and humanities perceive the HEC revised criteria to publish in Thomson Reuter's IF journals?
2. How the HEC revised journal criteria for publishing in Thomson Reuters IF journals are affecting PhD faculty members?
3. What strategies are the PhD faculty members in the social sciences and humanities employing to publish in order to meet their tenure requirement?

Methodology

This study used qualitative method for collection and analysis of data. Qualitative data is helpful in getting an in-depth understanding of the feelings, experiences and perceptions of participants.¹⁶ Qualitative research allows researchers to explore rich and thick descriptions to understand complex phenomenon, the context in which they occur and the meaning making process.¹⁷ The population was comprised of all the PhDs in Pakistani universities. However, the data for this study were collected from five universities in the federal capital of Pakistan. The reason for choosing different universities was to collect sufficient data about the research questions and understand the research problem from a wider as well as a deeper perspective. Purposive sampling technique was used to select the relevant sample from universities. Faculty members with a PhD degree in any social science subject and working on tenure track system were the set criteria for selecting sample. Tenure track system requires a strong emphasis on research publication to secure tenure and was thus the most relevant sample for this study. Data were collected through interviews with participants based on their availability and after receiving informed consent. The sample consists of 31 male and 44 female PhDs. The interviews were semi-structured and a basic interview guide was used to allow faculty members to freely express their perceptions, experiences, concerns and biases. The interviews were audio recorded and later transcribed. The total number of recorded interviews were 65 with 13 interviews from each university.

Data Analysis

The interview data were thematically analyzed. The first step in the analysis was to transcribe all the recorded interviews. For each

question, the responses were carefully read several times to identify key concepts and themes. The interview data set from recorded tapes were also carefully noted to observe for stresses, frequency, emphasis and pauses. The large amount of data set was finally condensed into a few well-defined themes for each research question. The frequency of responses was also counted and converted into percentages to help in understanding the magnitude of responses in each theme. Pseudonyms are used for participants instead of their actual names.

Results and Findings

Q1. How PhD faculty members in the social sciences and humanities perceive the HEC revised criteria to publish in Thomson Reuter's IF journals?

The participants expressed their concern over HEC's criteria for recognizing Thomson Reuter's IF journals as the only indicator of research quality. The PhD faculty expressed that IF is a bibliometric index which can be manipulated by journals' editors.

Bibi [a female participant reported to have published more than 20 research papers]: "It is not justified to ignore other journals which have good quality but are not covered by Thomson Reuters". A similar argument was put forward by other participants complaining that HEC's revised journal criteria is creating monopoly of a specific group and will harm the scholarly reputation of many journals not covered by Thomson Reuters. This was a strong argument because many faculty members said that they are obliged to read Thomson Reuter's journals if they desire to publish in these journals. Huma, a senior faculty member who claimed to publish in IF journal said, "when I access digital library, I focus on downloading relevant literature from web of science. This is one *key* (emphasis added) to publish in these journals". This was a relevant argument that is somehow link to citation count for indexed journals. Another participant expressed similar reservation that "HEC is curbing my research initiatives by restricting me to publish in some specific journals for knowledge dissemination". Suggesting a solution for the problem under discussion, some participants proposed that there are other agencies that keep a more scientific measure of citations and the impact of a research publication. This includes the database covered by Scopus which is more systematic and exhaustive. Scopus covers more journals as compared to Thomson Reuters and most of the journals are in JCR. The HEC in consultation with

universities should accept publications covered by Thomson Reuters and Scopus. It seems that the PhD faculty in social sciences has serious reservations about linking research quality with publication in only Thomson Reuter's journals. This convinces majority of the participants to include journals covered by Scopus in the list of HEC recognized journals. Some faculty also said that it is not easy for them to find the details about JCR journals, their IF and other bibliometric influences as they are not open access journals. In comparison, the bibliometric details can be easily searched and accessed for journals covered by Scopus.

Most of the participants strongly resented HEC's decision for adopting the same criteria for sciences and social sciences. The faculty expressed that the results and findings in pure sciences is objective, fixed and concrete. However, social sciences deal with individuals, society, beliefs, values, and perceptions that are open to criticism and subjectivity. The participants further opined that to measure the publications in both disciplines with the same yard stick of IF is unfair and inappropriate.

Some faculty members complained that the editors of IF journals are biased towards the researchers working in developing countries. They believed their research was not considered by editors, perhaps that research from developing countries might not attract the citation chain necessary for improving journal's ranking. For example, Sumbal, a young female faculty said: "Whenever I submit a paper for review, I receive a regretting email from the editor about my research not appealing to the international readers." Expressing his disappointment on the same issue, Hamza [a fresh graduate in Education] said: "my paper will never get publish in IF journal because the readers in the West is not interested in the problems of *my school, my method and my students* (emphasis added)". These responses reflect frustration of participants against the HEC's revised criteria which is believed to be bias towards social science faculty members.

