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Leadership for ethical conduct of Senior Secondary School Certificate Examination (SSCE) in Nigeria and the challenge of 'Miracle Examination Centres'

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# Leadership for ethical conduct of Senior Secondary School Certificate Examination (SSCE) in Nigeria and the challenge of 'Miracle Examination Centres'

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## ABSTRACT

The importance placed on passing Senior Secondary School Certificate Examinations (SSCE) in Nigeria has led to the emergence of 'Miracle Examination Centres' (MECs). MECs are schools where candidates get undeserving excellent SSCE results through institutionally enabled malpractice. This undermines the Nigerian education sector and its leadership. But well-researched empirical evidence on MECs in Nigeria is scarce. Through a reconnaissance technique (recce), we provide new evidence on MECs' activities, including their nature and patronage, while providing informed remedial pointers that can be harnessed by the education sector leadership. Interviews were conducted with 97 persons, comprising community members, teachers, and school owners across 16 communities in four study sites (Abuja, Anambra, Edo, and Kogi), and data were supported by observations. Elicited data were thematically analysed. Findings show that MECs were more interested in rents (informal and undue fees) by compromising SSCE standards and less interested in academic training. Community members were aware of the activities of MECs and could readily identify or discuss them. We uncovered the adopted processes in facilitating this kind of malpractice. A feasible strategy to address MECs and similar examination fraud syndicates across countries is for the education sector leadership to strategically focus on the demand and supply sides.

## KEYWORDS

Corruption; examination malpractice; Miracle Examination Centres; WAEC; NECO; SSCE

## Introduction

Academic corruption manifests in several forms, of which compromising examination ethics is one. This is described as examination malpractice, and it exists in several forms, such as stealing answers to examination questions from co-examination candidates or

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from text materials, inflating examination scores of candidates, or generally abusing the set standards for examination (Agwu et al., 2022c; Boateng, 2019). A coordinated system of examination malpractice has long dominated final secondary/high school external examinations conducted by the West African Examination Council (WAEC) and National Examination Council (NECO). It involves a network of school actors that include students, teachers, parents, school administration, communities, and officials of the ministries of education and examination bodies. They collude to compromise examination standards set by WAEC and NECO and ensure that candidates undeservedly emerge with good grades (Okoye & Onwuzuruoha, 2020; Zakka, 2014). Such schools where these networks of actors hold sway are commonly referred to in local parlance as 'Miracle Examination Centres' (MECs) or Special Centres. MECs compromise the certification of secondary school completion (Senior Secondary Certificate Examination – SSCE), which is crucially required to transit into tertiary education, to get a job, and to seek political offices. Curbing the spread of MECs and taming their activities has been a goal for the education-sector leadership in Nigeria (Adedigba, 2018; Onyedinefu, 2019), and this paper presents informed guidance on how it can be done.

Systematic reviews on MECs confirm that they are widespread and damaging to education in Nigeria and are a problem to education policymakers (Agwu et al., 2020; Agwu et al., 2022c). Since MECs, like most forms of institutional corruption, are an open secret – an activity done in hiding but known to all (García, 2019), it has been quite difficult to publish the actual number of MECs in Nigeria. However, there are suggestions that schools whose WAEC and NECO results are cancelled and sometimes blacklisted could be MECs (Duru, 2020). Incidentally, the examination bodies do not have a comprehensive account of schools that have been blacklisted. What is available are a few instances of cancelled centres and results due to examination malpractice. For instance, 39 secondary schools were blacklisted in both Benue and Delta states in 2020 (Duru, 2020; Neme, 2020), and over 200,000 WAEC results were withheld in 2017 due to institutionalised malpractices across secondary schools (Agwu et al., 2020).

It is important to state that examination cheating is not peculiar to Nigeria, as a study in the United Kingdom documents how teachers and schools compromise academic grading systems by issuing multiple and unique examinations to students to minimise chances of failure (Ingram et al., 2018). In Egypt, teachers use grades to compensate students that pay them for private tutorship (Ille & Peacey, 2019). Alleyne and Thompson (2019) document cases of academic dishonesty that are supported by academic staff of various institutions happening in Ukraine, Botswana, United States, and China. But what is obtainable in Nigeria is through collusion, involving various examination stakeholders, including community members, to facilitate the sustenance of an institutional arrangement that allows students to cheat and undeservedly pass external examinations.

