
Assessing the Implementation of University Management Strategies for Combating Examination Misconduct in Tanzanian Universities

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ABSTRACT: *This study assessed the implementation of university management strategies for combating examination misconduct in Tanzanian universities. It was guided by the Theory of Planned Behaviour (TPB) developed by Ajzen in 1991. The study employed a convergent research design under mixed methods research approach. The target population was 27 universities, 51,489 students, 708 lecturers, 27 chief examination officers and 27 directors of quality assurance from which the sample size of 460 was selected through probability and non-probability sampling procedures. A questionnaire, document analysis guide and interview guide were used to collect data. Source triangulation and research experts ensured validity. Reliability was ensured through Cronbach alpha and intercoder agreement techniques. Quantitative data was analysed using descriptive and inferential statistics whereas qualitative data was analysed through thematic analysis. The study found that strategies such as penalties for examination offenders and checking for students' illegal material were moderately implemented and there was a significant relationship between the levels of implementation of university management strategies for combating examination misconduct and the occurrence of various forms of examination misconduct in Tanzanian universities. The study concluded that university management strategies were not effectively implemented. The study recommended that universities in Tanzania in collaboration with Tanzania Commission for Universities should review and/or formulate academic integrity policies that will specify and uphold universities' ethical principles and values as well as practice of appropriate examination conduct procedures and regulations to realize the aspiration of producing quality graduates.*

KEYWORDS: Implementation, management strategies, combating, examination misconduct, Tanzanian universities.

INTRODUCTION

Education is a process of acquiring and developing new knowledge, skills and competencies necessary for individual, society and national development. University education is a prerequisite for national development. The Government of Tanzania (GoT) has been striving to improve the development and quality of its higher education sector (URT, 2018). Fostering a university education enables graduates to possess the requisite knowledge, skills, values, and competencies to diligently undertake specific professional tasks and to develop ethical behaviour for national development endeavours (Guerrero-Dib et al., 2020). In this regard, Higher Education Institutions (HEIs) are expected to produce graduates with indispensable expertise for solving societal, national and global challenges. Therefore, HEIs should reinforce commitment among students and academic staff that embraces educational integrity to attain expected learning outcomes (Peters, 2019; Stoesz et al., 2019). Toward this end, universities need to develop and effectively implement institutional integrity management strategies that combine policies and good academic practices (Kasler, 2019).

The process of developing institutional integrity management strategies may consider, among other things, regular reviews of institutional academic integrity policies and processes coupled with decision-making systems (Bertram-Gallant et al., 2015). Additionally, the process should consider an understanding of students and their engagements, enhancement of commitment to their studies, revisiting record keeping, assessment practices and implications for staff professional development schemes. Integrity in education is founded on principles of respect for knowledge, honesty and truth in academic activities (Karanauskienė et al., 2020).

Besides, examinations are used as assessment tools where the knowledge, skills and competencies of candidates are evaluated to establish the credibility and relevance of university education. Different forms of examinations are administered for various purposes (Karanauskienė et al., 2020). For instance, applicants are required to show evidence of scores from secondary school leaving examinations (SSLE) that meet designated thresholds before being admitted to different academic programmes in HEIs. In a similar context, Onyibe et al. (2015) noted that an examination is a yardstick to measure the progress of candidates after undergoing a given training and acts as a tool to decide who should be permitted to pursue the next level of studies. While studying in HEIs, students are required to sit for semester examinations and some might be required to sit for special/supplementary examinations (TCU, 2019a; TCU, 2019b).

When inconsistencies, discrepancies or examination misconduct happen, the reliability and validity of the results as well as the relevance of education provided in HEIs are threatened. Examination misconduct is an issue of growing concern, as it has been compromising education systems globally (Baran & Jonason, 2020; Denisova-Schmidt, 2017; Keter et al., 2020).

Regardless of the efforts being undertaken for curbing the menace, the problem persists (Mulongo et al., 2019). In the case of Tanzania, based on the reviewed literature little has been done to address the issue of examination misconduct specifically, on the level of implementation of university management strategies for combating examination misconduct in Tanzanian universities.

To address different types of academic misconduct, including different forms of examination misconduct and plagiarism, HEIs need to reinforce the commitment of students and academic staff to educational integrity (Keefer, 2019; Peters, 2019; Stoesz et al., 2019). According to the International Center for Academic Integrity [ICAI] (2021), academic integrity was defined as a commitment, even in the face of adversity, to five fundamental values: honesty, trust, fairness, respect, and responsibility. Consequently, those values lead to principles of behaviour that enable actors to translate ideals into action. To create and foster academic integrity culture, there is a need to implement an institutional integrity strategy that combines policies and good academic practices (Bertram-Gallant et al., 2015). Based on the foregoing, an analysis undertaken by Stoesz et al. (2019) on characteristics of academic integrity policies of colleges in Ontario, Canada revealed, among things, the absence of specific and direct language to contract cheating as well as lack of clear definition concerning the underlying policy principles. Therefore, it was imperative to revise academic integrity policies in Canadian tertiary institutions and specifically to address the issue of contract cheating.