However, it might be the high-quality criteria of IF journals with respect to language proficiency, originality, applicability etc. which might be responsible for rejection of research papers submitted from developing countries. This was reflected in the responses of some participants expressing that JCR journals have very tough criteria for paper acceptance. They take longer duration for review and most of the time they simply reject the paper without considering it.

In comparison to the views of the majority of participants in this study, there were some faculty members who supported

JCR journals. Three faculty members who argued that aiming at JCR journals will help us improve our research capabilities. Two of the participants recently graduated from US universities. One of them remarked, “The HEC revised criteria is a good approach; otherwise there are too many international journals which just take money and publish papers”. A very true statement keeping in mind the growing number of online journals in recent years inviting call for papers and publishing low quality research papers on payment. A question that emerges here is: How to judge a journal’s quality without using the yardstick of IF? A hard but relevant question that needs to be further research upon. The different themes that emerged from the first research question are given in table 2.

Table 2. Perception of PhD Faculty about Impact Factor Journals

Response Themes	% of respondents
IF does not reflect quality	64
Other databases be included	59
Monopoly of one group	55
Unjust with social science disciplines	51
Local research is discouraged	48
JCR is not open access	39

Q2. How the HEC revised journal criteria for publishing in Thomson Reuters IF journals are affecting PhD faculty members?

The PhD faculty members expressed that they are facing immense psychological stress due to their perceived inability to get publish in IF journals. They feel no prospect of getting promotion in their field. The worse is the perception that they will not keep even their existing position for failing to fulfill HEC requirement of publishing two research papers per year in either IF journals or national journals. Tuba, a young faculty reported to coming from a rural background said, ‘I am very worried about my job security despite having PhD degree’.

Nasreen: “I feel lots of pressure to publish in IF both from HEC and my own university.” These statements show the level of anxiety and depression faced by the participants due to fear of losing their jobs.

Majority participants also said that IF criteria are restraining them from exploring indigenous problems around their environment and making them look for global trends through top cited or most downloaded articles. The result is replication of studies and citation. There was sufficient diversity in the views of

participants based on age. Some of the fresh and young PhDs claimed that they will publish in IF journals once they complete their ongoing research. It seemed that the young PhDs were more confident about their research potential. They were of the view that the senior faculty members use traditional approaches and their selection of research topic is not appealing to IF journals. Whereas, senior participants argued that the newly graduated PhDs will realize the reality after getting a few rejections. The important consideration here is that the majority of these fresh PhDs graduated from foreign universities in Europe and US. However, we further found that senior PhDs graduated from foreign universities were also struggling to get published in IF journals and were having no IF publication as reported by them.

Some of the participants argued that when they submit their paper to IF journal, the editors return it with tactful comments expressing its unsuitability for international readers, scope of the journals or questioning its quality. After several rejections, the researchers feel demoralized and professionally incompetent to pursue quality research. Najma, a young female participant remarked. Presently, the HEC criterion has no effect on me but I feel it will affect me in coming years if I get no acceptance in these journals. This statement clarifies that participants receiving rejections from journals feel different than those who have submitted but so far did not receive any rejection and/or those who plan to submit to IF journals once they complete their write-up. Some of the participants reported that they feel as if they have a poor research background and were not properly mentored by their supervisors in conducting quality research. Jamil, a young PhD graduated from indigenous university said, "My supervisor has not prepared me well in research". Shama: "Even my supervisor has no IF publications, so how can I?".

This seems to be a discouraging but true remarks. Most of the supervisors in social sciences may not have IF publications because the revised journal criteria are effective since 2012. The senior professors have international publications that were acceptable to HEC at the time they were published. However, at present, the senior professors in social sciences have serious reservation about IF journals and they advise their students not to consider impact factor but the impact of their research. However, it is again worth concern that such publication though having an impact but without IF would not be acceptable to HEC; and finally resulting in burnout and frustration in faculty members. The percentages of themes are given in table 3.

Table 3: Impact of HEC Revised Criteria on PhDs

Response Themes	% of respondents
Discouraging local research and problem	59
Psychological stress	53
Demoralization and frustration	46
Fear of job in-security	44
Feeling of professional incompetency	31

Q3. What strategies are the PhD faculty members in the social sciences and humanities employing to publish in order to meet their tenure requirement?