Continual and unchecked existence of MECs extensively contributes to damaging Nigeria's educational system, causing education donors to lose interest, hardworking students to be discouraged, promoting a rent culture in the academia, and affecting the credibility of examination certificates issued in Nigeria. Authorities in the education sector are responding to stem the growth of MECs, yet they are proliferating, as each examination year in Nigeria usually sees an increase in the conduct of examination malpractices enabled by so-called academic institutions (Aworinde, 2015b; Okoye & Onwuzuruoha, 2020). Thus, there is need to think differently and more strategically,

especially in these times where countries are interdependent on one another for human resources produced by various educational systems.

Previous studies of ours extensively covered the drivers and survival of MECs, as well as a general outlook at solutions, but without underscoring crucial and targeted education-sector leadership roles in addressing the issue (Agwu et al., 2020; 2022b, 2022c, 2022d). Importantly, a qualitative study on the subject was emphatic about the inclusion of the voices of more grassroots actors like parents, students, teachers, and school administrators on this subject (Agwu et al., 2022d). The current study takes these gaps into consideration, thereby contributing to a body of emerging qualitative enquiries into MECs in Nigeria. Therefore, we answered the following research questions: (a) What is the nature of MECs? (b) How are services of MECs demanded and supplied? (c) What steps can be taken by the education sector leadership to address MECs' operations and spread?

## Conceptual framework

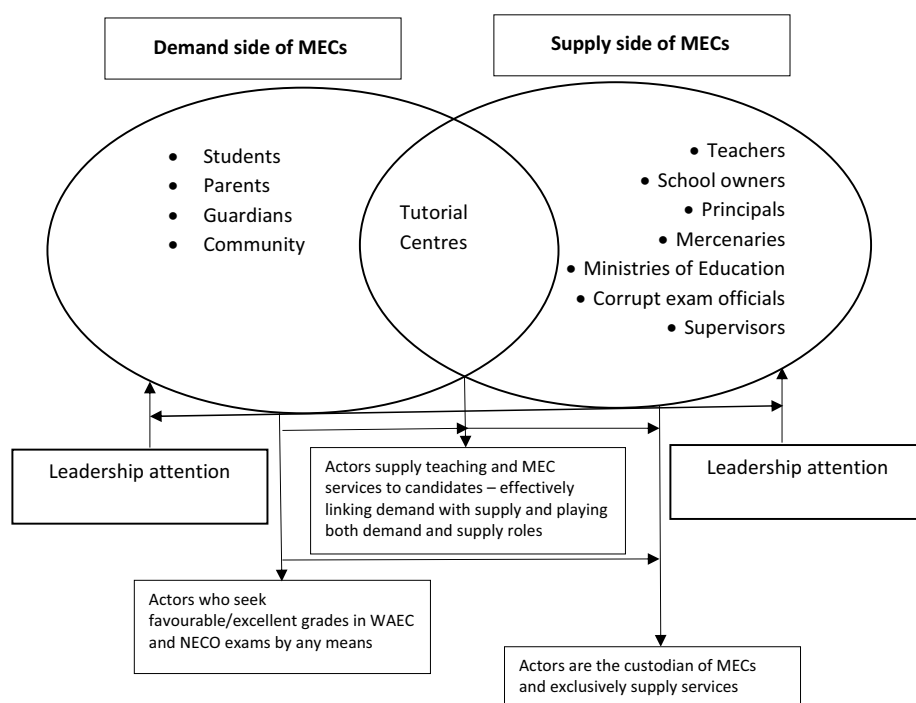
In providing evidence about the dynamics of MECs and the focus for the leadership of the education sector in matching these dynamics, we adopted the demand and supply analysis of corruption (Dixit, 2015, 2016). Gauthier et al. (2021) also adopted the demand-supply sides framework of corruption in explaining the prevalence of bribery in taxation and public procurement. According to Gauthier and co-authors, anticorruption strategies will make sense when they are strategic to either block supplies or frustrate demands. The idea of utilising a demand and supply lens in addressing the problem of MECs is to achieve an understanding of the interactions that sustain MECs and to develop more strategic approaches. Questions pertaining to 'who' patronises and 'who' sells the services of MECs, and interestingly, 'who' mediates this interaction, are asked. Hence, we present the three 'whos' that leadership must focus on if the corruption of MECs can be effectively addressed.

