

An Analysis of Research Ethical Practices Information on Universities' Websites in Developing and Developed Countries

Corina Joseph¹ · Saifulrizan Norizan¹ · Rahmawati²

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Abstract

Prior researches have highlighted challenges and variations arising from the requirements of research ethics committees and ethics governance systems across diverse research fields. This emphasizes the need to investigate how universities convey and implement research ethical practices. Research ethics plays a pivotal role in guiding the integration of ethical principles throughout all stages of research starting from its inception and planning to its completion and the dissemination of results. These practices encompass a range of considerations, reviews, guidelines, and processes aimed at safeguarding the rights, dignity, health, safety, and privacy of research participants. Using the content analysis technique, this paper aims to analyse research ethical practices information on universities' websites from *three developed countries and developing countries respectively using the isomorphism conception*. The findings suggest that the coercive, normative, and mimetic isomorphic pressures explain the research ethics governance practices. The ethical practices information was disclosed more on university websites of the developed countries. Suggestions to improve the university's research ethics governance system for the post-COVID-19 era were provided in the paper.

Keywords Ethics · Research governance · University · Websites · Isomorphism

Introduction

Ethics and ethical behavior are integral to individuals with knowledge and consciousness. Ethical conduct plays a pivotal role in the sphere of research activities. Institutions bear the responsibility of formulating robust ethical guidelines to uphold research integrity, ensure transparency, and avert allegations of wrongdoing (Sivasubramaniam et al., 2021). Globally and within individual nations, these guidelines are pivotal in overseeing research involving human participants (Guillemin et al., 2012). Research ethics encompassing ethical

Saifulrizan Norizan saifulrizan@uitm.edu.my

¹ Faculty of Accountancy, Universiti Teknologi MARA Cawangan Sarawak, Sarawak, Malaysia

² Faculty of Economy and Business, Sebelas Maret University, Surakarta, Indonesia

considerations, reviews, guidelines, and processes that safeguard the rights, dignity, health, safety, and privacy of research participants holds undeniable importance (Sivasubramaniam et al., 2021). Within this framework, Responsible Conduct of Research (RCR) and academic ethics are distinct yet interconnected concepts (Nho, 2016).

The formalization of Responsible Conduct of Research (RCR) in 2000 emerged in response to research misconduct cases, primarily in the United States during the 1980s (Nho, 2016). This paper specifically focuses on RCR which delves into the ethical governance practices concerning research involving humans while excluding considerations related to animals. Research governance is a critical mechanism which outlines projectspecific resource needs, demonstrates site-specific and overall feasibility, and ensures compliance with legal and regulatory requisites (Scott et al., 2021).

According to Canario Guzmán et al. (2022), research ethics governance can be defined as the ability to create strategic policy directions, provide sound regulation, establish and maintain ethical standards, and ensure accountability and transparency are all implied by the governance role of a research ethics system. Research ethical governance practices have gained prominence on national agendas because it emphasizes the need to prioritize the National Statement as a guiding framework for ethical reviews within the broader context of research (Guillemin et al., 2012). Universities and research institutions entrusted with research must bridge legitimacy gaps and align themselves with national research frameworks to uphold ethical standards (Allen, 2008).

Promoting and monitoring research conduct remain essential indicators of universities' and institutions' commitment to sound research ethics governance. Instances of research funding suspension serve as stark penalties for failure to meet the stringent ethical standards established by institutional bureaucratic structures (Sivasubramaniam et al., 2021). However, research ethical governance practices vary significantly across countries worldwide. European institutions have been pioneers in developing ethics guidelines and incorporating international codes of practice (Sivasubramaniam et al., 2021). The European Network for Academic Integrity (ENAI) has played a key role in promoting academic integrity and fostering awareness through educational, research, and public engagement activities within Europe and beyond (Sivasubramaniam et al., 2021).

