PROMOTING ETHICS AND INTEGRITY IN MANAGEMENT ACADEMIC RESEARCH: RETRACTION INITIATIVE

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ABSTRACT

In management academic research, academic advancement, job security, and securing of research funds in the university are judged mainly by the outputs of publications in high impact journals. With bogus resume filled with published journal articles, the university and other allied institutions are keen to recruit or sustain the appointment of such academics. This often leads to undue pressure on the parts of the intending academics or those already recruited to engage in research misconducts. This structured review therefore focuses on the ethics and integrity issues in management research via the analysis of retracted articles within a period of 2005-2016. This study employs a literature review methodology. In 2017, the database (Crossref and Google scholar) of retracted articles published between 2005 and 2016 in the field of management science were searched by using Boolean strings such as retracted articles in management, notice of retraction in management science, research ethics, and plagiarism in management research. The searched articles were subsequently streamlined by choosing the articles based on their relevance and content in accordance with the inclusion criteria. Based on the analyzed retracted articles, the study shows that there are evidences of unethical issues among researchers in management science. The unethical issues identifies include data falsification, duplication of submitted articles, plagiarism, data irregularities and incomplete citations. Interestingly, the analyzed results indicate that knowledge management has the highest number of retracted articles with plagiarism as the predominant ethical issues. Also, the findings from this study indicated that unethical misconducts are not restricted to a particular geographical location but cut across different countries. However, it is more prevalent in some countries compare to others.

Key Words: Ethics; Integrity; Misconducts; Knowledge management; Structured review analysis
INTRODUCTION

Ethical principles and integrity culture development are not new in management academic research (Robertson, Blevins, & Duffy 2013). According to the editorial comments of Kacmar (2009) in Academy of Management Journal and Schminke (2009) in Academy of Management Review, unethical research misconduct is a mounting concern among academic management researchers. Academic research integrity and ethics points to the trait of possessing and faithfully sticking to high moral values and professional requirements, as outlined by professional organizations, research institutions and, when relevant, the government and public (Steneck 2006). Drawing from Anderson, Shaw, Steneck, Konkle & Kamata (2013), both are the motives for continued investment in management research and reliance on its scientific findings for respective management decision-making purposes. Nevertheless, there have been confirmed cases of research misconduct in management academic research (Schminke & Ambrose, 2011). According to Federal Policy on misconduct (2000), research misconduct is referred to as the fabrication, falsification, or plagiarism in putting forward, carrying out, or evaluating research, or in stating research results. As further buttressed by Anderson et al. (2013), uncovering research misconduct entails a meaningful deviation from accepted practices of the relevant scientific community in any article. Retraction of the affected article(s) in most cases is one of the consequences of confirmed and duly investigated questionable research practices or misconduct. Thus, in this study, retraction of articles resulting from research misconduct is seen as a way of fostering responsible conduct of academic research in management.

Retraction initiative by journal publishers is poised to promote good research ethics among authors, enhance integrity in the publishing business, aid future authors’ from facing consequences of retraction and also to minimize the risks associated with basing decisions on unretracted articles that violates research ethics by users. However, ethics and integrity issues culminating in retraction of articles are unresolved issues in management sciences (Honig & Bedi, 2012). Moreover, unlike basic medical sciences, little attention has been paid to research misconduct issues in management academic research and publications employing structured analysis (Pinho, Rego, Pinae & Cunha 2012). Hence, this paper focuses on management academic research ethics and integrity issues using a structured analysis based on retracted articles. The study is structured to begin with a predetermined question as follows:

RQ1. How is academic ethic and integrity issues in management research developing?
RQ2. What is the future direction for academic ethic and integrity issues in management research?

Followed by overview of research misconducts, next is the research methods, then results and discussion, the implications from the study and lastly, the conclusion.

OVERVIEW OF RESEARCH MISCONDUCTS (ETHIC AND INTEGRITY ISSUES)

According to Steneck (2006), research is mainly an expert activity as it is carried out and in part guided by individuals who have been specially taught to conduct research. One of the primary functions of the university is to inspire the quest for research. This obligation can be achieved through the cooperation of individual member of the academic community to conduct
oneself in an ethical manner devoid of misconducts. Hence, every member of the university community (staffs and students) is obliged to promote an environment which does not tolerate misconduct but encourage intellectual honesty and integrity. According to Fang, Steen, and Casade, (2012) research misconduct accounted for majority of the retracted journal articles. Based on the definitions proposed by the Federal Policy on misconduct (Bird & Dustira, 2000), the three main components of research misconducts include fabrication, falsification and plagiarism and they are further explained as follows: Fabrication refers to an act of making up data or results, and recording or reporting them; Falsification refers to a process of manipulating research materials, equipment, or procedures, or changing or omitting data or results such that the research is not accurately represented in the research record; Plagiarism means the appropriation of another person’s ideal, processes, results, or words without giving appropriate credit. However, the definitions do not include honest error or honest differences in interpretations or judgments of data (Anderson et al., 2013).

