Research Ethics: Survey of Business School Faculty in Malaysia

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This study reports the perceptions of business school faculty on ethical behaviors related to data analysis and research reporting as well as the prevalence of such behaviors in their academic environment. Survey data for the study were obtained from a sample of 102 business school faculty from five government-funded universities in Malaysia. Study results showed that a majority of the respondents considered practices such as fabrication, manipulation, and distortion of data to be ethically unacceptable, and these behaviors were reported to be least prevalent. In contrast, the practice of misapplying statistical techniques was considered ethically acceptable and reported to be quite prevalent. On research reporting, while a majority of the respondents agreed that plagiarism and taking undeserved authorship credit were ethically unacceptable, they also reported having observed the frequent occurrence of such behaviors.

Field of research: Research ethics, Malaysia

1. Introduction

As with all university faculties across all disciplines, academic integrity is central to the reputation of business faculties and the trust that underlies public support for the pursuit of scholarly activities among business faculty members. A major scholarly activity is, of course, research. The career advancement of academicians in universities in Malaysia, like those of their Western counterparts, is contingent partly on their scholarly contribution as indicated by their track record in research and writing. Business faculty members who wish to advance in their career are, therefore, under continual pressure to conduct research and publish. At the same time, they are expected to play an exemplary role in the areas of teaching and service. Such conflicts in role demands may give rise to ethical dilemmas and lead some faculty members to engage in unethical behaviors during the research process.

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Therefore, the primary objective of this descriptive study was to assess the ethical perceptions on research issues related to data analysis and research reporting among business school faculty. In addition, we sought to examine the prevalence of unethical research behavior as perceived by those within the academic business environment.

2. Background Literature

2.1. Ethical Research Issues: Data Analysis

Professional associations such as the Academy of Management (AOM) and American Psychological Association (APA) have ethical codes for governing the conduct of members, including research conduct. A code of ethics, however, does not provide detailed explanations of ethical issues and thus are unlikely to provide much educational value or help deter misconduct among researchers who lack the required knowledge or judgment to behave ethically (Sieber, 1994: 369). Therefore, it is important that researchers first be cognizant of the ethical issues that can arise in the research process and know what constitutes scientific misconduct.

Ethical issues regarding research data analysis include data misrepresentation and misuse of statistical techniques (cf. Resnik, 2000). The most obvious and serious form of intentional data misrepresentation is data fabrication and if detected ends or ought to end the academic career of the researcher (Rosenthal, 1994: 132). Another form of data misrepresentation is data manipulation, which includes distorting data or dropping data to make the results more in line with one's hypotheses. Finally, data mining, which involves collecting a large and diverse data set in an attempt to mine for results that have publishable value, can be misleading and unethical when readers do not expect the results of a study to be obtained through *post hoc* analysis rather than rigorous hypothesis testing (Resnik, 2000: 171).

The misuse of statistical techniques is another ethical issue related to data analysis. A misuse or incorrect use of statistics is the inappropriate use of statistics given the research question, design, and methods being used (Gardenier & Resnik, 2002: 67-68). Researchers should act with honesty and integrity when applying statistical methods and not doing so can be construed as a form of misconduct, particularly when intentional deception is involved (Resnik, 2000: 166). Resnik (2000) also discussed ethical issues related to statistical errors that arise due to sheer ignorance or lack of careful thought, stating that researchers have ethical obligations to avoid such errors. Examples of such misapplication are using regression analysis to test relationships among variables that are not linearly related and using structural equation modeling software programs (e.g., LISREL) to test hypotheses on extremely small data sets.

2.2. Ethical Research Issues: Research Reporting

Ethical issues regarding the reporting of research results include plagiarism, unjustified authorship credit, piecemeal publication, and simultaneous multiple submissions (Aquinis & Henle, 2002; Calabrese & Roberts, 2004). Plagiarism is the claiming of the

words and ideas of another person as one's own (APA, 2010: 15) and is considered a scientific misconduct by the scientific community. This ethical misconduct, however, has persisted over time among students and academicians in all academic disciplines and has been made easier with the advent of modern technology such as the Internet (Gibelman & Gelman, 2003: 240).