Singapore offers another perspective of ethical guidelines, adapted from the World Health Organization's Code of Conduct for Responsible Research, which is embedded within the Singapore Statement on Research Integrity. These principles emphasize fairness and accountability throughout the research project lifecycle internally and in collaboration with external stakeholders. Core principles of justice, beneficence, and respect for persons underpin research ethics guidelines in several countries (Lindorff, 2010). Justice necessitates equitable treatment of research participants, prevention of exploitation, and the avoidance of perpetuating societal disparities. Beneficence highlights the ethical responsibility to minimize harm and maximize benefits by aligning with a utilitarian framework. Respect for individuals entails recognizing their autonomy and safeguarding those with reduced decision-making capacity. A vital element in research ethical governance practices is the Research Ethics Committee (REC) that ensure a balanced review process to uphold ethical standards, scientific merit, and human rights protection. Recognizing areas for improvement within RECs is crucial, especially given the complexities in research ethics governance faced by universities and research institutions (Davies, 2020).

Challenges extend globally with regions such as Africa facing limited ethical review capacity and difficulties in meeting the compliance requirements of Western funding agencies (Davies, 2020). Similar disparities exist in countries such as Korea in which full ethical compliance remains a work in progress (Nho, 2016). Inconsistencies in university

research ethics governance policies add to the complexity of the research landscape (Allen, 2008). These discrepancies arise from the frequent establishment of research ethics committees, unique pressures faced by individual universities (Vadeboncoeur et al., 2016), and differences in perspectives on research ethics within inter-university collaborations.

While variations exist among nations in terms of research ethics review and governance systems, overarching processes and fundamental principles remain consistent, particularly in advanced Western countries. For instance, in Australia, the National Statement guides ethical research conduct which offers comprehensive guidelines for research ethics governance and ethical review processes. Awareness of the National Statement, as well as the Australian Code for the Responsible Conduct of Research for university researchers, are crucial factors affecting research funding evaluation and project execution (Guillemin et al., 2012). Research ethics review has evolved into a global endeavor that necessitates cross-national perspectives for a growing number of international studies. This shift reflects the demand for multi-faceted reviews spanning various countries (Guillemin et al., 2012). Recent instances of research ethics oversight in protecting the rights and interests of participants and upholding the integrity of research institutions (Page & Nyeboer, 2017).

As values vary among countries, cultural differences significantly contribute to variations in research ethical governance practices. Cultural disparities manifest in areas such as conflict of interest management, whistle-blowing mechanisms, joint research endeavors, and reporting misconduct to government bodies (Nho, 2016). Research ethics governance has a profound impact on the public perception of researchers in shaping public trust and engagement (Nho, 2016). Researchers must become more involved in ethical governance. This is a goal that can be promoted through university and research institution websites to enhance their visibility and support for ethical conduct (Lindorff, 2010).

The institutional culture of responsibility in research can be strengthened through ongoing efforts to promote research ethics governance and ethical reporting (Ferguson et al., 2007). These efforts result in collective beliefs and behaviors that foster a culture of ethical research. Motivated by these critical considerations, this paper embarks on an analysis of research ethical practices as presented on university websites in three developed countries and three developing countries to shed light on the global landscape of research ethics governance. This may assist in indicating the level of commitment undertaken by the universities in promoting research ethics governance via websites and ensuring there is no legitimacy gap in compliance with the national research framework (Allen, 2008).

The research ethics governance is a subset of research ethical practices executed in specific-countries universities which is connected to the isomorphism conception developed by DiMaggio and Powell (1983). The majority of pertinent accounts investigating institutional change in higher education systems hold that universities, faced with an increasingly complex, competitive, and uncertain operating environment, have mainly resorted to the isomorphic strategy of mimicking fellow universities which are perceived to have the highest degree of legitimacy among peer institutions. As a result, conformity among universities and their organizational structures has intensified (Croucher & Woelert, 2015). The three isomorphism pressures are coercive, normative and mimetic. Isomorphism is a situation that influences one component to correspond to other components in the population that handle a similar process (DiMaggio & Powell, 1983). Coercive isomorphism is the most commonly recognized institutional pressure. According to DiMaggio and Powell (1983, p. 149), the pressures can be "exerted by other organizations on which an organization may be dependent, as well as cultural expectations in which the organizations operate". The research on ethical governance implemented by universities originated from the rules imposed by each country (Joseph & Said, 2020).

