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An alternative dimension towards integrity: A perception of University researchers

Noorhidayah Abu Talib, Sarina Othman, Khamsi Che Abdul Hamid, Azizan Zainuddin, Zurina Md. Nen

Abstract

Enormous issues on research integrity have been widely discussed amongst the academicians and the research institutes all over the world. Likewise, understanding and discussions on different aspects of academic misconducts have increased significantly in the past decade. Yet, cases on research misconducts continue to increase in the world of academia. Additionally, a noticeable gap in the literature is evident, whereby little research has sought to address research misconducts among researchers in Malaysia and the existence of policies on research misconducts among universities are not well documented or governed. In considering the integrity in research among the researchers, the authors examine the extent to which they perceive research integrity through research misconducts (i.e. plagiarism, fabrication, falsification, misuse of research fund). The authors further address on the influence of different generations and gender of researchers towards integrity. A cross-sectional survey of 600 questionnaires was used and only 159 returned questionnaires were analyzed. The use of parametric test reveals that majority of respondents agreed research misconducts were not tolerable. The study also confirms that generations and gender differences influence the researchers’ perceptions towards integrity. The study concludes that Malaysia’s academic communities require strong and sound guidelines for responsible practice in research and dealing with research misconducts specifically.

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Keywords: Integrity; Research Misconducts; Perception.

Introduction

Besides addressing and drawing national attention to the position of the university in global ranking, the higher learning institutions’ success is also demonstrated with the presence or absence of quality assurance...
system, high standards of professionalism among staff and academicians, research, consultancy and innovation and so forth. Though, with these issues in hand, there is no better way to achieve them without the presence of integrity and accountability. There are lot initiatives taken by the various institutions to help research and development to take place. These initiatives are critical to develop because enormous amount of money have been spent for research, but the debates continue as how far the resources allocated is efficiently used and managed. Therefore, transforming all Malaysian universities into world-class research institution is both extremely difficult and challenging. If research integrity is not addressed, or if the perception develops that it receives only lip service, not translated into deed, these will have an effect across the organization (Gunsalus, 1993). As such, addressing various issues of integrity in the context of the research is crucial as to understand the research misconduct phenomena specifically.

A report by the United States (U.S) Office of Research Integrity (ORI) Research Conference on Research Integrity confirms that researchers do commit misconduct (Steneck, 2000). On this note, understanding and discussion to different aspects of academic misconducts has increased significantly in the past decade around the world. Plagiarism is amongst the world widely studied acts of dishonesty in the area of academic dishonesty (Smith et al., 2007; Culwin and Lancaster, 2001; Loui, 2002; Shore, 1993 and Syahrul and Sidi, 2007). Conversely, based on the literatures not many studies on research have investigated on any other area of research misconducts such as fabrication, falsification, misuse of research fund and others. Thus, this paper will integrate all of these misconducts into its discussion and link them with the perception of the respondents. According to Buchanan and Huczynski (2004), each individual have different degrees of readiness to respond to objects, people and events in different ways. In the context of this research, perception on ethical research can appear on how the researchers conceptualize what they perceive as ethical situations in doing the research. Additionally, generations and gender of the respondents are taken into account in determining the significant differences in which the respondents perceive the research misconducts. The degree of sensitivity and tolerability to research misconducts vary across generations. This is simply because these different groups concern on work ethics portrays and possesses attitude differently. In relation to gender, Dawson (1995) asserted that men and women differ considerably in their moral reasoning processes, irrespective of whatever decisions they ultimately may make in given circumstances.

2. Literature Review

Integrity within higher education has been extensively studied nationally and internationally for the past several years. The studies highlighted various issues ranging from what values and practices to be perceived as integrity to those that constitute against integrity in academia. The concern on integrity in the world of academia is crucial because the works of academia are perceived as sacred and noble. The knowledge it produces and disseminates throughout the world help in making an important contribution to the quality of life of citizens. On this basis, the debate on the importance of integrity in the world of academia continues, highlighting various issues and challenges that academic world are facing, and addressing various initiatives to curb the upcoming problems.

Academia is an institution consisting of scientists who engage in research which final aims is to produce knowledge (vries, 2009). The working of academia is producing knowledge and those who produce the knowledge are then regarded as scientists. On the same token, Musselin (2007) asserted that traditionally, the two core academic activities in the world of academia comprised of teaching and research. In relation to this, it is believed that the aim of academia is to develop a situation that would encourage intellectual advancement through the creation, compilation and dissemination of knowledge done through teaching and research activities. However, contemporary world has witnessed rapid changes in terms of roles and functions of an academia. Following the advent of globalization, world of academia has changed assuming greater roles in creating and disseminating the knowledge. Such endeavours have contributed to the diversification of academic activities. Evidently, activities such as writing proposals, developing contracts, elaborating e-learning programs, being
engage in technology transfer, and finding internships for students are no longer peripheral academic activities. Besides, greater pressure on regional, national and international academic collaboration is now recognized as important aspects of academic works. In addition to this, various academic criteria that are alien to traditional role of academia is significantly influenced the way academic excellent is now measured.