In tertiary education in Tanzania, examinations are handled following institutional quality assurance (QA) systems that are also interpreted as examination rules and regulations. Institutional QA systems are guided by respective University Charters to realize institutional vision and mission statements. As per Section 5(1) of the Universities Act, Cap. 346 of the Laws of Tanzania that was enacted in 2005 and University (General) Regulations, GN. No. 226 of 2013, Tanzania Commission for Universities (TCU) regulates QA systems that cover examinations for HEIs (TCU, 2019a; TCU, 2019b). Among its mandate, TCU executes its functions to ensure compliance of the 30 accredited universities and 17 colleges, without including university centres (TCU, 2021), with Standards 3.13 on University Examinations and Student Assessment and Guidelines 3.13.1 and 3.13.2 (TCU, 2019a).

Despite the existence of the policy governing examinations in HEIs under the spotlight of TCU, several cases of examination misconduct have been reported. In January 2021, for instance, the Prevention and Combating of Corruption Bureau (PCCB) arraigned 13 students of the Institute of Rural Development Planning (IRDP) for solving questions of a supplementary third-year course of Applied Statistics outside designated venues and for attempting to sneak their answer booklets into examination venues (Anonymous, 2021a, January 18). Furthermore, the President of the United Republic of Tanzania gave a directive, on March 28, 2021, to the PCCB to investigate cases of corruption relating to examination leakages besides cases of sextortion that were reported in some HEIs. Indeed, continued reporting of examination irregularities in several HEIs

within Tanzania raised questions on the implementation and efficacy of institutional strategies for curbing examination misconduct as per TCU directives.

Despite the existence of institutional rules and regulations that govern university examinations, several cases of examination irregularities have been reported in several institutions within and beyond Tanzania (Baran & Jonason, 2020). However, there is an inadequacy of literature that focuses on the assessment of the implementation of university management strategies to mitigate incidences of examination misconduct. In the case of Tanzania, few studies had been done to address issues of examination misconduct. Specifically, the literature is inadequate on the assessment of the implementation of strategies used to curb examination misconduct and the extent to which they are implemented in universities in Tanzania. Therefore, this study was undertaken to fill the gap.

Statement of the Problem

There have been many reported cases of examination misconduct in higher education institutions in Tanzania and beyond. In recent years, several stakeholders of higher education have been complaining about the quality of many graduates from HEIs within Tanzania and other countries. Despite their good grades, as indicated in their academic transcripts and degree certificates, graduates are incompetent in both hard and soft skills as per the changing demands of the labour market (Situma & Wasike 2020; Mwita, 2018). Several studies have been undertaken to examine prevalent forms of examination misconduct in HEIs, the causes of such forms of examination misconduct, and possible solutions for curbing the misconduct (Cinali, 2016; Baran & Jonason, 2020; Mulongo et al., 2019; Nyamoita & Otieno, 2016). However, there has been an inadequacy of literature that focused on the assessment of the implementation of university management strategies for alleviating examination misconduct in universities. In the case of Tanzanian universities as revealed in the reviewed literature, little has been done to investigate issues of examination misconduct. This study, therefore, filled the gap by assessing the implementation of university management strategies for combating examination misconduct in Tanzanian universities.

The Purpose of the Study

The purpose this study was to assess the extent to which university management strategies are implemented to combat examination misconduct in Tanzanian universities.

Research Question and Hypothesis

Research question

To what extent do universities implement management strategies for combating examination misconduct in Tanzania?

Research Hypothesis

There is a significant relationship between the levels of implementation of management strategies and the occurrence of various forms of examination misconduct in Tanzanian universities.

Theoretical framework

This study was guided by the Theory of Planned Behaviour (TPB) developed by Icek Ajzen in 1991 (Ajzen, 1991). The theory maintains that three core components, namely, attitude, subjective norms, and perceived behavioural control, shape an individual's behavioural intentions. A person's attitude towards a specific behaviour is a function of his/her beliefs, which refer to the perceived consequences of carrying out a specific action and his/her evaluation of each of these consequences. This state of affairs explains a person's intention to perform a given behaviour or to avoid it. When a person has a higher intention to perform a given behaviour, it is more likely that he/she would engage in that behaviour. Students' engaged in various forms of examination misconduct due to their attitude and the perceived gaps in implementation of university management strategies. The theory clearly explains the reason for students' engagement in different forms of examination misconduct, as they hope to get an advantage by scoring good grades and accessing reputable certificates and how this problem can be addressed by enforcement of appropriate university management strategies for combating examination misconduct (Brimble, 2016).