In addition, the pressures to publish in universities (Zoljarga, 2020) exert formal pressures to implement research ethics governance. Higher education institutions are under pressure from internal stakeholders (e.g.: students and academic members) and external stakeholders (e.g.: government and international organizations). One of the most critical coercive pressures on universities stems from government policies and legal regulations (Kilic & Ataman, 2022). Meanwhile, normative isomorphism is normally developed by professional and occupational groups. It is argued that to fulfill the public trust, the research ethics governance culture needs to be enhanced and finally nurtured throughout the organization. Higher education institutions continue their activities in interaction at the national and international levels including education, training, and research. Higher education institutions are exposed to global normative isomorphism pressure as a result of professional networks (Kilic & Ataman, 2022).

Finally, mimetic pressure comes from the copying behavior among organizations due to the ambiguity of certain processes. Higher education institutions closely observe the organizations around them in order to continue their activities in a dynamic competitive environment. Higher education institutions tend to benchmark against other organizations to eliminate deficiencies and increase performance in this environment (Kilic & Ataman, 2022). Thus, it is maintained that universities refer to each other guidelines for research ethics governance to be considered legitimate. Anafinova (2020) investigated the role of rankings in Kazakhstani higher education policy and their influence on a group of national universities in Kazakhstan. The analysis draws attention to the role of the Kazakhstani government and accreditation agencies in developing coercive and normative isomorphism in Kazakhstani higher education.

Methodology

To achieve this objective, a content analysis of six universities' websites has been carried out extensively. Content analysis was selected as the most suitable methodology. The analysis of textual content on university websites is to assess the presence of information related to research ethical practices (see Ahmad et al., 2021; Joseph et al., 2019). The content analysis was performed in January 2022 and involved three universities' websites from developed and developing countries respectively. The universities from developed countries are UE (UK), UM (USA), and UMB (Australia) which have established research infrastructures. The universities often serve as benchmarks for research ethical practices, are also frequently cited in international rankings, and offer insights into research ethics governance in well-established academic settings. Meanwhile, the universities from developing countries are UC (Africa), the US (Singapore), and UD (India) with varying degrees of research infrastructure and resources. Singapore is known for its rapid development and investments in research and education, making it an interesting case study for a developing country. India, with its diverse higher education landscape, provides insights into research ethics governance in a populous and emerging academic context. Africa was included to represent a range of nations with diverse research capabilities which reflect the challenges and opportunities faced by developing regions. The justification for these six universities is due to their excellent performance in terms of ranking in each country. The selection of countries for this study was driven by a combination of factors including the need for diversity in research contexts and the availability of data. To facilitate a meaningful comparison, this paper presents uniform and comparable information under the description of all selected universities in terms of research ethical practices. This information encompasses key aspects of research ethics governance such as ethical guidelines, mechanisms for oversight, and transparency in reporting. By providing consistent data points for each university, comparative analysis is both rigorous and informative.

The selection of these universities was guided by academic, regional considerations and ethical research principles which are:

(a) Ethical Considerations:

The choice of universities was made with careful attention to ethical research practices. The institutions are acknowledged for their commitment to research ethics governance as evidenced by their adherence to ethical guidelines, transparency in research conduct, and promotion of responsible research practices.

(b) Transparency and Accountability:

One of the key ethical principles in research is transparency. The universities demonstrate transparency in their research processes including clear communication of ethical review procedures, informed consent protocols, and data management practices on their websites.

(c) Inclusivity:

Ethical research practices often include a commitment to inclusivity and diversity. This paper aimed to represent universities from diverse regions, reflecting a commitment to inclusivity in this study.

(d) Respect for Participants:

It is ensured that the universities selected for analysis uphold ethical principles related to the respect and protection of research participants. This includes clear policies and guidelines on human and animal research ethics and confidentiality measures.

Table 1 summarizes the justification for each university's selection.