Authorship credit relates to decisions regarding who becomes a coauthor. Unjustified authorship credit occurs when people who did not contribute to the work produced is included as an author. As spelled out in both the AOM and APA code of ethics, one should take authorship credit only for work one has actually performed or to which one has contributed in a nontrivial way. Minor contributions such as giving statistical advice, helping collect data, or structuring a computer program may be acknowledged in a note.

Piecemeal publication is the breaking up of a study into a series of smaller studies simply to maximize the number of publications. Piecemeal publication is an ethical concern because multiple reports that are presented as coming from independent data sets may pose problems for researchers who review the literature and conduct meta-analyses (Fine & Kurdek, 1994).

Finally, simultaneous multiple submissions involves submitting a manuscript to be reviewed for publication to more than one publication outlet at the same time. It is considered unethical to submit a manuscript to another publication outlet before a decision has been received from the first publication or before a formal withdrawal of the manuscript from the first publication has been made (AOM, 2009: 1375).

3. Research Method

We surveyed business school faculty from five government-funded universities in Malaysia. The survey questionnaire was placed in the mailbox of potential respondents by the researchers or a contact person in the faculty. A total of 102 respondents returned usable questionnaires, which represented an overall response rate of 23%. The mean age of the sample was 40.91 (*SD* = 8.62), and the mean work experience was 12.38 (*SD* = 7.90). Among the 101 respondents who reported their academic rank, 72 were lecturers, 20 were associate professors, and 9 were professors.

For the study instrument, we developed questionnaire items specifically for this study after reviewing the relevant literature (e.g., Aquinis & Henle, 2002; Borkowski & Welsh, 2000; Cossette, 2004; Resnik, 2000; Von Glinow & Novelli, 1982). The items for this report assessed ethical perceptions related to research analysis and reporting. Participants indicated whether they viewed a specific research behavior that has potential ethical overtone as acceptable or not using a 5-point scale ranging from 1 (*totally unacceptable*) to 5 (*totally acceptable*). They also indicated their knowledge of the occurrence of these same behaviors using a 5-point scale ranging from 1 (*never*) to 5 (*always*).

4. Results and Discussion

Frequency distributions and mean scores of respondents' responses for the perceived ethicality and occurrence of each research behavior are summarized in Table 1 and Table 2, respectively.

Table 1: Ethical Assessment of Research Behaviors

		Response Frequencies (%)						
	Research Behavior (abbreviated item)	1	2	3	4	5	*M*	*SD*
1	Fabricate data in presentations or publications.	75	13	7	5	0	1.41	0.82
2	Manipulate data to fit or support one's hypothesis.	60	30	6	4	0	1.53	0.78
3	Distort information or report results incompletely to make the study appear sounder or more rigorous.	56	31	8	5	0	1.62	0.83
4	Collect a large data set to mine for statistical significant results post hoc.	27	46	22	5	0	2.04	0.83
5	Analyze a trivial subject matter with great statistical sophistication when simple statistics will do the job.	16	36	26	19	3	2.58	1.07
6	Reanalyze data using different analysis methods until a hypothesis is confirmed.	16	25	17	35	7	2.93	1.23
7	Incorporate whole sentences or paragraphs verbatim from other sources without appropriate citation.	72	25	2	1	0	1.31	0.56
8	Use one's position to influence others to include one's name in a research project or paper.	67	21	9	2	1	1.49	0.82
9	Assign to students work that one plans to use for one's own benefit without giving students credit for it.	56	33	6	5	0	1.60	0.81
10	Use a student's work and claim it as one's own (with the student's permission).	62	22	7	9	0	1.62	0.96
11	Paraphrase the words or ideas of other authors without giving credit to original authors.	50	43	2	4	1	1.63	0.80
12	Present substantial portions of another's work as one's own work by citing the work occasionally.	58	23	14	5	0	1.65	0.90
13	Put one's name as first author on a paper written by and based on the doctoral dissertation of a student that one supervised.	51	33	9	6	1	1.72	0.93
14	Put one's name as a co-author on a student paper in which one had little involvement.	52	28	15	5	0	1.73	0.89
15	Submit for publication or publish two or more papers containing essentially the same content.	46	36	11	7	0	1.78	0.90
16	Agree to be the co-author of a paper without making a significant contribution to the research/writing.	37	38	13	10	2	2.02	1.04
17	Submit a paper to more than one publication outlet at the same time.	36	29	19	16	0	2.14	1.08
18	Cut up research data or results that can be meaningfully combined within a single report.	20	32	17	18	3	2.62	1.18