However, the theory did not consider other variables that can influence students' engagement in examination misconduct, such as fear of failure and threat, which is caused by examination anxiety or experience of student cheating in primary and secondary school examinations. The TPB describes both the motivation for students' engagement in examination misconduct and how effective implementation of university management strategies can help in preventing cheating. Therefore, it establishes linkages between the effective implementation of university management strategies and the prevalence of various forms of examination misconduct. In this regard, examination misconduct happens as a result of students' intention to cheat and the gaps in the university management strategies. The relevance of the theory to this study is that it explains why students engage in various forms of examination misconduct and how the enforcement of university management strategies can address such forms of misconduct.

LITERATURE REVIEW

Some empirical studies had been carried out to establish universities' levels of implementation of institutional management strategies to combat examination misconduct. To begin with, Sattler et al. (2017) conducted a study that focused on 10 management strategies that were frequently used to detect and prevent academic dishonesty in four universities within German. In addition, the study investigated factors shaping the use of corresponding management strategies. A survey research design was used for collecting data, through email addresses, and analysing it. Specifically, data was collected from 3,655 respondents who were randomly sampled from 55 academic disciplines.

Concerning the level of implementation management strategies for combating examination misconduct, the findings revealed that respective universities frequently implemented management strategies by ensuring adequate distance between candidates, clarity of examination rules and regulations to students and staff, adequate invigilators in examination venues as coupled with restriction of unauthorized materials in examination venues. It is worth noting that Sattler et al. (2017) study informed this study on the extent to which universities in Ghana implemented various strategies to curb examination misconduct. Therefore, there was a need for similar studies to be conducted in universities within Tanzania to find out the degree to which university management strategies were implemented to come up with possible solutions to curb the menace. However, Sattler et al. (2017) used a simple random sampling procedure to select participants who were not homogenous which might raise questions about the validity and reliability of the research findings. In addition, the researchers did not provide the requisite details on how the sample size was established. This state of affairs raised questions on the representativeness of a designated sample for the study. In this regard, this study attempted to fill the gap by clearly specifying the representative sample size as established through probability and non-probability sampling techniques, which validated the research findings.

Besides, Harper et al. (2019) conducted a study on contract cheating among staff members in eight universities in Australia. Specifically, the study investigated the experiences and attitudes of staff members towards students' academic dishonesty and investigated contextual and institutional factors that hindered or supported the extent to which strategies were implemented to reduce academic dishonesty. Also, the study employed a survey research design to collect and analyse data and the target population encompassed all teaching staff from respective universities in South Australia. The study adopted a convenience sampling technique to select designated universities. Data were collected using the questionnaire through the staff email system. The sample size comprised 1,147 respondents.

The research findings unveiled that, warnings, counselling, zero awards for assignments and penalties were strategies used to mitigate academic dishonesty. However, these strategies were not

effectively implemented. The implementation of the identified strategies was moderate and sometimes low. For instance, penalties for offenders who engaged in contract cheating were unpredictably lenient. In addition, the findings indicated that feedback about processes of addressing academic dishonesty was rarely given to staff. This state of affairs contributed to staff members' unwillingness to refer cases to the top authorities. In addition, the findings revealed a lack of uniformity in the application of penalties for culprits and countrywide principles on what constitutes academic integrity.

The study provided useful information to this study on the extent to which respective universities in Australia implemented strategies to mitigate academic dishonesty. However, Harper et al. (2019) largely focused only on plagiarism, which is one type of academic misconduct. Therefore, this study filled the gap by assessing the degree to which universities in Tanzania implemented strategies to curb examination misconduct as another type of academic misconduct in universities within Tanzania.

It is worth noting that the use of a convenience sampling technique to select respective universities and respondents for a study conducted by Harper et al. (2019) is not compatible with a survey design which falls under a quantitative research approach (cf. Creswell and Clark, 2018). This mismatch might raise questions about the credibility of the study findings. Based on the aforementioned shortcomings, this study filled the gap by using probability and non-probability sampling techniques to obtain a representative sample which, in turn, ensured the trustworthiness of the findings. Furthermore, Harper et al. (2019) used only a questionnaire to collect data which limits opportunities to triangulate sources of information to validate research findings. Consequently, this study collected data through questionnaires, interview guides, document analysis guide and observation guide to triangulate the information to enhance the credibility of the findings.

Furthermore, Asiyai and Oghuvbu (2020) investigated the prevalence of crime and the administrative strategies that were used by in Nigeria to address them. The purpose was to identify prevalent crime in HEIs and to find out the degree to which administrative strategies were implemented to curb such crime. The study adopted a survey research design and focused on public HEIs in southern Nigeria. Additionally, the study used a stratified simple random sampling technique to a sample of 932 respondents from two colleges of education in a designated study area. The findings of the study revealed common forms of crime as sexual harassment for marks, assault, certificate forgery, examination malpractice and plagiarism. Also, the study established that both HEIs used different strategies to curtail examination misconduct which included examination orientation, the use of CCTVs, and other electronic devices to validate candidates' information. They were expected to mitigate or eradicate impersonation in exam venues. In addition, the findings indicated that the degree of implementing the identified administrative strategies for mitigating crime in Nigerian HEIs was low.