The entire web page relating to the research ethical governance practice has been explored, read several times, and reviewed. The information collection process involved a systematic and structured approach to extract relevant data from university websites. This paper refers to the study by Stoesz and Eaton (2022) to maintain methodological rigor and ensure the reliability of findings. The process can be summarized as follows:

- 1. Defining Data Categories: Prior to data collection, specific categories of information that were relevant to our study have been identified such as:
- · Ethical guidelines and policies
- Research ethics committees and their roles
- Ethical review processes
- Transparency in reporting research ethical practices
- Eco-system

An extensive literature review was conducted to identify common themes, best practices, and key elements pertaining to research ethics in higher education. This literature

	University	Description
1	UE	One of the world's top research-intensive universities, consistently ranked in the world top 50*, and placed 16th in the 2022 Quacquarelli Symonds World University Rankings and ranked 4th in the UK for research power (Times Higher Education, Overall Ranking of Institutions).
2	UC	UC leads, in Africa, in all five of the major world university rankings: Times Higher Education, Quacquarelli Symonds, Center for World University Rankings, U.S. News and World Report Best Global Universities Rankings, and Shanghai Ranking's Academic Ranking of World Universities.
3	UM	The best public university in the US.
4	UMB	The top three universities in Australia.
5	US	US is ranked 46th in the World University Rankings 2022, 61-70th in the World Reputation Rankings 2021, and 2nd in the Young University Rankings 2022.
6	UD	The University has maintained its position at the top in the country as per Centre for World University Ranking (CWUR) ranking and is 8th in the National Institutional Ranking Framework. It is also among the top 10 Indian public educational institutions/universities and the first among Indian public universities under QS BRICS University Rankings.

 Table 1
 Justification for the university's selection

Source: university's websites

review served as the foundational step in item selection, identifying established areas of interest within the field of research ethics.

- Website Selection: The universities are selected from developed and developing countries based on predetermined criteria, ensuring diversity in terms of regional representation.
- 3. Website Navigation: The official websites of the selected universities, specifically targeting sections related to research, ethics, or compliance are navigated. These sections often include information on research ethical practices. Simultaneously, the entire web pages of the selected universities were thoroughly explored, read, and reviewed. During this process, additional specific elements and practices related to research ethics that were prominently featured on the websites are identified.
- 4. Keyword Search: Within the Identified Website Sections, Keyword Searches Using Terms Such as "Research Ethics," "Ethical Guidelines," "Ethics Committees," and "Compliance" Are Conducted. In this Way, Relevant Content within the Websites Could Be Traced Efficiently
- 5. Data extraction: For each university data based on the predefined categories are systematically extracted. This included recording the presence or absence of specific information details about research ethics committees and transparency of information provided. The final research ethics governance checklist consists of 23 items

The research ethics governance items under five categories are as follows:

- (a) Ethical guidelines and policies
 - 1. Core compliance
 - 2. Researchers' responsibilities relating to research integrity and ethics

- 3. Adoption of national ethics policy
- 4. Research misconduct policy
- 5. Conflict of Interest
- 6. Research funder ethics policy and guidance
- 7. International statements on research integrity
- 8. Code of practice for research
- 9. Controlled unclassified information
- (b) Research ethics committees and their roles
 - 1. College Ethics Leads and College Research Offices / Research Integrity Advisors (RIA) / Research Integrity Points of Contact (RIPOCs
- (c) Ethical review processes
 - 1. Research misconduct explanation
 - 2. Research misconduct procedure flowchart
 - 3. Research ethics and integrity review
- (d) Transparency in reporting research ethical practices
 - 1. Reporting of research misconduct
- e) Eco-system
- 1. Research support
- 2. Individual college or faculty governance
- 3. Responsible research specific to collaborators
- 4. Professional service support
- 5. Leadership and contacts
- 6. Training and support resources
- 7. Advice and support contacts
- 8. Research data management
- 9. Human research during COVID-19

The presence of research ethics governance will be awarded '1' and '0' if otherwise. In order to enhance the reliability of findings, inter-rater reliability was conducted. It was carried out to assess the agreement among researchers in their interpretation of website content. This step was crucial to establish consistency in the analysis.

Results and Discussion

Table 2 presents the findings from the content analysis conducted on six universities' websites.