In Malaysia, the government’s effort and commitment to make a condition that is conducive to research and development has proven its intention to push Malaysian universities to become world-class research university. Following the second objective that highlights on the importance of research, Ministry of Higher Education aims to develop at least 10 centers of excellence which are internationally recognized in terms of research output, copyrights, publications, research collaborations and commercialization or research outputs. The setting up of Intensification of Research in Priority Areas (IRPA) under the 7th Malaysian Plan (1995-2000), the introduction of Fundamental Research Grant Scheme (FRGS), the yearly average spending around RM100 million allocated for R&D, the announcement of e-Science grant by Ministry of Technology and Innovation, the announcement of Malaysian Research University Model (RU) and many other efforts show that billions of dollars have been spent to advance research and development particularly in academic institution (Kian Ming & Tony P, 2006).

In Universiti Teknologi MARA (UiTM), in line with the 10th and 9th Malaysian Implementation Plan, research and development has become one of the major UiTM strategies in achieving its status of excellence. In fact, there is an increasing research grants granted to UiTM researchers for both long-term and short-term research between 7th plan (1995-2000) and 8th plan (2001-2005). Obviously, research has been designated as one of the core academic missions for academic staff, a support to other core academic missions, and also serves as one of the critical success factors for enhancing academic reputation, achieving self-accrediting status and university status. Undoubtedly, academic world has undergone massive transformation that affect the content of academic activities in many ways. Consequently, has this transformation changed the noble and sacred aim of its existence? In quest for answering this question, Vries (2009) has pointed out that today’s academic activities and aims bear many of the characteristics of capitalism. Significantly, he regarded this new culture as an alien to academic world which gradually reduces its intrinsic value, thus portraying academician as becoming more materialistic in struggling for academic excellence. On this basis, cultivating integrity as part of the academic culture is vital. Jasmon (2008) identified series of fundamental values that must be possessed and reflected by each of academician in performing their academic responsibilities. These include honesty, trust, fairness, respect, and responsibility. He believed that these five fundamental values somehow influence the behavior of the academia in the sense that, in an academic context, people show respect for other people’s work and demonstrate professionalism by being honest, trustworthy, and acting with fairness, respect and responsibility.

One of the most critical issues where the presence of integrity is needed in the context of academia is in the aspects of conducting a research. A report by the United States (U.S) Office of Research Integrity (ORI) Research Conference on Research Integrity (2000) confirms that researchers do commit misconduct, where research results are inappropriately influenced by bias, conflicts of interest, and just plain carelessness; and researchers allow personal ambitions and biases to get in the way of the purported objectivity of the research process. Likewise, different forms of fraud and unethical behavior in research (e.g., fabrication of data, deceptive reporting results, suppression of data, and deceptive design or data analysis), had been observed in fairly similar numbers as well (Ranstom et. al, 2000). While plagiarism is amongst the world widely studied acts of dishonesty in the area of academic dishonesty (Smith et al., 2007; Culwin and Lancaster, 2001; Loui, 2002; Shore, 1993 and Syahrul and Sidi, 2007), research misconducts such as fabrication, falsification, misuse of research fund and some others research misconduct issues have also relatively significant in the discussion of academic dishonesty. Evidently, various efforts in establishing responsible and accountable research conduct are now both critical and crucial.

While a debate on integrity and misconduct in research continues, one critical question needs to be addressed. Why one involves in research misconduct? Numerous reasons are put forward highlighting various reasons of why one involve in research misconduct. These include cultural factors which resulted by one’s attitude, ignorance and awareness on the issues (Cossette, 2004; Smith et al., 2007); unclear definition of what constitute good or misconduct in research due to poor policy execution (Smith, 2006; Eckstein, 2003; Pascal, 1999); lack of
supervision (Redman et al., 2006 and Wright et al., 2008); pressure to publish (Smith, 2006; Ewing, 2010; Cossette, 2004; Eckstein, 2003; and Pryor et al., 2007) and excessive workload (Redman et al., 2006). In addition to this, Davis et al. (2007) identified four critical factors that explain one’s involvement in research misconduct that are personal and professional stressor, organizational climate factors, job insecurities and personality factors. Interestingly, while many studies prove that gender and generation differences may influence one’s involvement in misconduct, there is relatively small numbers of studies that discuss how gender differences affect research misconduct. Additionally, a noticeable gap in the literature is evident, whereby little research has sought to address research misconducts among researchers in Malaysia and the existence of policies on research misconducts among universities are not well documented or governed. Hence, this study aims to investigate to what extent generation and gender differences influence the perception towards integrity among university researchers by highlighting the Malaysian context.