The study by Asiyai and Oghuvbu (2020) enlightened this study by providing valuable information on low levels of implementation of institutional strategies to curb examination misconduct in Southern HEIs within Nigeria. However, the study focused its findings on prevalent crime in Southern Nigeria HEIs in general both academic and non-academic crime. In this regard, there was a need to conduct an empirical study in the context of Tanzania, which has different socio-economic settings from those in Nigeria to specifically assess the extent to which HEIs were implementing management strategies for combating various forms of examination misconduct. It is worth noting that the use of only a questionnaire to collect data from respondents might lead to inadequate information. This was likely to compromise the validity and reliability of research findings. Therefore, this study employed various instruments to collect data that were triangulated to validate research findings.

Moreover, Ambani et al. (2019) undertook a study to assess strategies that were implemented by HEIs in Mount Kenya Region within Kenya to curb examination malpractices. The study adopted a descriptive research design and used a questionnaire to collect data from a sample of 380 students, and a purposive sampling procedure was deployed to sample five universities. The findings of the study revealed that some strategies, including examination invigilation, and checking of students before allowing them to enter the examination venues were not effectively implemented. The study by Ambani et al. (2019) offered useful information to this study on the extent to which strategies were implemented by HEIs in Mount Kenya Region within Kenya to mitigate examination misconduct.

In this regard, there was a need for a similar study to be conducted in universities in Tanzania to obtain more understanding of the degree to which university management strategies were being implemented to curb examination misconduct. In addition, the study focused on responses from students only. Thus, there was a need for the study to capture data from staff members who were also directly involved in the implementation of strategies for curbing examination misconduct to mitigate examination misconduct in Tanzanian universities.

However, drawing on Cohen et al. (2018), the use of a descriptive research design under a quantitative approach did not resonate well with the purposive sampling procedure in a study conducted by Ambani et al. (2019). This state of affairs might raise methodological questions about the trustworthiness of research findings. This study complemented the findings by using a convergent research design whereby, both probability and non-probability sampling techniques were used to ensure the credibility of the findings. Additionally, the administration of a questionnaire as the only data collection instrument might raise questions on the validity and reliability of research findings as it does not allow triangulation of information. This study, therefore, used a variety of instruments such as questionnaires, interview guides and document analysis guides as a means to triangulate the information and hence validated the research findings.

RESEARCH METHODOLOGY

The study employed a convergent research design under mixed methods research approach. The researchers collected both quantitative and qualitative data in a single phase, analysed them separately and merged them to see if they confirmed or disconfirmed each other. Then, the integration of information was done in the interpretation of the findings. The adoption of a convergent research design helped the researchers to cross-validate qualitative and quantitative information and hence confirmed the research findings. Besides, the convergent design allowed the researchers to collect data from a large sample that could be generalized to a wider population and from a natural setting. In addition, convergent design eased the researcher's time management as both forms of data were collected in a single phase. The target population was 27 universities, 51,489 students, 708 lecturers, 27 Chief examination officers (CEO) and 27 Directors of quality assurance (DQA). The sample of this study consisted of 380 students and 70 instructors selected through a stratified random sampling procedure. It also contained five chief examination officers and five directors of quality assurance who were selected purposively making a total of 460 respondents. .

This study drew its sample from two out of eight public universities and three out of 19 universities by using a proportionate sampling procedure. The names of universities were given letters A, B, C, D and E to ensure anonymity. Both quantitative and qualitative data collection instruments which included questionnaires for students and lecturers, interview guide for CEO and DQA as well as document analysis, were used. The validity of quantitative instruments was ensured by four research experts whereas the validity of qualitative instruments was ensured through source triangulation. Reliability in quantitative instruments was ensured through the pilot test; whereby Likert scale items in a questionnaire were subjected to SPSS software and Cronbach alpha coefficient for lecturers' instruments was 0.73 and the coefficient for students' instruments was 0.77. For qualitative instruments, reliability was confirmed through intercoder agreement. Quantitative data was analysed through descriptive statistics (Frequency, mean and percentage) and inferential statistics (spearman rank correlation). Qualitative data were analysed thematically using the seven steps as proposed by Creswell and Creswell (2023). The researcher organized and prepared data for analysis, read all the data, coded the data, identified themes (categorized the codes into themes), developed a storyline interpretation, further analysed data using an analytical framework and presented and interpreted the data. The analysis of data began from the initial stages of data collection. While the interviews were going on, the researchers were transcribing the information collected, analysed interviews conducted earlier and wrote notes, which were eventually included as verbatim in the final report and organised the structure of the study. Then, re-read the transcriptions to get a comprehensive understanding of arising issues.

Thereafter, data were coded to produce transcription of themes about their categories, which, in turn, assisted the researcher to present and interpret the data.

FINDINGS OF THE STUDY

The research question sought to find out the degree to which university management strategies for combating examination misconduct were implemented in Tanzanian universities. The information to address this question was collected from students and lecturers through questionnaires and interview guide to DQAs and CEOs as well as document analysis. Data collected from the questionnaires are summarized in Table 1.