Most of the participants shared that they are submitting their research papers to those national journals that are recognized by HEC. They feel that publication in other journals is wastage of one's research as it is not given any credit by the HEC. Karim [a faculty member in Psychology and no IF publication]: "Currently, I am focusing on HEC recognized Pakistani journals only as my experience with international journal is only rejection".

Khan: "I try to publish my papers in IF journals to fulfill HEC's requirement however, if I feel that my research is entirely local in nature and international readers would have little interest then I submit it in HEC recognized local Journals".

At least, the faculty members have found a way out to fulfill HEC requirement. Though publication in national journals may not have the reputation like IF journals, but at least, they are recognized by HEC for promotion and giving grants.

Perceiving the difficulty encountered in publishing research paper in HEC recognized journals has increased the cult of ghost co-authorship in university faculty members. Some participants expressed very frankly that they add their friends as co-authors in their research on the pretext that they will add him/her as a co-author in their work. One of the faculty member remarked, "IF journal is difficult to publish, while the national journals are very few, so I add several authors with mutual understanding that they would add me as well". This is one way in which a researcher claims to be author in several research papers for securing tenure and/or for promotion purposes. It is not unusual to see multiple authors in research papers in recent years, a phenomenon solely attributable to HEC revised criteria.

Another approach used by the faculty member is to extract multiple research papers out of their thesis/dissertation. The thesis/dissertation is mostly related to issues or problems of national, regional or local nature/interest which has little appeal to IF journals. The researchers thus focus on submitting their work to national journals. Usually, three to four research papers are taken out of PhD dissertation however; in some cases, the researchers publish more than seven research papers out of their dissertation by adding updated literature review and updating discussion section. Once a considerable number of papers are developed from PhD dissertation, the next stage is to repeat the same with their students' thesis.

On the positive side, the HEC revised criteria has also improved quality of research. The faculty members know that whether they submit their research to national or IF journals, they will get acceptance only on the basis of quality. A poor-quality research will lead to wastage of time and resources; and its publishing will still be uncertain keeping in mind the fewer number of national journals and large number of research submission. Some participants expressed that they work hard to ensure the quality of their research work. They set high target by aiming at high IF journals which improve their quality of research. Even if their research paper does not get acceptance in these journals, their research is at least accepted and credited by journals with low IF or by national journals.

The participants that obtained their PhD degree from advanced countries share that they are keeping close research collaboration with their foreign supervisor, classmates, friends and other researchers in European and US universities. They expressed that the research expectations can be fulfilled through such mutual collaboration and joint endeavor. However, it has seriously impeded such research endeavor within national universities and among faculty members who graduated from indigenous universities.

Some faculty members expressed that they are participating in various seminars, workshops and research trainings that focus on how to publish in IF journals. These trainings and workshops are costly and the participants are trained in understanding the international trends, the top cited articles and various tips and techniques to get publish in IF journals. These trainings have some utility as well when they stress on reading quality journals in a systematic manner and how to identify the knowledge gap and research methodologies. Ali [a young faculty

member having no publication]: “I will try to learn from those who publish in IF journals”. However, some participants expressed that they did not benefit from these research trainings and workshops. Najma, a young female participant said, “I have spent thousands of rupees on registration fee, but still I am not successful in getting published in IF journals”. This is an honest view as mere participation in training/workshops does not guarantee publication in IF journals. The percentages of strategies themes used by PhD for publication is given in table 4.

Table 4: Strategies used by PhDs for Securing Tenure

Response Themes	% of respondents
Submission in national journals	86
Cult of ghost co-authorship	71
Improving quality of research	66
Extracting multiple research papers from dissertation	47
Research collaboration with foreign supervisor, researchers	31
Capacity building through workshops/trainings	28

Discussion and Conclusion

It seemed that the participants were not satisfied with the HEC revised criteria for recognition of international journals in social science disciplines. They expressed that publication in Thomson Reuters is not an indicator of quality of a research paper. This reinforces that IF is not a reliable yardstick to assess quality of research.¹⁸ Moreover, these bibliometric measures and IF calculation does not determine research quality though it has assumed a de facto role in ascertaining the quality of journal at present.¹⁹

Participants expressed that the IF journals attract themes and topics which encourage citations. This is usually done by the editors to increase journal ranking. Most of the time, this discourages research focused on local problems which do not find suitable consideration with the journal editors. Although, the main function of a journal is to publish and spread scholarly knowledge, the use of journals for measuring quality of research, for deciding promotion, funding and appointment is secondary however; it has become the most important indicator due to the commercial nature that the knowledge has assumed at present.²⁰ The editors manipulate IF through encouraging manuscripts with potential of attracting citations rather than publishing innovative researches and exploratory studies.²¹ Even, the local problems and issues are

not welcomed by the editors of IF journals.²² In addition, the research related to history, culture and vernacular languages are not adequately covered by web of science which is also reported the participants in this study.