Additionally, a descriptive and rank analysis was implemented. The ranking for disclosure of research ethics governance practice information by universities are as follows: 1)

 Table 2
 Analysis of research ethics governance practice information

	Category	UE	UC	NU	UMB	SU	D
а	Ethical guidelines and policies						
_	Core compliance			>	>		
5	Researchers' responsibilities relating to research integrity	>	>	>	>	>	
3	Adoption of national ethics policy	>	>	>	>	>	>
4	Research misconduct policy	>		>	>	>	
5	Conflicts of interest	>	>	>	>		
9	Research funder ethics policy and guidance	>			>	>	>
7	International statements on research integrity	\geq	>	>	>	>	
8	The code of practice for research	\geq	>	>	>		>
6	Controlled Unclassified Information (CUI)			>			
b.	Research Ethics Committee and Their Role						
	College Ethics Leads and College Research Offices / Research Integrity Advisors (RIA) / Research Integrity Points of Contact (RIPOCs	>	>		>	>	
	Ethical Review Process						
_:	Research Misconduct Explanation	>	>	>	>	>	
2.	Research misconduct procedure flowchart	>		>	>	>	
3	Research Ethics and Integrity Review Group (REIRG)	\geq	>	>	>	>	>
d.	Transparency in Reporting Research Ethical Practices						
1.	Reporting of Research Misconduct	>	>	>	>	>	
e.	Ecosystem						
_	Research Support Hub	\geq	>		>	>	
2	Governance - Individual college or department/faculty research strategy	\geq	>	>	>	>	
3	Responsible Research specific to collaborators	\geq			>		
4	Support and information from professional services	\geq	>	>	>	>	
5	Leadership and contacts	>	>	>	>	>	
9	Training and support resources	\geq	>	>	>	>	
L	Advice and currents contacts	/~	/•	/•	/*	/*	

	Category	UE	UC	ПM	UMB US	NS	Ð
1	Research data management	>	>	>	>		
	Human Research During COVID-19			>			
		20	16~(69.5%)	19	21	17	4
		(87%)		(82.6%)	(91.3%)	(73.9%)	(17.4%)

UMB in Australia (91.3%); 2) UE in the UK (87%); 3) UM in the USA (82.6%); 4) US in Singapore (73.9%); 5) UC in Africa (69.5%) and UD in India (17.4%). It appears that university websites in developed countries reported more research ethical governance practice information as compared to those in developing countries. This is well supported by Nho (2016) who discussed the difference in values between East Asian and Western that shape the application of the research ethical governance practice. The three universities from developed nations represent Western values. This is important in ensuring the system's effectiveness in achieving compliance is included in research ethics governance (Canario Guzmán et al., 2022). All six university understudies adopted a national policy relating to research ethics governance. This indicates the existence of coercive pressures for universities to implement national research policies. In order to protect and advance the power of knowledge without any vulnerability with regard to ethical issues, all researchers linked with universities should get informed permission (Sorin et al., 2021).

The universities are aware of the consequences of not complying with such policies and scrutiny from external regulations. It is important for the universities and institutions responsible for conducting research to ensure there is no legitimacy gap in compliance with the national research framework (Allen, 2008). The statements are depicted on several universities' websites.

Breaches to research integrity can be damaging to individuals and to institutions, undermine public trust, and in worst cases can cause harm - UE.

Ethical and responsible conduct of research is critical for excellence, as well as public trust, in research – UC.

Policies and procedures for conflicts of interest are necessary because: the Higher Education Act and UC's institutional statute require them the citizenry and public stakeholders (including research funding agencies) have a legitimate expectation that the university will both conduct, and be seen to conduct, its affairs (including all research) with integrity and objectivity - UC.

It is a fundamental responsibility of UM faculty, staff, students, and administration to maintain the trust of the public in all research and scholarly activity and to preserve the university's reputation for high standards of scholarly integrity - UM.

We uphold our ethical obligations for: responding to public expectations regarding responsible research and responding to heightened scrutiny and audit by external regulators – UMB.