Note. The first six items relate to research analysis, and the rest of the items relate to research reporting. Response scale: 1 = Totally unacceptable, 2 = Somewhat unacceptable, 3 = Neutral, 4 = Somewhat acceptable, 5 = Totally acceptable.

Table 2: Knowledge of Occurrence of Research Behaviors

	Research Behavior (abbreviated item)	Response Frequencies (%) 1	2	3	4	5	*M*	*SD*
1	Fabricate data in presentations or publications.	54	26	15	4	1	1.72	0.93
2	Manipulate data to fit or support one's hypothesis.	42	32	20	6	0	1.89	0.93
3	Distort information or report results incompletely to make the study appear sounder or more rigorous.	46	27	21	5	1	1.87	0.98
4	Collect a large data set to mine for statistical significant results post hoc.	34	29	28	9	0	2.12	0.99
5	Analyze a trivial subject matter with great statistical sophistication when simple statistics will do the job.	19	37	29	13	2	2.42	1.01
6	Reanalyze data using different analysis methods until a hypothesis is confirmed.	16	32	35	16	1	2.54	0.97
7	Incorporate whole sentences or paragraphs verbatim from other sources without appropriate citation.	36	37	22	4	1	1.97	0.92
8	Use one's position to influence others to include one's name in a research project or paper.	38	22	23	12	5	2.23	1.22
9	Assign to students work that one plans to use for one's own benefit without giving students credit for it.	32	21	25	16	6	2.42	1.25
10	Use a student's work and claim it as one's own (with the student's permission).	30	23	31	13	3	2.37	1.13
11	Paraphrase the words or ideas of other authors without giving credit to original authors.	31	35	27	7	0	2.10	0.93
12	Present substantial portions of another's work as one's own work by citing the work occasionally.	32	34	26	7	1	2.10	0.97
13	Put one's name as first author on a paper written by and based on the doctoral dissertation of a student that one supervised.	40	18	27	10	5	2.21	1.22
14	Put one's name as a co-author on a student paper in which one had little involvement.	27	23	25	20	5	2.51	1.23
15	Submit for publication or publish two or more papers containing essentially the same content.	34	27	25	11	3	2.22	1.12
16	Agree to be the co-author of a paper without making a significant contribution to the research/writing.	22	20	30	24	4	2.70	1.18
17	Submit a paper to more than one publication outlet at the same time.	33	26	26	12	3	2.25	1.14
18	Cut up research data or results that can be meaningfully combined within a single report.	23	26	33	12	6	2.52	1.15

Note. The first six items relate to research analysis, and the rest of the items relate to research reporting. Response scale: 1 = Never, 2 = Seldom, 3 = Occasionally, 4 = Often, 5 = Always.

Six items were used to assess issues related to the analysis of research data. As shown in Table 1, respondents considered practices related to the fabrication, manipulation, and distortion of data as the most ethically unacceptable behaviors. Each of these behaviors had more than 85% of the respondents judging it as unacceptable. As shown in Table 2, these same behaviors were perceived to be the least prevalent with more than 70% of the respondents reporting that they had seldom or never observed these behaviors. In contrast, the practice of analyzing a trivial subject matter with great statistical sophistication when simple statistics will do the job was considered to be less unacceptable ethically with about 22% of the respondents judging this behavior as ethically acceptable. Also, about 44% reported having observed this behavior at least occasionally. Finally, the practice of reanalyzing data using different analysis methods until a hypothesis is confirmed was considered to be the least unacceptable ethically of all the data analysis behaviors presented. About 41% of the respondents viewed this behavior as ethically acceptable. Furthermore, about 35% reported having observed this behavior occasionally, and about 16% reported that this was a behavior they often observed occurring.