We believe that cutting through these three 'whos' will suffice for an informed anticorruption approach against MECs. Figure 1 outlines those that comprise the three 'whos'. We place priority on demand and supply, which when addressed will render the intermediary irrelevant. At the intermediary, we found tutorial centres, and they are largely unregistered in Nigeria. They provide extra academic training to SSCE candidates. However, a qualitative study showed how tutorial centres facilitate the registration of recruited candidates in MECs that offer them financial kickbacks and can guarantee their recruited candidates excellent results (Agwu et al., 2022b).

## Methodology

### *Study sites and design*

The study was conducted across four locations in Nigeria which Agwu et al. (2020) identified as having prevalence of MECs. They are Abuja, Anambra, Edo, and Kogi. The National Bureau of Statistics (NBS, 2019) estimates that Abuja has 62 public and 202 private senior secondary schools; Anambra has 257 public and 556 private senior secondary schools; Edo has 257 public and 312 private senior secondary schools; while Kogi has 274 public and 287 private senior secondary schools. The NBS reported that all senior



**Figure 1.** Conceptual framework showing the demand and supply sides of MECs and focus for leadership intervention (Adapted from Agwu et al., 2022b).

secondary schools captured in its database are government-approved, which suggests that they are likely approved centres for SSCE. That means across the selected study areas, there should be no less than 2000 centres for SSCE, of which MECs form an unidentified fraction.

MECs are public secrets, implying that the public knows about their existence, but their operations are barely discussed in public. An approach that can be used in breaking into this public secret is the reconnaissance technique. It is akin to an espionage activity that focuses on massive and rapid gathering of information to provide insights into the dynamics of difficult terrains and public secrets. Since the 1960s, scholars have argued that the technique makes sense as a strategy to break into communities and secure understanding of societal behaviours that are complex and nuanced (Lloyd, 1965; Nix & Seerley, 1971). The technique is found to be necessary in exploring areas that have never been researched or are under-researched. As part of reconnaissance, researchers are expected to hold interviews with people under informal settings to mitigate fear.

The fear of identity exposure among research participants is common when researching in difficult terrains that require exposing public secrets, and reconnaissance helps to mitigate that (Wiles et al., 2008). Thus, the respondents are not compelled to comply with the formalities that characterise well-structured interviews, such as recording voices. However, the researcher, in creating such an environment, must ensure adherence to ethics, especially full disclosure of the study, and ensure the promise of anonymity and confidentiality (Nix & Seerley, 1971; Wiles et al., 2008).

The engineering fields make extensive usage of reconnaissance to explore new sites for construction, and to understand environmental dynamics and other factors that could constrain or enhance their work (Jones et al., 2015). Reconnaissance is gaining traction in the humanities, social and health sciences, as it has been used to understand the dynamics of group behaviours (Lecomte, 2000), health seeking behaviours of people (Thamrin et al., 1997), and to gather real-time information in response to public health emergencies (Baker et al., 2022). The common underlying usage of reconnaissance is to ethically create an informal setting for information gathering that allows respondents to be expressive. Thus, we chose this technique to explore the public secrecy of operations and activities of MECs and to produce informed guidance for the education sector leadership to take actions against MECs. Interestingly, reconnaissance provides an avenue to build trust and confidence, which can be leveraged in future to conduct more well-structured interviews under ethical conditions.

### ***Sampling***

The sampling procedures and reporting were guided by the Consolidated Criteria for Reporting Qualitative Research (COREQ) (Tong et al., 2007). With the study areas already identified, the next stage was to identify MECs in the locations, as well as schools known for anti-malpractice during SSCE. To achieve this, we relied extensively on purposive and snowball sampling. With purposive sampling, we identified one contact person in each of the locations that is familiar with the operations of MECs and has a connection with the senior secondary school system. The contact persons were present or past teachers in the locations. They worked closely with the researchers after they were briefed about the research and its aims. Afterwards, the contact persons were given one month to informally ask around for known MECs in their respective locations, as well as ethically compliant schools which we refer to as ‘rule-following schools’. For the sake of full disclosure, the contact persons were also expected to build rapport with gatekeepers of the communities where the schools were identified, preparing them to receive the researchers when they would eventually visit the study sites.