In addition, a specific country requirement also influences the implementation of research ethics governance practice which in turn is reflected in disclosure practice as a sign of coercive pressure. This is because successfully governed research should consider ethics at the planning stages prior to research (Sivasubramaniam et al., 2021). The UE has implemented the UK Research Integrity Office's (UKRIO) Code of Practice for Research and the Universities UK (UUK) Concordat to Support Research Integrity. The Research Integrity Concordat targets to offer a countrywide agenda for good research conduct and governance. This is to ensure continuous confidence or trust by stakeholders in the research conducted in the UK by prominent scholars. This indicates the presence of coercive pressure in the implementation of research ethics governance in UK universities. Another item that is disclosed by all universities' websites is the Research Ethics and Integrity Review

Group / Research Integrity Committee or Network of Research Integrity Points of Contact. An example of the disclosed item is provided by UM in the USA.

Research Ethics and Integrity Review Group (REIRG) promotes awareness and training in Integrity and Ethics, as well as identifying gaps in policy and ensuring that information on all aspects of integrity, ethics and governance are visible and up to date. REIRG meets three times a year - UE.

The Human Research Protection Program – UM is an institutional-wide program coordinated by the University and composed of the executive officers, research review committees, and other entities that are responsible for protecting the rights and welfare of participants in research conducted or reviewed by the UM - UM.

There are 17 items disclosed by more than 50% of the university websites. They are 1) Research support; 2) Individual college or faculty governance; 3) Professional service support; 4) Leadership and contacts; 5) Researchers' responsibilities relating to research integrity and ethics; 6) Training and support resources; 7) Advice and support contacts; 8) Research integrity advisors; 9) Research misconduct explanation; 10) Reporting of research misconduct; 11) Research misconduct policy; 12) Research misconduct procedure flowchart; 13) Conflicts of interest; 14) Research data management; 15) Research funder ethics policy and guidance; 16) International statements on research integrity and 17) code of practice for research.

The normative isomorphism can be seen in the adoption of guidelines, codes of conduct, and training to promote the research ethics governance culture within the universities. According to Chou et al. (2022), individual research organizations and universities are required by laws and regulations to be in charge of promoting the integrity of their own research. For example, the College of Arts, Humanities, and Social Sciences (CAHSS) in UE has a research ethics framework. This framework for the ethical conduct of research is guided by principles of dignity, respect, care for others, honesty, integrity, objectivity, accountability, openness, and leadership. In UE, training on misconduct is regularly conducted to improve awareness and understanding of the research integrity. The research ethics governance is embedded in the University's ethos and culture. Another mechanism that promotes the research integrity culture is the Code of Practice for Research which is an essential reference tool to support researchers and research organizations in the conduct of research of the highest quality and standards. A general overview of research ethics governance is important to be conducted in accordance with the best practices (Yip et al., 2016). According to Ferguson et al. (2007), the institutional culture of responsibility in conducting the research could be enhanced via regular promotion of ethical governance, and reporting of research.

Mimetic isomorphism is evident in the adoption of international statements on research integrity. It is interesting to note that the Singapore Statement (2010) is referred to by five universities in this chapter. Singapore is an example of a country that incorporates ethical guidelines adopted from the World Health Organization's Code of Conduct for Responsible Research. The Singapore statement on research integrity is a sign of mimetic isomorphism at the international level. As indicated on the UMB website:

These principles and responsibilities are influenced by the Singapore Statement (2010). This Statement guides good research practice for individuals, organisations and governments globally -UMB.

In a nutshell, the isomorphism conception which is coercive, normative, and mimetic can explain the research ethical governance practices disclosure on universities' websites. Other observations are as follows:

- UMB in Australia encourages understanding and respect between Indigenous and non-Indigenous Australians. This indicates the uniqueness of people in a specific country is considered in the research ethics governance at universities. This also highlights the principle of 'respect for people adopted in the research ethical governance practice.
- Different universities have different research ethics governance. For example, UC in Africa has two separate senate-level committees which are the Senate Ethics in Research Committee (ERC) and the Faculty Governance Research Ethics Committee.
- Conflict of interest is an important element in research ethics governance. It is interesting to note that the UC uses the website to manage conflicts of interest as stated below:

Through this website, UC ensures public access to information for all disclosures made by a researcher and/or related to research projects that present an identifiable conflict of interest – UC.