3. Methodology

3.1 Theoretical Framework

3.2 Sample Selection

The sample frame of this research is the UiTM researchers who are registered with Research Management Institute of UiTM from 2005 onwards. According Roscoe (1975) in Sekaran (2003), in most research, sample size larger than 30 and less than 500 is appropriate. In this study, researchers had distributed 600 questionnaires. Among the numbers of questionnaires, there were 163 questionnaires returned. However, only 159 questionnaires were used for analysis.

3.3 Measurements

Perception towards integrity is essentially subjective in nature and, thus based on researchers opinion. This perception was measured by using Likert-type scales, since this method provides a number of possible alternative responses to help reduce reliability errors.
Table 1. Measurement Scale and Statistical Analysis by Objectives

<table>
<thead>
<tr>
<th>Research objective</th>
<th>Measurements scale</th>
<th>Statistical analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To review the perception of university researchers towards integrity</td>
<td>The perception measured by using Likert Scale (interval) of Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4) and Strongly Agree (5).</td>
<td>Mean and Percentage</td>
</tr>
<tr>
<td>2. To examine the significant difference between researchers’ generation and the perception towards integrity</td>
<td>Nominal Scale &amp; Interval Scale</td>
<td>Independent Group T-Test</td>
</tr>
<tr>
<td>3. To examine the significant difference between gender and the perception towards integrity</td>
<td>Nominal Scale &amp; Interval Scale</td>
<td>Independent Group T-Test</td>
</tr>
</tbody>
</table>

3.4 Data Collection

3.4.1 Pre-Testing Procedure

Prior to the survey questionnaires being delivered to respondents, a pre-test on the questionnaire was conducted. The pre-test used to assess the reliability of the various measurements used in the questionnaire. In conducting the pre-test, the questionnaires were distributed online to 200 respondents via email. The pre-test received 17 responses and the data generated from the pre-test was used to assess the reliability of the items used in the questionnaire. For this purpose, Cronbach’s alpha reliability coefficient was used in the measurement. However, a few minor changes were made to the questionnaire to improve its format and facilitate actual analysis.

3.4.2 The Questionnaire

The questionnaire is divided into three sections, covering demographic profiles, perception on research integrity, and factors and prevention of research misconduct. The questionnaires, accompanied by a covering letter and a customized-pen, were distributed to 550 UiTM researchers. The cover letter was attached as to inform the respondents the purpose of the research, and instructions to complete the questionnaire as an assurance of confidentiality. The questionnaires were distributed by mailing the respondents as well as personally distributed them through face-to-face meeting. The process of sending and collecting the questionnaires were done within one month. A total of 163 surveys were returned. However, only 159 questionnaires were used for analysis.

4. Findings

Table 2. Mean and Significance Difference between Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>47.65</td>
<td>2.541</td>
<td>157</td>
<td>.012</td>
<td>60</td>
</tr>
<tr>
<td>Female</td>
<td>42.95</td>
<td></td>
<td></td>
<td></td>
<td>99</td>
</tr>
</tbody>
</table>

Note: Levene’s test is greater than .05 (0.292), Range between 21.0-43.0 (high integrity), range between 44.0-65.0 (medium integrity), range between 66.0-87.0 (low integrity)
An independent group t-test was used to measure the significant differences between male and female’s perception towards research integrity. In the context of this research, the researchers concentrated on how male and female respondents perceive the research integrity differently. The result obtained in the table above shows that the two tail significance for research integrity indicates that p<.05, (p=0.12) and, therefore there a significant difference between gender; male and female with the respondents’ perception towards research integrity. This result seems to be supported by the mean scores as set in table 2 above in which female researchers’ mean score (42.95) is lower than the male respondents (47.65). This indicates that female respondents are more concern and sensitive on research integrity issues and therefore less tolerable to research misconduct compared to the male respondents. The finding has confirmed Dawson’s (1995) thought who asserted that men and women differ considerably in their moral reasoning processes, irrespective of whatever decisions they ultimately may make in given circumstances.