Participants suggested other alternatives to Thomson Reuters which includes considering SCImago journal ranking (SJR) and source normalized impact per paper (SNIP). The same is reported by the study of Franchignoni et al.²³ The advantage of these bibliometric measures is that they are open access and are taken from Scopus database covering over 17000 journals which are greater than covered by JCR.²⁴ Further, SJR has the advantage of measuring the influence per paper published in a journal unlike Thomson Reuters' journals.²⁵

The failure to publish in IF journals have resulted in psychological stress and frustration among social science researchers in Pakistan. This supports findings by Onowakpor and Tiemo that the failure to produce research output is resulting in faculty frustration and career stagnation.²⁶ This further leads to high level of stress and burnout in the community of researchers.²⁷

Moreover, the young PhD faculty in the social sciences is extremely worried from university's expectation to publish in IF journals from the very start of their career. This high expectation has put the career of these researchers in the hands of blind reviewers. In fact, the faculty is facing career stagnation and frustration due to failure to publish in IF journals.²⁸ Facing the blunt of frequent rejection from these journals, the faculty members start submitting their research to national journals. However, there are various limitation of submitting to national journals such as less number of journals in social sciences, less number of journal issues in a year (mostly biannual), large number of submission to national journals, poor correspondence of national journals with the corresponding author, favoritism in review and publishing process, excessive long duration of review time and waiting period for actual publishing of accepted papers in the journal. It is suggested that the national journals shall improve their correspondence with the authors, set time frame for review and minimize the gap between submission and publication of research.²⁹

Despite the drawbacks mentioned above, the researchers are relying on national journals. However, submission to national journals have come under high pressure. There are only 48 journals in social science disciplines, six in multidisciplinary and five in business education that are recognized by HEC for fulfilling the

criteria for securing tenure and promotion purposes. This is a small number which is recognized by HEC. The problem with publication in national journals becomes more acute keeping in mind the relevance of subject scope for publication. Thus, the researchers are left with just a few journals that are relevant to their research area.

One way to fulfill the requirement of research publication is the growing trend of ghost and multiple co-authorship who do not have any actual contribution in the research. The trend of multiple authorship is also found by Foo and Young.³⁰ The shift from single authorship to four authors or more during the start of present century is a positive trend indicating increasing collaborative research.³¹ However, it is debatable whether this can be taken as real collaboration or gift authorship.

The researchers have become more interested in the number game of citations and IF than the impact of their research. This makes the researchers target journals with high IF.³² They further found that IF has killed researchers' initiative and is making the future research less relevant to industry and society by involving the researchers in a craze for citing and to be cited.

It seems that HEC introduced the revised criteria for social science disciplines in a haste. IF was introduced to help the librarian choose journals that were read and cited more. Even Garfield, the pioneer of IF said that it is not suitable for ranking research publication.³³ IF is the most controversial issue to use for judging quality of research instead of citation of actual research paper. There is a need to reverse the adverse effects of IF mania for which the scientific community shall strive together.³⁴

One option may be to relax the condition of IF for newly appointed researchers to provide them time to develop their research potential and research infrastructure. The minimum requirement for journal during initial few years shall be peer reviewed journals. But this is a debatable issue and needs to be further explored for future implications. Another approach for social science disciplines without compromising on research quality could be to take the sum of IF given by Thomson Reuters and Scopus. If a journal is covered in both the databases, then the author will get a high IF in ascertaining his/her case for promotion purposes. If a journal is only covered by one database but not by other, then the author will get a lower IF. However, the publication will be considered as recognized by HEC for promotion and securing tenure.

A third alternative is to dissociate research publication from IF requirement. The choice shall be with the researchers to submit their research to IF or without IF journals. The research by Notkins supports the same and asserted that the universities shall stop evaluating faculty's research through IF publications.³⁵ This shall be backed by the editors of professional societies mutually agreeing on not to use or advertise the IF of their journals. Moreover, IF shall be renounced and replaced by a universal metric which is 'precise, reproducible, and openly-available.'³⁶

LIMITATIONS

This study involved PhD faculty on tenure track status in social science and humanities subjects and thus the results cannot be generalized to faculty in science disciplines. Moreover, the data used for concluding results were collected from five universities in the federal capital, Islamabad where the top ranked universities are located with greater research facilities and higher research output as compared to universities in provinces where the faculty views and approaches may be different and needs to be further explored.

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