Table 1

Response on the Levels of Implementation of University Management Strategies to Combat Examination Misconduct (n=431)

Implementation of strategies		X ₁	X ₂	Grand mean
i.	Examination orientation for students is done each semester	2.94	3.34	3.14
ii.	Penalties are fairly implemented for individuals who commit examination misconduct	3.15	4.19	3.67
iii.	Strict invigilation and use of instructional manual in the examination room	3.14	3.78	3.46
iv.	Examination rules and regulations for students and staff are clearly stated	3.92	4.56	4.24
v.	Students and staff support rules and regulations about examinations	3.38	3.96	3.67
vi.	CCTV cameras are available in the examination venues	1.44	1.19	1.32
vii.	Allocation of candidates in the examination rooms is done to ensure reasonable social distance	3.40	4.03	3.72
viii.	Students are checked for illegal materials as per institutional exam rules and regulations before being allowed to enter the examination venues	3.35	4.28	3.87
ix.	Students and staff who report cases of examination misconduct are rewarded	2.03	1.69	1.86
x.	Lectures set examinations that demand the application of students' critical thinking skills rather than memorization	3.10	3.47	3.29

Source: Field data (2023)

Key: X₁=mean for Students, X₂=mean for Lecturers

Data in Table 1 indicate that students and lecturers showed mean scores of 3.92 and 4.56 respectively. This indicates that examination rules and regulations in Tanzanian universities are clearly stated and known by students and staff. This shows a high level of clarity of

examination rules and regulations in Tanzanian universities. It further means that examination rules and regulations are disseminated to both staff and students through various channels of information such as placing them on notice boards, including them in the prospectus, and putting them in the library as well as on the university website to enable their accessibility. The findings are in agreement with those of the study by Sattler et al. (2017) which revealed that strategies including clarity of examination rules and regulations to students and staff were frequently implemented in universities. This was further reinforced during interviews with the CEOs and the DQAs from different universities. For instance, the CEO of University E said:

In our university, rules and regulations are clear and well stipulated in the university prospectus. We normally extract them and place them on students' notice boards. Also, rules and regulations are well explained to students and staff during examination orientation (*CEO E, Personal communication, 19 October, 2022*).

The DQA of University A had this to say: *Our students are aware of examination rules and regulations. They just contravene them intentionally. They are always oriented on examination rules and regulations (DQA A, Personal communication 3 November, 2022).*

Yes! We have a book for examination rules and regulations, which stipulated the penalties for those found contravening them. The rules and regulations are also found on the university website. Therefore, students are aware of examination rules and regulations (*CEO B, Personal communication, 9 November 2022*).

The information provided by the DQA and the CEO indicates that examination rules and regulations were clearly stated that students and staffs' awareness is high in Tanzanian universities. This implies that students who engaged in various forms of examination misconduct disregard stipulated rules and regulations purposefully since they were and are still being explained during orientations. Therefore, they were aware of what were required from them regarding examinations. The findings were in line with responses provided by students and lecturers that, the examination rules and regulations were well stipulated to both students and staff. Furthermore, during document analysis, the researchers witnessed the presence of examination rules and regulations and were provided with a copy from each of the visited universities. This implies that there was a high level of implementation of management strategies in terms of clarity of examination rules and regulations for students and staff in Tanzanian universities.

On the fairness of penalties given to individuals who engaged in examination misconduct, students and lecturers had the mean scores of 3.15 and 4.19 respectively, which means, for students, the implementation was moderate while for lecturers, it was high. The difference between the two group means is that students were the victims of penalties and, therefore, they might have the feeling that they were penalized unjustly. On the other hand, lecturers are the ones who

implemented penalties so they might be defending themselves for being unfair. Besides, it could be attributed to the lecturers' lack of awareness of the injustice done to students through penalties. The findings from students' responses were in line with Harper et al. (2019) who revealed that the implementation of strategies was moderate and sometimes low. Specifically, penalties for offenders who engaged in contract cheating were unpredictably lenient. Also, during interviews with the CEOs and the DQAs, it was revealed that the implementation of penalties for examination offenders was moderate as one of the DQAs of University A reported:

The university indeed has rules and regulations and those found contravening them are supposed to be penalized. However, the implementation I can say is moderate because some invigilators are not ready to report cases of examination misconduct. Sometimes even cases which are reported are compromised. You find some members of the examinations committee saying: "This student is poor so let us help him/her" and another student is treated differently (*DQA A, personal communication, 3 November, 2022*).

Moreover, the DQA of University D commented:

If I compare the past and now, there are some improvements. In the past, people were just reading books, chatting and doing whatever they wanted; even entering the examination venues with their mobile phones. Nowadays there is some improvement, especially in the implementation of penalties. There are several students who have been expelled or suspended. So, this has led to some improvement. I can say that we have not been there but we have improved (*DQA, personal communication, November, 2022*).