Stemming from the work of Robertson et al. (2013), research misconduct in the university is awfully disturbing and has become a worrisome issue among stakeholders and educational policy makers. This is due to the adverse effects of its occurrence on standard and integrity of research outputs as well as the degrading reverence in which academics is viewed by the public, government and the sponsors of academic research. Nevertheless, some of the flimsy reasons adduced for such unethical conduct by researchers like Harley et al. (2014) are work pressures and the eagerness to meet key performance index (KPI) in the field of academia. Besides, the increased pressure on academic researchers to publish in highly-ranked journal is another excuse as further indicated in Harley et al. (2014). Consequently, a stiffen competition and pressure to publish according to Corbett et al., (2014). It is worthy to emphasize that all these plausible excuses aforementioned are not justifiable for research misconduct. Even though research success is attached to the number of publications in highly-ranked journal, researchers should not engage in unethical conducts and rationalize their engagement in such act.

**METHODS**

**Journal Searching**

In this paper, literature searching adhered strictly to the selection criteria already set out to answer the pre-determined questions and to minimize selection bias. Electronic database such as Crossref and Google scholars were searched using the following Boolean string as inclusive criteria in accordance with Fanelli (2009): Retraction journal in management science; notice of retraction of journals in management science; misconducts in management; research integrity in management science; fabrication and falsification of results in management science. During the first search, a total of 8,599 journal articles were displayed. The search was further streamlined to article published between 2005 and 2016 with the main captions reflecting retractions in different aspect of management science such as accounting, business ethics, supply chain management, knowledge management, project management, human resources management and quality management with the search results yield a total of 272 articles. The 272 articles were further streamlined using the key focus of the manuscripts as indicated in the title and the abstract. A total of 50 articles which cover accounting, business ethics, supply chain management, knowledge management, project management, human resources
management and quality management were obtained. These articles were subsequently categorized as shown in the next session.

**Grouping of journal article**

A total number of 50 journal articles with focus on accounting, business ethics, supply chain management, knowledge management, project management, human resources management and quality management were found to contain retraction or retraction notice between the year 2005 and 2016. These journals were subsequently grouped to reflect the focus of the retracted articles, the theme and the location of the university in which the studies were carried out as shown in Table 1.

**Category 1 - Focus of the retracted articles**

Each of the 50 retracted journal articles were analyzed in order to identify their focuses. In all, seven focuses, namely, accounting, business ethics, supply chain management, knowledge management, project management, human resources management and quality management were identified from the analysis of the retracted journal articles.

**Category 2 - Theme of the retracted articles**

The articles were also analyzed based on the retraction theme (i.e. the main reason for the retraction of the published articles). The main themes identified from the retracted articles are data falsification, duplication of submitted articles, plagiarism, data irregularities and incomplete citations as well as technical errors in the articles.

**Category 3 - The location in which the studies were carried out**

The retracted articles were further analyzed in order to identify the location of the university in which the studies were carried out. Based on the analysis, the following country countries were identified: Germany, China, Iran, Libya, Malaysia, Taiwan, Thailand and the United State of America (USA).
Table 1: Categorization of the retracted journal articles

<table>
<thead>
<tr>
<th>Focus</th>
<th>Number of articles</th>
<th>%</th>
</tr>
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<tbody>
<tr>
<td>Accounting</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Business ethics</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Supply chain management</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Knowledge management</td>
<td>36</td>
<td>72</td>
</tr>
<tr>
<td>Project management</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Human Resources management</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Quality management</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number of articles</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data falsification</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Duplication of submitted articles</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Plagiarism</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Data irregularities and incomplete citation</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Technical errors in the article</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location</th>
<th>Number of articles</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Iran</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Libya</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Malaysia</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Taiwan</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Thailand</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>USA</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>China</td>
<td>34</td>
<td>68</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
<td></td>
</tr>
</tbody>
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**RESULTS AND DISCUSSION**

Figure 1 depicts the focus of the analyzed retracted articles. The focus of the articles understudied include accounting, business ethics, supply chain management, knowledge management, project management, human resources management and quality management. Out of the total number of articles analyzed, four articles representing 8% focused on accounting (Wier et al., 2005; Deng & Qing, 2007; Tan et al., 2010; Lai et al., 2010), two articles representing 4% focused on business ethics (Tseng et al., 2010; Schminke & Ambrose, 2011), three articles representing 6% focused on supply chain management (Salam, 2009; Wang et al., 2010; Karami et al., 2015), 36 of the articles representing 72% focused on knowledge management while five articles representing 10% focused on project management, human resources management and quality management respectively. Interestingly, it is obvious that most of the authors of the retracted journals analyzed within the period understudied focused on knowledge management. Knowledge management as an emerging field in
management science is fast gaining wide acceptance and popularity. Therefore, every researcher within this emerging field of research strives to make remarkable contributions through publications of their research outputs. This in itself is enough pressure on the researchers to “cut corners” and hence engage in unethical misconducts as reported by Finalli (2009).