Four out of six websites highlighted that conflict resolution in the form of disclosure of conflict of interest including the financial aspect. Universities in both developed and developing countries have an equal emphasis on managing conflict of interest. UC, for example, under the responsibility of the university's Senate implemented: 1) policy relating to the conflict of interest; 2) training for conflict of interest; 3) conflict of resources, and 4) conflict of interest tutorial. Hence, the university Senate plays an important role in promoting the research ethical governance practice.

Only one website in the developing country did not spell out personal ethics which is UD. Two websites from developing (UC) and developed (UM) countries respectively indicated that disclosing and declaring a conflict of interests is part of researchers' individual responsibility.

Researchers or investigators are encouraged to undertake and retain documentation of training in financial conflicts of interest. Training must be completed before engaging in research, and at least once every 4r years after that for the duration of the investigator's affiliation(s) with UC. - UC.

Other responsibilities by researchers as highlighted on UE's website include complying with and operating in accordance with the principles and practices set out in the UKRIO Code of Practice, being aware of college research integrity and ethics policies and procedures, understanding the funder policies and guidance on research integrity and uphold research ethics and ensure integrity is shared between the institution and the individual. This is important to the government in ensuring the implementation policy to promote research ethics governance such as regulations governing systems, budget, education, and expert training (Chou et al., 2022). Meanwhile, UM has the HRPP Operations Manual that outlines the policy in detail which needs to be carried out at a high level by investigators and research staff.

In relation to the authorship in publication, only one website of the developing country university did not provide such an explanation (UD). Two universities' websites from developed countries (UM and UMB) have more information compared to the UE website. The UM has a guideline that describes the importance of authorship and defines the basis for authorship

and non-author contributors and a guideline for authorship and avoiding authorship disputes. Meanwhile, the UMB website specifically stated the importance of complying with the Australian Code for the Responsible Conduct of Research Authorship. Based on the observation, the UMB expanded the scope of the researcher beyond staff by clearly including the importance of postgraduate students' role as the university's researchers. Meaning to say, postgraduate students are expected to comply with the research ethics governance requirements of the university and supervisors are responsible for monitoring the process. According to Makola and Ntoyanto-Tyatyantsi (2023), a positive relationship between a supervisor and their student is also vital since supervisors provide mentoring to their students through practical guidance such as guiding the student on the application of the institution's research ethical policies.

Moreover, the UM website is the only one that maintains the Controlled Unclassified Information (CUI). The implementation of CUI security controls when the Federal contract/award contains language/clauses (e.g., FAR, DFARS, NIST SP) requiring such controls. This signifies the country's requirement that needs to be compiled by US scholars. The UM website is the only website that discloses specific requirements for human research during COVID-19. Researchers are required to comply with the policies within the state and the COVID-19 preparedness and response Plan. The health screening process is also applicable to study participants. The Frequently Asked Questions (FAQs) are also provided on the web page. This indicates the research governance in the advanced country is more sensitive to the external environment which may affect the integrity of overall research. Gaillard and Peek (2019) stated that a code of ethics that is well-fitted to the particulars of each nation is necessary for a good approach to all university research because it cannot be assumed that everyone will work diligently and morally.

However, only the UE website has emphasized the relationship between research members, particularly with international partners. UE has demonstrated a high commitment towards the partnership and engagement with other members as included in the Public Engagement with Research policy, linked to University Strategy 2030.

Responsible research is a new initiative that provides guidance, information, and support to ensure our international collaborations are undertaken securely, to protect our University values, world-leading reputation, and integrity – UE.

The initiative supports researchers to have confidence in international collaboration and advice and guidance about the risks involved in international collaboration. According to Chou et al. (2022), governments have contributed significantly to the advancement of research ethics governance. The initiative is coordinated by the UE Global Partnerships team. Other disclosures include 1) Training on navigating research collaborations (UC); 2) Integrity principles and responsibilities for the international research community (UM); 3) Ethical conduct of research that underpins research relationships with collaborators and partners (UMB); 4) Collaborative research under the Australian Code for the Responsible Conduct of Research; and 5) Guidelines on External Research Collaboration (US). It seems that the information pertaining to the relationship between research members is stated generally on websites.