The contact persons were able to confirm some MECs they already knew, as well as identify new ones. Since MECs are not hidden from the public, it was easy to identify them through referrals from community residents and gatekeepers (local leaders in the community). With the provided mentions by our contact persons, we made a list of the identified MECs and rule-following schools, and their locations, before visiting the study sites as researchers. At the locations, we first received approval from the education authorities, after they had considered the research protocol and ethical clearance. However, for confidentiality reasons, the identified schools were not disclosed to the authorities.

We visited the communities hosting the schools identified by our contact persons, and we were taken to the gatekeepers for official introduction. The gatekeepers referred us to some members of the communities who they felt had knowledge about MECs, and through these people, we were referred to others, who could be friends, relatives, or neighbours. Our conversation guide contained awareness about MECs, utilisation of MECs, knowledge about operations, and what solutions can work. Conversations started with a short introduction of who we are, and the broad aim of the study, which is to improve the education sector by strengthening examination integrity. Thereafter, oral consent was sought, as written

**Table 1.** Schema of respondents.

Category	Abuja	Anambra	Edo	Kogi	Total
Community members	7	6	6	6	25
Teachers in MECs	4	5	4	4	17
Teachers in rule-following schools	5	4	5	5	19
Owners of MECs	5	5	5	3	18
Owners of rule-following schools	4	5	5	4	18
Total	–	–	–	–	<b>97</b>

consent would introduce some level of formality that could be a discouragement. So, since the participants knew that their voices were not being recorded, and the researchers were just taking notes, they felt comfortable to talk.

As we anticipated, we found community members who had patronised such centres either firsthand or facilitated the registration of someone close to them. With good rapport, many respondents were forthright in attending to our enquiries. They were able to distinguish between MECs and rule-following schools. Repeated mentions of the schools by several community members, either as MEC or rule-following, provided us with the advantage of triangulation which is needed to strengthen reconnaissance evidence (Pido, 2014). In all, we covered four communities in each of the four study locations, identifying four MECs and four rule-following schools, which total 16 MECs and 16 rule-following schools across Abuja, Anambra, Edo, and Kogi. Also, we interviewed 97 people across the four study locations, as shown in Table 1.

### **Data collection**

Data were collected in 2020, in the months after Covid-19 restrictions were relaxed, and schools reopened. However, the researchers complied with prescribed non-pharmaceutical measures against Covid-19. They ensured mastery over the research questions and guide before the fieldwork. In all, we sought to determine: (a) schools where students can pass SSCE examinations without following due process; (b) schools that do not give room for malpractices; (c) characteristics of the rule-following schools; (d) characteristics of the rule-breaking schools or MECs; (e) how schools solicit and assist students to pass examinations without following due process; and (f) what solutions can be offered by the education sector leadership.

Four of the researchers that conducted the fieldwork had a uniform protocol that guided their activities while on the field. Some contents of the protocol included (a) maintain a friendly disposition towards the respondents; (b) do not rely on a single story – ask repeatedly until the mention of a school hits three; (c) take notes and observe extensively; (d) the exercise should be held during the day for security reasons. We collected data through unstructured interviews with respondents and observations. Observations helped to validate some of the responses. For instance, we observed the infrastructure in schools, as well as population of students.

### **Data analysis**

All notes (including observations) were typed and screened for correctness and grammar and uploaded to a central SharePoint for both storage and easy retrieval.



The researchers who visited the field organised the contents of their notes under the research questions, which is in line with the deductive method of coding. Hence, we had the following themes: (a) characteristics and operations of MECs; (b) demands and supplies of MECs; and (c) strategies to be adopted by the education sector leadership to address MECs. After completing individual coding, we harmonised spreadsheets into a single document, which all researchers reviewed. Concerns from the vetting process were addressed in a meeting, and then the revised spreadsheet was given to two independent peers for further inspection. These processes of achieving rigour in the analysis of qualitative data are referred to as observer triangulation and peer debriefing (Padgett, 2008).