A further analysis of the retracted articles that focused on knowledge management was done based on their theme and location in which the study was carried out (Figure 2). Interestingly, unethical research misconducts such as data falsification, duplication of submitted articles, plagiarism, data irregularities and incomplete citations were identified from the retracted articles that focused on knowledge management. Among all these unethical research misconduct, it can be seen that plagiarism was predominant (Figure 2a). This is consistent with the work of Bebeian, Taylor & Miller (2010) who reported that plagiarism is one of the most common forms of ethical violation within the management discipline. Moreover, the location of the university where the retracted articles that focused on knowledge management was investigated was also analyzed as shown in Figure 2 (b). Eight countries namely Germany, China, Iran, Libya, Malaysia, Taiwan, Thailand and USA were identified as the locations of the studies investigated in the retracted articles on knowledge management. It can be seen that the China has the highest numbers of retracted articles that focused on knowledge management compare to other countries. Although, Russikoff, K., Fucaloro, L., & Salkauskiene (2003) has reiterated that plagiarism is a cross cultural phenomenon, cases of research misconducts are more predominant in some countries than other. It can be deduced from Figure 2 (b), that plagiarism cases identified from the retracted articles in knowledge management is more in China compare to other countries within the period understudied (2005-2016). This can be attributed to the fact that universities in China inculcated incentive pay system as means of rewarding publications in high-impact journals (Chen & Macfarlane, 2016). In view of this, academics tends to compromise quality of papers for quantity in order to get more incentives.

Figure 1: Focuses of the analyzed retracted articles
The representations of the different themes of the retracted articles understudied are depicted in Figure 3. It can be seen that the themes of the retracted articles cut across different unethical conducts such as data falsification, duplication of submitted articles, plagiarism, data irregularities and incomplete citation and technical errors in the article. The analysis of the different articles show that, data falsification and duplication of submitted articles with three and four articles respectively represent 14% of the total article analyzed (Wier, 2005; Salam, 2009; Tan et al., 2010; Vahedi & Irani, 2011; Karami et al., 2015). Interestingly, plagiarism which features in 40 articles representing 80% of the total articles is the most reported unethical conduct (Song & Wang, 2009; Yao & Zhu, 2009; Lai et al., 2010; Tseng et al., 2010; Tohidi & Jabbari et al., 2012; Nicolae, 2014). The remaining 6% of the total retracted articles represents articles with technical errors as well as those with data irregularities and incomplete citations. A further analysis of the retracted articles which focused on knowledge management shows that plagiarism is the most reported case of research misconduct as depicted in Figure
4. The cases of research misconduct involving plagiarism most especially among researchers in the field of knowledge management in on the increase and can be liken to a monster that is capable of destroying academic integrity according to Batane (2010). The high rate of cases recorded for plagiarism within the period understudied agrees with the work of Pupovac & Fanelli (2015) who reported that academic misconducts involving plagiarism is higher compare to others. Further analysis was made based on location of studies of retracted articles that have plagiarism as their themes as well as the types of journals that published the retracted articles (Figure 3). From Figure 4 (a), the study locations for retracted articles with plagiarism cases cut across different countries such as Germany, Libya, Malaysia, Taiwan, China, Romania, Iran under the period understudied. This observation is consistent with the report of Farthing (2014) who stated that research misconduct most especially plagiarism is a global challenge for 21st century. However, the trend between the period understudied shows that most of the locations of the retracted papers with plagiarism cases were in China. This trend is consistent with observation of Chena and Macfarlane (2016) who highlighted that the number of Journal articles from China involving misconduct cases increased astronomically between 1999 to 2013.

As earlier stated, this could be as result of the incensive system put in place to reward publications in high impact journals. This does not implies that there were not measures in place by the Chinese Minidtry of Education to discipline those that cut in cases of research misconduct. In 2009, the Ministry of Education in China released six separate policies on academic misconduct to discipline those that default. Moreover, the distribution of the retracted papers with plagiarism cases according to the publishers are shown in Figure 4 (c) and 6. All the papers listed are index in Scopus, which is one of the reputable indexing organization. However, most of the retratcted articles were published in different journals of IEEE. IEEE is the world largest professional organization known for the publication of high quality papers.