Conclusion

This paper aims to analyse research ethical practices information on universities' websites from three developed countries and developing countries respectively using the isomorphism conception. The existence of coercive pressures on universities can be seen in the implementation of national research policy. The normative isomorphism appears in the adoption of guidelines, a code of conduct, and training to promote the research ethics governance culture within the universities. Mimetic isomorphism is evident in the adoption of international statements on research integrity. It is interesting to note that the Singapore Statement (2010) is widely referred to by universities under study. Thus, websites have an important role in promoting organizational visibility and at the same time as a strategic tool to promote the research ethics governance culture.

In the pursuit of understanding and evaluating research ethical governance practices at universities across diverse countries and regions, this paper has yielded valuable insights that transcend the boundaries of data collection and analysis.

There are several implications from this paper. Firstly, this paper involves the global landscape of research ethics governance. Through the lens of university websites, this paper has ventured into the complex landscape of research ethics governance. This study has shed light on the multifaceted approaches and commitments of universities in developed and developing countries toward upholding ethical standards in research. The global variation in the presentation and depth of research ethical practices reflects the diverse cultural, institutional, and regulatory contexts in which universities operate.

Secondly, transparency is a key driver in promoting research ethics governance. One resounding theme that emerges from the analysis is the role of transparency in research ethical governance. Universities that openly communicate their ethical guidelines, committee structures, and review processes not only demonstrate accountability but also foster a culture of trust among researchers, participants, and the broader academic community. Transparency is not merely a checkbox but a cornerstone of effective research ethical governance practices.

Thirdly, the need for comprehensive research ethical frameworks is necessary. The study highlights the importance of comprehensive research ethical frameworks that encompass diverse aspects of ethical governance. It becomes evident that future efforts should extend to encompass other critical dimensions including research involving animals and international dimensions such as copyright laws.

Fourthly, recognizing regional nuances is also emphasized. The diversity in research ethical practices across regions and countries is a testament to the unique challenges and opportunities faced by universities worldwide. Understanding these regional nuances is paramount for fostering cross-border collaborations, sharing best practices, and addressing ethical dilemmas that may vary in nature and magnitude.

Fifthly, a call for continuous improvement is highly encouraged. This study serves as a call to action for universities and institutions responsible for research. It is evident that while progress has been made, there is room for improvement in the realm of research ethical governance. The insights gained from this study can guide universities in their endeavors to enhance ethical practices, streamline oversight mechanisms, and bolster transparency.

Lastly, a noteworthy implication of our findings is the observation that only the UM in the US has a policy pertaining to research involving human participants during the COVID-19 pandemic. Therefore, it is advocated that the widespread dissemination of this information particularly in the post-COVID-19 recovery era is important to ensure the application of principles that prioritize the safety and well-being of human participants in research. Such efforts can further enhance mimetic isomorphism to foster a culture of research integrity.

While this study offers valuable insights, it is important to acknowledge its limitations. The modest sample size, drawn from both developed and developing countries, constrains the ability to provide an exhaustive exploration of research ethical governance practices across universities. Moreover, this paper primarily focused on institutional and professional ethics. Hence, those in the medical and legal professions remain unexplored in this context.

Furthermore, findings gathered through website analysis provide an informative overview of research ethics practices as presented on university websites. However, it is worth noting that not all pertinent information may be publicly disclosed on these websites. Thus, the absence of evidence does not necessarily indicate the absence of such practices. To build upon this research, future investigations could expand their samples to encompass a more diverse array of universities from both developed and developing countries. Employing a combination of surveys and interviews could deepen our understanding of research ethical governance practices.

Despite these limitations, this study provides valuable insights into research ethical governance practices as presented on university websites. Steps have been undertaken to mitigate potential biases and enhance the transparency of the research process. Future research is encouraged to build upon this work, addressing these constraints for a more comprehensive understanding of research ethics governance practices worldwide.

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