### ***Ethics***

The research and its methodology were approved by the ethical review board of our institution with number NHREC/05/01/2008B-FWA00002458-1RB00002323. The identities of all schools and respondents are entirely masked as directed by the ethical board. Hence, we made no mention of any of the schools, and we did not present sociodemographic details that could give indications of the identities of the respondents. Also, to further manage ethical concerns, the introductory processes at the field had respect for full disclosure. Oral informed consent was sought to proceed with the interviews. The gatekeepers and respondents knew of the objectives of the research and only consented based on the promise of confidentiality and anonymity, which we strictly adhered to. Successful requests were made to the gatekeepers to ensure that the researchers safely conducted the research.

## **Results**

### ***Characteristics and operations of MECs***

Identified MECs we visited recognised the corrupt education system, but often blamed deteriorating values as the reason they operate. They report that parents and students no longer believe in examination integrity, as they only care about passing SSCE through any means. Private schools were said to be more involved as MECs.

Private schools are so well involved in this Miracle Centre issue. The reason is that everyone wants to pass the SSCE in one sitting, and they believe the children have to be supported by the school. In fact, when parents around look for schools for their children to write WAEC or NECO, the question they always ask is – do students pass in that school? You will hardly hear questions about if we teach or learn so well. And so, schools now know that if they do not bend (compromise) they will lose candidates and money. Of course, private schools need the money to survive. (MEC owner, Abuja)

So, it was common to find MECs putting out strong convictions to market the potency of their services, focusing more on recruiting students to sit SSCE in their schools. We observed that they had more students in the examination classes than the rest of the classes. Appearing more like an ‘inverted triangle’.

It is easy to know MEC. Visit those schools and you will see that they have no or poor infrastructure, yet they will register over 100 students for SSCE, while you will see 10 or 20 in other classes [. . .]. (Teacher in rule-following school, Edo)

So, one expects more registrants for just the SSCE, as opposed to actual schooling. This was described by a parent:

I want my child to be intelligent that was why I took her to a good school. I withdrew her to secure her SSCE in this other school because I am sure the school will help her to make excellent result. (Community member, Kogi)

An indication of a weak educational system in MECs is that most of them were infra-structurally deficient and poorly staffed, as we observed.

[. . .] To the MECs, that big hall is more important than any other infrastructure in the school, because they just need money from those that will register for the examinations and they care less about learning. (Teacher in rule-following school, Edo)

Rents are obtained by inflating registration prices and arbitrary charges during the examinations, usually to bribe supervisors and increase personal income. The prices for registration in MECs for WAEC and NECO ranged from N40,000 – N65,000 (approx. £81.23 – £131.99) for each of the examinations (WAEC and NECO) in the MECs, whereas the actual fee for both exams should not be above N29,000 (Approx. £58.89), as stipulated on the websites of the examination bodies.

We probed the mechanisms deployed by the MECs to ensure that their candidates pass exceptionally. A teacher in one of the MECs said:

... you see in this place; we know the examiner that will come here. We know what to do so he or she will calm down (bribery). We arrange everything, including the scores for Continuous Assessment [. . .]. (MEC Teacher, Anambra)

Another explained with a pointer to political connectedness of some owners of MECs. He narrates:

... I wrote Mathematics on Sunday in that school, after a strict examiner dealt with us on the actual day of the exam. On that day, the owner of the school told us to go, that he will communicate with us. It did not take too long, we got a text message on our phones that we should come on Sunday to re-write. I made "A". The man that owns the school is very powerful. (Community member, Edo)

Also, we were told that services offered by the MECs differ. For instance, a candidate can choose to either sit the exam in person or by proxy (where examination candidates never show up at the venue). A community member told our researcher in Anambra:

How do you want it? Their prices differ. They have the one for special candidates who will not like to show up at the examination venue, and it is usually expensive. (Community member, Anambra)

A strategy of MECs is to be in a hard-to-reach location. Even though we found some MECs around city centres, we recorded more community members referring us to interiors. Participants said MECs prefer to be in hard-to-reach locations so they could stay away from proper monitoring. Also, MECs rely heavily on compromising supervisors, so that they could allow answers to be provided to students either through photocopied answers on papers, blatantly writing them on boards, or by sending through on electronic gadgets.