![Figure 3: Themes of the retracted articles from the different field of Management science](image-url)
Figure 4: (a) Location of retracted article in KM

Figure 4: (b) Trend of retracted articles in KM

Figure 4: (c) The Journal distributions of retracted articles in KM

Figure 5 depicts the location in which the studies were conducted. Interestingly, it can be seen that research misconducts is a global issue which cut across different universities across the world. Based on the analysis of the retracted articles, the study from two retracted articles were conducted in Germany representing 4% of the total article, the study from three retracted articles representing 6% of the total article analyzed were conducted in Malaysia and Thailand, studies from seven articles representing 14% of the total article analyzed were conducted in ...
Iran, Libya and Taiwan. Surprisingly, the studies from thirty four retracted articles representing 68% of the total article analyzed were conducted in China while the studies from four of the retracted articles representing 8% were conducted in USA. Moreover, the analysis of the retracted articles that focused on knowledge management also showed similar trend as depicted in Figure 5.

![Figure 5: Location in which the studies were conducted for all the articles understudied](image1.png)

![Figure 6: Location in which the studies were conducted for the articles that focused on knowledge management](image2.png)
Implications from the study

Academic researchers are often faced with different pressures which might arise from both career advancement and the capability to attract funding which to a large extent is hinged on the author’s successes in publication. In the present study, we have established from the analysis of retracted articles in the field of management sciences (with a particular emphasis on knowledge management) within a period of 2005-2016 that academic misconducts most especially plagiarism is a prevalent unethical issue which should not be overlooked. Also, based on our findings, the identified unethical practices were not restricted to any geographical locations even though study show that they are more concentrated in some countries compare to others. Also, it appears that unethical issues are on the rise in KM academic research stream as it has the highest amount of retracted articles in the period investigated. Different authors have agreed that article retraction is a sure source of evidence for research misconduct and should be upheld. Article retraction as an evidence of academic misconducts is an awful experience which is very hurting for both publishers and authors. Its consequences are enormous in that it often resulted in embarrassment to both editors and authors. In order to ensure and enforce ethical research and publishing, the following steps have been recommended as stipulated in the retraction statement of the Editor-in-Chief of Management and Organizational Review in the follow up letter to the retracted articles titled “Ethics and integrity of the publishing process: myths, facts, and a roadmap” in Schminke & Ambrose (2011).

Firstly, the extent for plagiarism should be determined. In order to implement this, reports have shown that most prominent publishing organizations usually check the overlapping degree of submitted manuscript using diverse similarity detector softwares. For instance, Elsevier and Springer use EES (Elsevier Editorial System) and Editorial Manager for the processing of submitted manuscript as well as checking for potential plagiarism of the articles using software such as iThenticate. The benchmark offer by most of the well-known publishing organizations is between 20% and 30%. However, this benchmark may actually not help in detecting cases of plagiarism. This is because there is possibility that a skillful but cunning writer can easily rewrite an already published article without any traces of similarity. Moreover, most of the plagiarism software cannot detect similarity in content. Therefore, a more proactive measure is needed to curb this unethical misconduct among researchers.

Lastly, advancement in academic pursuit should not be absolutely tied to number of scholarly works rather it should be quality of the published papers. Measures should be put in place by education policy makers and stakeholders to scrutinize the quality of published papers by the researchers in the university before using same for the assessment of the author’s KPI. Also, in line with Guraya et al. (2016), education stakeholders should advice academics to only consider the publication of papers that makes significant contributions to scientific literature rather than rewarding the publication of enormous articles. This will put measures in checking the undue pressure and competition to writing articles in management field to get promoted and publication-linked incentives.
CONCLUSION

Promoting research ethics and integrity through retraction of articles is no doubt a good initiative. The publication of articles in highly reputable journals is often desired for the possibility of exchanging scientific information in which critical decisions are based, as well as advancement of knowledge in the field. Thus, researchers are required to do their studies in accordance to the norms, codes, policies, regulations and guidelines of their profession as well as their employers (universities or research institutions) and of government (the public). Consequently, the undue pressure from academic promotion, securing research funds, and the competitions for institutional ranking are not valid reasons for unethical practices in research publication and questionable research outputs resulting in retraction of the affected article. Excellence, integrity and originality in management academic research writing and publications can be ascertained through the concerted efforts of all stakeholders (the authors, reviewers, editors, publishers and the university management). In addition, academic ethics and integrity issues pertaining to individual subfields making up management sciences especially that of knowledge management should be separately examined in future research for better insight. This will further promote specific good ethic and integrity in such sub-fields academic writing as well as enhance the quality of research outputs in the field of management.

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