Besides, the CEO of University C had this to say:

It is not easy to say that in all situations penalties are effectively implemented. There are examination offenders who are penalized but there are situations when the rules and regulations are compromised. Some cases of examination misconduct are not reported or sometimes there is a bargain in effecting penalties to examination offenders. Therefore, its implementation is average (*CEO C, personal communication, 8 November, 2022*).

The foregoing views from DQAs and CEOs indicate that penalties for offenders of examination rules and regulations were not effectively implemented. In this regard, qualitative responses from the DQAs and the CEOs resonated well with categorical responses from questionnaires by students and lecturers as presented in Table 1. This implied that the strategy is moderately implemented in universities in Tanzania. This could be attributed to the lack of academic integrity and lack of professionalism among university staff, which led to a conflict of interest and politics in dealing with cases of examination misconduct. This could be one of the reasons why students engaged in examination misconduct despite the existence of rules and regulations in Tanzanian universities. This is supported by the Theory of Planned Behaviours by Icek Ajzen (1991) which held that an individual's behavioural intention is shaped by subjective norms, attitude and perceived

behavioural control. It establishes the linkages between the implementation of university management strategies and students' engagement in examination misconduct.

Furthermore, the mean scores for students and lecturers about strict invigilation and the use of instructional manuals in the examination rooms to remind students about the examination rules and regulations before starting the examination were 3.14 and 3.78, respectively. This indicates that students viewed this strategy as moderately implemented; whereas lecturers viewed the strategy to be highly implemented. The discrepancy of definite findings could be explained by lecturers' discomfort in admitting weaknesses about the invigilation of examinations. Indeed, lower categorical scores from students were corroborated by the findings of Ambani et al. (2019). Specifically, Ambani et al. (2019) revealed that some strategies, including examination invigilation, were not effectively implemented in universities within Kenya. Besides, qualitative findings emanated from the interviews with DQAs and the CEOs from Universities A, B and C on the aspect of examination invigilation.

The CEO of University A made the following arguments:

To be realistic on the level of implementation of strategies; I can say that it is average. Some lecturers are committed to invigilating the examination but others are not committed. You may find them talking among themselves or on their cell phones during examination sessions and some of them are always in and out of the exam venues (*CEO A, personal communication, 5 November, 2022*).

Furthermore, the DQA of University B added:

Strict invigilation is also among the strategies but, in reality, our classes are so big that the number of invigilators does not match the class size although they try their best. I cannot blame them. They try to do their best to make sure that things go on in the right way. But some do the other way around. This kind of people will always find them in our institutions (*DQA B, personal communication, 9 November, 2022*)

Also, the CEO of University C opined that:

Surely, we have in place strategies but their implementation is another issue! We have in place good strategies including strict invigilation but the level of implementation I can say is "Average". This is because, for some people, its level is low and for some is high. So when you compute the level of implementation, it is generally average (*CEO C, personal communication, 8 November, 2022*).

The views from CEOs and the DQAs indicate that, in some situations, invigilators were strict during invigilation but some were not. This implies that the strategy was moderately implemented in universities because there are invigilators who are always committed and take examination invigilation as a serious activity. On the other hand, some invigilators are naturally not committed. Ineffective implementation of such strategies might explain the occurrence of prevalent forms of examination misconduct in Tanzanian universities. This state of affairs was supported by the

Theory of Planned Behaviours by Ajzen (1991) which held that a person's attitude toward a specific behaviour is the function of his/her beliefs, which referred to the perceived consequences of carrying out a specific action and his/her evaluation of each consequence. This might be attributed to inadequate invigilators, especially in examination venues with a large number of students, students tend to engage in examination cheating because they know where invigilators are and therefore, they could easily cheat without being noticed.

Moreover, the mean scores for students and lecturers on a strategy of checking students' illegal materials before being allowed into the examination rooms were 3.35 and 4.28, respectively. This indicates that students perceived the strategy as moderately implemented while lecturers viewed it as highly implemented. The discrepancy in categorical views between students and lecturers could be explained by different levels of awareness of illegal materials used by some students. Specifically, students are more likely to be aware of modern materials such as smartwatches and spy cameras that can be used during examinations than lecturers. This means that students might be more aware of modern materials used than lecturers. The findings in contrary to those of Sattler et al. (2017) who revealed that respective universities frequently implemented management strategies including restriction of unauthorized materials in the examination venues. This implies that checking for students' illegal materials is a difficult task due to the complexity of such materials because of the advancement in technology. The study crosschecked the extent to which university management strategies for combating examination misconduct were implemented specifically checking for students' illegal materials before ushering them in examination venues across universities. Data are summarized in Table 2.