Twelve items were used to assess issues related to the reporting of research. As shown in Table 1, behaviors related to plagiarism and taking undeserved authorship credit were deemed the most unethical. All but one of these behaviors had more than 80% of the respondents judging them as unacceptable ethically. The one exception was the practice of agreeing to be a coauthor without having made a significant contribution to the research or writing of a paper. About 13% of the respondents were neutral toward this behavior and about 12% felt it was ethically acceptable.

Although plagiarism and taking undeserved authorship credit were deemed unethical generally, these behaviors were seen to be quite prevalent (see Table 2). More than 25% of the respondents reported having observed incidents of plagiarism at least occasionally and at least 40% reported having observed others claiming undeserved authorship credit at least occasionally. In fact, more than 20% of the respondents reported that the practice of assigning to students work that one plans to use for one's own benefit without giving students credit for such efforts, putting one's name as a coauthor on a student paper in which one had little involvement, and agreeing to be a coauthor of a paper without having made a significant contribution were frequent occurrences (i.e., often or always observed).

With regard to multiple publications and submissions, about 82% of the respondents considered submitting for publication or publishing two or more papers containing essentially the same content to be unacceptable ethically. However, only 52% considered cutting up research data or results that can be meaningfully combined within a single report to produce several smaller reports solely to increase the number of publications to be unacceptable ethically. Finally, about 65% considered submitting a paper to more than one publication outlet at the same time to be unacceptable ethically. These three practices were not all that uncommon with more than a third of the respondents reporting having observed these behaviors at least occasionally.

Based on the results of this study, perceptions of ethical behavior and reports of their occurrence tend to vary across different categories of misconduct. The findings seemed to be consistent with those reported in earlier studies that also showed varying levels of research misconduct among (a) marketing faculty (e.g., Mason, Bearden & Richardson, 1990), (b) researchers in the accounting field (e.g., Borkowski & Welsch, 2000), and (c) faculty members in Canadian universities (e.g., Cossette, 2004).

A large number of the Malaysian academics surveyed judged data fabrication, manipulation and distortion as unethical and viewed these practices as uncommon. However, the misuse of statistical techniques seemed to be a common practice. Although intended deception is likely, we believe that, in general, the business faculty in Malaysia lacked a strong statistical background and understanding in the appropriate use of statistical techniques. Thus, ignorance may be the reason for misuse rather than the sheer intention of misusing such techniques.

Although plagiarism was deemed to be unethical, it was reported to be a frequent occurrence. This may be attributed to the need among some Malaysian academics to publish in the English Language although their command of the language may be weak. Thus, plagiarizing by taking whole sentences and paragraphs from their referenced materials seemed to be an easy way out.

Another unethical behavior reported as a common occurrence in this study relates to undeserved authorship credit. In addition to the pressure to publish, the Malaysian culture may contribute to the occurrence of this unethical behavior. As noted by Hofstede (1983), the power distance index for Malaysia was the highest among all the countries he studied. Power distance is the willingness of a society to accept inequality and unequal treatment given to different groups of people in the society. In the context of authorship credit, students and junior faculty may confer their supervisors or dean authorship credit in view of the latter's power and position in the university rather than on the basis of their contribution to the research.

5. Study Limitations and Conclusion

We acknowledge a number of study limitations. First, although respondents completed the survey anonymously and were urged to give their frank opinion, social desirability bias cannot be ruled out given that this issue is always a concern in ethics-related research. Second, the results are based on a relatively small sample. Given the sensitive nature of the research topic, the response rate is understandably low. Finally, our study was limited to business school faculty in Malaysia. Future replication research using a larger and more diverse sample is needed.

Despite its limitations, this study provides some insights into the ethical perceptions of business school faculty. It is hoped that this information will be helpful for (a) faculty members who wish to understand better their role in the ethical practice of research, (b) researchers interested in studying this topic more closely, and (c) administrators in establishing research ethics policies.

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