At my centre, if we do not see the questions early enough, the school administrators will take the supervisor to an office, where he or she will be fed, and good money will be given to him.

While they are doing that, one of the teachers will write the answers on the board for us to copy, or they will give us photocopied papers with the answers and we write. Of course, the supervisor will allow us enough time. So, I think that the schools try to lobby to get supervisors that will be willing to assist them. (Community member, Edo)

### ***Demand and supply sides of MECs***

On the demand side, in the communities we visited, we found that a considerable number of members were aware of the services offered by MECs, and they as well provided demand.

This school that is next to my shop is the sure bet for what you are looking for. All these apprentices in my shop got their results from there [. . .] If you have the money, go and pay them, and you are certain of getting a 'clean' result. ('clean' means free of poor grades) (Community member, Edo)

The services of MECs are replete in the study locations, and there is popular demand. Besides radio and print advertisements, successful candidates from MECs equally serve as ambassadors and stimulate demand. Parents are also complicit.

I still feel hurt each time I remember the huge amount of money I paid in her former school. She did not make the result, so I registered her here (pointing at a close-by MEC), and she cleared her papers. (Community member, Kogi)

Within the supply networks of MECs, teachers, examination supervisors, principals, corrupt staff within the examination bodies and ministries of education, and school owners were mentioned. Supervisors were said to usually turn a blind eye once they have been compromised.

Where I wrote, the supervisors will be taken out of the hall to be entertained [. . .] That school gets the question papers before the time of the exam. The owner of the school is well connected. (Community member, Abuja)

MECs can supply services to their clients because they secure rents that are huge enough to pay bribes. As shown in the previous theme, with a lot of MECs' registrants that pay over 200% of the actual registration fee, MECs truly secure outrageous sums in rents to game the system.

Let us say you have more than 100 candidates willing to pay four times the approved examination fees. What do you think will be the outcome? There will be enough money to pay bribes, hire mercenaries, do all sorts of things to pass the students, yet with so much more to keep as profit. (MEC Teacher, Abuja)

Furthermore, we discovered the roles played by tutorial centres as intermediaries.

What I know is that if you go to any tutorial centre around here, they will take you to where you will register. They always know the best schools that will help you pass WAEC. Just register with them, and you will be good to go. (Community member, Edo)

Tutorial centres receive kickbacks from the MECs for the candidates they refer, and they also make money from the fees the candidates pay for both extra lessons and registering for the examinations with the MECs. In Edo, we discovered that the tutorial centres now operate like schools, as opposed to providing only extra lessons after normal school period, which had always been the practice.

### ***Remedial strategies the education sector leadership should consider in addressing MECs***

We sought ideas that would benefit the education sector leadership in tackling MECs. First, we found evidence that rule-following schools are discomforted by the activities of MECs, as they obviously corrupt the examination space, and furthermore poach their students when they get to the class for sitting SSCE (SS 3). There is evidence of willingness to take action.

We lose students to the MECs when they are approaching SS 3. It is painful after training these students from JSS 1 to SS 2 (5 classes), and they leave at SS 3 (the final and approved class to sit SSCE). We should do something about it, maybe have them sign some bond that will prevent them from leaving when it is time to write the exam or form an association to speak against MECs. (Owner of rule-following school, Anambra)

We learnt about the Continuous Assessment Score (CAS) and its role in encouraging examination integrity. Schools are expected to submit CAS of their SSCE candidates for two years (i.e. SS 1 and SS 2) preceding SS 3, which will account for a percentage of the overall SSCE assessment. This should make migration difficult because CAS cannot be transferred without the knowledge of the authorities. There is an implication that MECs forge CAS for students that register with them during SS 3. According to some respondents from the rule-following schools, they believe an enforcement of non-transferable CAS policy will prevent unwarranted migration of students.

I think CAS can help control migration if well implemented. I am aware that WAEC is trying to implement the CAS. If the examination bodies are backed by the government to implement CAS it will help solve this issue of students leaving when they are about to enter SS 3. That way, they would not be able to migrate to MECs. If they want to write their examinations in MECs, then they should go there and learn from JSS 1. (Owner of rule-following school, Edo)

Available evidence shows that MECs do not exist outside the knowledge of supervisors and the rule-following schools. Holding dialogues with these groups of persons will be necessary in identifying some schools that should be red-flagged and monitored by supervisors that have exhibited some level of integrity.