Table 2*Checking for Students' Illegal Materials Before Entering the Examination Rooms*

University Identity	VL		L		M		H		VH	
	F	%	F	%	F	%	F	%	F	%
A	6	8.1	11	14.9	25	33.8	16	21.6	16	21.6
B	5	7	10	14.1	23	32.4	11	15.5	22	31
C	5	6.9	10	13.9	21	29.2	19	26.4	17	23.6
D	19	25	10	13.2	22	28.9	5	6.6	20	26.3
E	3	4.3	2	2.9	39	55.7	7	10	19	27.1

Source: Field data (2023)

Key: F=Frequency, percentage=Percentage, VL=very low, L=low, M=moderate, H=high, VH=very high.

Data in Table 2 indicates that almost in each university less than 50% of the respondents reported high-level implementation of checking illegal materials before ushering students in examination rooms as a strategy for curbing examination misconduct. Only from university C where 50% of respondents reported a high implementation of the strategy. Generally, in all universities, the implementation of the strategy was not high. This implies that checking for students' illegal

materials before ushering them into the examination venues was not highly implemented across universities in Tanzania. .

Furthermore, the researcher conducted interviews with the CEOs and the DQAs. The following were their views.

The DQA of University D said:

In this university normally students are checked if they carry unpermitted materials before allowing them into the examination venues. However, sometimes because of the big number of students, it becomes difficult for invigilators to adequately check for illegal materials. So the invigilators do what works best (*DQA D, personal communication, 16 November, 2022*).

Moreover, the CEO of University A had this to say:

At our university, students are supposed to be checked before entering the examination rooms, but its implementation depends very much on the invigilators' commitment and the number of students in the examination room. So I can say that its implementation is generally average because sometimes the students are checked but in some situations, they hurry them into the examination rooms (*CEO A, personal communication, 5 November, 2022*).

Furthermore, the CEO of University B commented:

Yes! For us here, invigilators try their best to ensure that students are checked before allowing them into the examination rooms. But, nowadays students are tricky; they have advanced ways of escaping and entering the examination rooms with unauthorized materials, especially using the current technologies which include smartwatches. Some invigilators are not aware of such materials (*CEO B, personal communication, 9 November, 2022*).

The views from the CEOs and the DQAs indicate that checking for students' unpermitted materials before entering the examination venues was done in some venues and situations due to the number of students and time limit. This implies that checking for students' illegal materials was moderately implemented in Tanzanian universities. This means that some students entered the examination venues with unauthorized materials, as they were not adequately checked before entering the examination rooms. The findings were in agreement with the findings of the study by Ambani et al. (2019) which revealed that some strategies including examination invigilation and checking of students before allowing them to enter the examination venues were not effectively implemented. This implies that, due to opportunities, some students tended to enter examination venues with illegal materials. The findings were further supported by the theory of Planned Behaviours by Icek Ajzen (1991) which proposed that subjective norms, attitude and perceived behavioural control shaped an individual's behaviour. This means that the use of unauthorized materials during examinations in universities was due to inadequate frisking of students' illegal materials before

ushering them into the examination venues. It might be attributed to a large number of students in the examination rooms and /or invigilators' laxity in checking students' illegal materials before allowing them into the examination venues. However, the responses from the CEOs and the DQAs were contrary to those of students and lecturers' responses who suggested that checking for illegal materials was highly implemented in Tanzanian universities. This could be associated with factors such as variation in perceptions of what constitutes illegal materials and therefore, they responded differently to the phenomenon as well as varying levels of awareness of procedures for inspecting illegal materials.

Considering the availability of CCTV cameras in the examination venues, students and lecturers showed mean scores of 1.44 and 1.19 respectively. This implies that the implementation of CCTV cameras was low indicating that CCTV cameras were not available in examination venues in Tanzanian universities. The findings were in agreement with the findings by Asiyai and Oghuvbu (2020) which revealed that strategies including the use of CCTV cameras in the examination rooms were lowly implemented in universities. Furthermore, during interviews with the DQAs and the CEOs, the following information was captured.

The CEO of University B said:

Indeed, we have no CCTV cameras in the examination rooms! This is a challenge! I think cameras would be of great help in curbing examination misconduct at our university. Cameras would help invigilators in accessing valid evidence of students found engaging in examination misconduct during the examination (*CEO B, personal communication, 9 November, 2022*).

Similarly, the CEO of University D reported:

To be sincere, this university has no CCTV cameras in the examination rooms. Yes, it is good to have cameras in the examination rooms as they can assist in reducing various forms of examination misconduct in universities. If there are cameras in car parks and supermarkets why not in the examination rooms? (*CEO D, personal communication, 16 November, 2022*).

Moreover, the DQA of University A had this to say: *For us here, CCTV cameras are not available in the examination rooms! However, with the advancement of science and technology, even ways of cheating are advancing. Therefore, there is a need to have cameras in examination venues (CEO A, personal communication, 5 November, 2022).*

The views from DQAs and CEOs indicate that there are no CCTV cameras in the examination rooms. The views were in line with the responses given by students and lecturers in Table 1 that, the availability of CCTV cameras in the examination venues was low. The implication is that CCTV cameras were not used in examination venues in Tanzanian universities, notwithstanding that it has been proposed as one of the most effective strategies if implemented. This could mean

that the few responses of students and lecturers that showed mean scores of 1.44 and 1.19 respectively might have seen them in other offices rather than in the examination rooms.