Table 3. Mean and Significance Difference between Generations

<table>
<thead>
<tr>
<th>Generation</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Y</td>
<td>44.92</td>
<td>1.016</td>
<td>115</td>
<td>.312</td>
<td>74</td>
</tr>
<tr>
<td>Gen X</td>
<td>42.77</td>
<td></td>
<td></td>
<td></td>
<td>43</td>
</tr>
</tbody>
</table>

Note: Levene’s test is greater than .05 (0.368). Range between 21.0-43.0 (high integrity), range between 44.0-65.0 (medium integrity), range between 66.0-87.0 (low integrity)

<table>
<thead>
<tr>
<th>Generation</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen X</td>
<td>42.77</td>
<td>-1.411</td>
<td>83</td>
<td>.162</td>
<td>43</td>
</tr>
<tr>
<td>B. boomers</td>
<td>46.38</td>
<td></td>
<td></td>
<td></td>
<td>42</td>
</tr>
</tbody>
</table>

Note: Levene’s test is greater than .05 (0.694). Range between 21.0-43.0 (high integrity), range between 44.0-65.0 (medium integrity), range between 66.0-87.0 (low integrity)

<table>
<thead>
<tr>
<th>Generation</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Y</td>
<td>44.92</td>
<td>-.647</td>
<td>114</td>
<td>.519</td>
<td>74</td>
</tr>
<tr>
<td>B. boomers</td>
<td>46.38</td>
<td></td>
<td></td>
<td></td>
<td>42</td>
</tr>
</tbody>
</table>

Note: Levene’s test is greater than .05 (0.519). Range between 21.0-43.0 (high integrity), range between 44.0-65.0 (medium integrity), range between 66.0-87.0 (low integrity)

In term of generations and integrity, the findings suggest that Generation X’s respondents are significantly more sensitive and concern on research integrity as compared to respondents from Generation Y and Baby Boomers. It was reported that there are significance differences of perceptions on research integrity between Generation X and Generation Y and also between Generation X and Baby Boomers. Conversely, no significant difference of perceptions between Generations Y and Baby Boomers was identified in the study. This finding was supported by the fact that Generation Y and Baby Boomers do share a similar generation characteristics thus have similar perception toward integrity in research, that is moderately tolerable to research misconduct as compared to Generation X.
Table 4 shows that most items have a mean score ranging from 1 to 3, implying that the respondents did not agree on the statements concerning misconducts in research. In term of fabrication, most of the respondents neutrally perceived that creating data or results and reporting them may help the researchers to achieve the research objectives. They were also strongly not accepting the action of the researchers to use inappropriate
statistical test in achieving the desired result for research (mean score 1.82). Interestingly, respondents neutrally perceived that results from statistical analysis can be misinterpreted when it comes to falsification in doing research. This means, there is the tendency to misinterpret the results from the statistical analysis. Majority of them also perceived that it is not acceptable to report and publish false or misleading statements in the research report or published papers. On the other hand, respondents were mutually agreed that plagiarism in research is not an acceptable conduct as all mean scores for the items ranging between 1 and 2. Most of them disagreed to allow the researchers to claim the work done by others as their own works and use of text written by someone else without indicating the source in research. In term of publication-related misconducts, the finding shows that UiTM researchers believed that acknowledging the co-author of an article or paper that made a significant contribution to the research is important. The findings for financial misconduct shows that most of the respondents’ perceived the use of research funding for personal purposes is not allowed. However, they perceived that researchers can still apply for funding although the research project is almost completed.

Conclusion

This study sets out to examine the perceptions of UiTM researchers on research integrity, i.e. research misconduct (plagiarism, fabrications, falsifications and misuse of fund). The finding of the study shows that majority of the respondents are not tolerable with research misconducts where plagiarism was perceived to be the most non-tolerable act in conducting research. It was found that different generations and gender of the respondents has significant influence on their perceptions towards research misconducts. Primary research carried out for this study produces some interesting results. However, the findings were limited, and future research would necessary obtain more representative and in-depth results by incorporating other elements that are not included in this research, which may also influence the findings. Besides, future research can widen the population sample of the research by involving not only UiTM researchers, but also researchers from other universities especially lecturers from research universities. This may create a significant impact on the study as the volume and value of the research grant is greater. It is also recommended for future study to include the personal characteristics and believes of researchers in their research. The individual characteristics include level of education, moral values, and family background. The individual characteristics can be regarded as moderating variables in understanding the different behavior and perception of different respondents. Conducting such study would enhance a better understanding and extend the knowledge on research integrity. This could also reflect the involvement of the researchers in conducting the research and not only based on perceptions. The research can further be expanded to investigate the research fraud and misconducts. The future study could include the relationships on the researchers’ characteristics and probability of occurrence on research misconducts which is not addressed in this study.

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References