Generally, the availability of various strategies for combating examination misconduct in Tanzanian universities is the first step in addressing the problem. However, having strategies is one thing and their implementation is another thing. Universities have strategies but if they are not effectively implemented, they cannot bring the expected outcome. The effectiveness of strategies depended on the extent to which such strategies are implemented. From the findings, it is clear that strategies were moderately implemented. The implication is that Tanzanian universities had not been able to address the issue of examination misconduct effectively. It is reasoned that, for universities to succeed in addressing the issue of examination misconduct, transformation in their manner of implementation is imperative. The researchers were also interested in testing the hypothesis to find out if there was a significant relationship between the levels of implementation of university management strategies and the prevalence of various forms of examination misconduct in Tanzanian universities. Data are summarized in Table 3 and Table 4.

1. Null Hypothesis

There is no significant relationship between the level of implementation of university management strategies and the occurrence of forms of examination misconduct. Before testing the hypothesis, the researchers tested for normality using Shapiro Wilk Test to determine the appropriate test to be used for testing the hypothesis. The test indicated the p-value of 0.01, which was less than the significance level of 0.05. This justified that data was not normally distributed and therefore, a non-parametric test was adopted. Data are summarized in Tables 3 and 4.

Table 3

Statistical Test Result for Lecturers

		Average frequency	The average level of implementation
Spearman's rho	Average occurrence of forms of misconduct	1.000	-0.480**
	Correlation Coefficient		0.01
	Sig. (2-tailed)		
	N	68	68
	The average level of implementation	-0.480**	1.000
	Correlation Coefficient	0.01	
	Sig. (2-tailed)		
	N	68	68

Source: Field data (2023).

Data in Table 3 showed that there was a high negative correlation between the level of implementation of university management strategies and the occurrence of forms of examination misconduct manifested by a coefficient of -0.480 which implied that, an increase in the level of implementation of university management strategies would lead to decrease of forms of examination misconduct and vice versa (Abu- Bader, 2021). The p-value of 0.01 was less than 0.05 significant level; hence, the Null hypothesis is rejected in favour of the alternative hypothesis that, there was a significant relationship between the level of implementation of university management strategies and the frequency of forms of examination misconduct. This concurred with the Theory of Planned Behaviour (TPB) developed by Icek Ajzen in 1991 which established the linkage between gaps in the implementation of university management strategies and students' engagement in examination misconduct. To triangulate the information, the same statistical test was done for students' responses. Data are summarized in Table 4.

Table 4.*Statistical Test Results for Students***Correlations**

			Average forms of misconduct	The average level of implementation
Spearman's rho	Average occurrence of forms misconduct	Correlation Coefficient	1.000	-0.167**
		Sig. (2-tailed)		.001
		N	363	363
	The average level of implementation	Correlation Coefficient	-0.167**	1.000
Sig. (2-tailed)		.001		
		N	363	363

Source: Field data (2023).

Data in Table 4 indicates that there was a high negative relationship between the level of implementation and occurrence of forms of examination misconduct proven by a coefficient of -0.167 which implies that, an increase in the level of implementation of university management strategies would lead to a decrease in forms of examination misconduct and vice versa (Abu-Bader, 2021). The p-value of 0.01 was less than 0.05 significant level. Hence, the Null hypothesis was rejected in favour of the alternative hypothesis that; there was a significant relationship between the level of implementation of university management strategies and the occurrence of forms of examination misconduct. These findings were in line with the lecturers' responses. This implies that there is a relationship between the degree of implementation of management strategies and the occurrence of forms of examination misconduct. Based on the findings of this study, most

university management strategies for combating examination misconduct were moderately implemented in Tanzanian universities. It was further established that there is a relationship between the level of implementation of university management strategies and the occurrence of various forms of examination misconduct in Tanzanian universities. This implies that when the strategies are effectively implemented, they are likely to limit the occurrence of various forms of examination misconduct in Tanzanian universities and elsewhere and vice versa.

CONCLUSIONS

Based on the findings of this study, it is concluded that university management strategies for combating examination misconduct were not effectively implemented in Tanzanian universities. Thus, if the implementation of university management strategies will not be reinforced the occurrence of various forms of examination misconduct will persist in Tanzanian universities. This, in turn, will compromise the aspiration of HEIs of providing quality education which will lead to graduates with prerequisite skills, knowledge and competencies.

RECOMMENDATIONS

Based on the conclusions, the study recommends that universities in Tanzania and elsewhere should collaborate with quality assurance bodies such as TCU to review and/or formulate academic integrity policies that will specify and uphold universities' ethical principles and values as well as practices of appropriate examination conduct for handling policy violations to realize quality examinations. Furthermore, universities in Tanzania should consider using formative strategies. This includes emphasis on soft skills such as human values, moral education, and the creation of academic integrity culture to produce individuals with moral values.

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