We know these schools, and we should stop pretending. Supervisors lobby to be posted there and our students go there. We all know these things. There are many of us that will be willing to sit with the Ministries of Education and WAEC and NECO to expose these schools with evidence. But are they willing to have such a conversation? This is why I feel that the authorities are complicit. (Teacher in rule-following school, Abuja)

Also, participants said that it is important to consider an efficient oversight of supervisors, and ensure that they do not exercise discretion in choosing the schools they supervise. Examiners or supervisors are recommended by the ministries of education and engaged by the examination bodies. They are teachers, mostly from public schools. We had information that the recruitment process is not entirely sincere, which is why corrupt elements find their way into being recruited as supervisors.

We need integrity markers for the selection of supervisors. Maybe we choose those that are very religious, that we know have a history of not tolerating fraud. (Owner of rule-following school, Abuja)

In addition, there were accounts of examination bodies and education ministries pursuing efficient monitoring of schools and routine examination of facilities presented by schools during accreditation. Also, monitoring their teaching and learning activities, and the amount they charge for the examination, were emphasised. This is because MECs are reported to be less concerned about the quality of academic engagement and charge outrageous sums to sustain their devious activities. Two respondents orate:

The owner of that school does not live in this town; he barely checks on the school to know their activities. He operates it like a farmyard where he harvests during WAEC and NECO examinations. Imagine if there is something like routine supervision of these centres. Definitely, they will know that those schools are not as functional as they are during WAEC and NECO. (Community member, Kogi)

Do you think if we have a system where everyone pays the actual fees as stipulated on the websites of WAEC and NECO, we will be in this mess? Imagine that if these students pay that N13,000 [£26] or N15,000 [£30], nobody will see the money to use in cheating this way. [Community member, Edo]

## Discussion

Weeding out MECs must be a core educational leadership agenda, especially as SSCE certification issued by WAEC or NECO is globally accepted as a proof of successful completion of secondary school education in Nigeria. It is commendable that some examination bodies and some ministries of education are showing an interest in addressing the menace by cancelling and withholding results, suspending erring staff, delisting examination centres, etc (Aworinde, 2015a; Duru, 2020; Neme, 2020). But as argued in Nzeadibe et al. (2022), these approaches have not proven very successful, as MECs continue to thrive. The current study presents practicable pointers for the education sector leadership to tackle MECs. They are drawn from the experiences of key stakeholders to frustrate demand and supply sides of MECs (Dixit, 2015, 2016). This same demand-supply focused approach is proven to be successful in addressing public procurement corruption (Gauthier et al., 2021).

An important finding for us in weakening the supply side of MECs is that there are actors that are uncomfortable with the activities of MECs and who have expressed willingness to work with the authorities to deal with the operations of MECs. We identified these groups of actors as the rule-following schools, and some notable community members who wish for an improved education sector and for the rule-of-law to be applied. Yet evidence still shows that these actors have been abandoned to their grievances, as the authorities are yet to express the willingness to work with them to identify MECs as a first step towards applying further investigations and sanctions. In some other studies, evidence points to the practicability of sustaining anticorruption strategies by building a coalition of wilful actors that are in some ways affected by corruption and will somewhat benefit or derive some sense of fulfilment when the corruption issue is addressed (Agwu et al., 2022a; Khan et al., 2019; Onwujekwe et al., 2019).

Further, on the supply side, we found that the features of MECs are largely conspicuous, and they could be identified by constant monitoring of facilities of schools and their teaching and learning contents. For instance, the distribution of students in MECs (which is skewed in such a way that students in senior classes are overly represented) suggests that their clients are there just for SSCE certificates, instead of undergoing a process of academic training. Participants in the study pointed to the need for constant monitoring of schools, by paying attention to the quality of academic engagements going on in the schools and the disproportionate number of students that are registered for SSCE by schools. Simply, schools should register candidates in direct proportion to the numbers they have in lower classes, and if otherwise, such numbers should be reasonably justified. The impression being held by most of the participants is that cracking down on MECs by the leadership should begin by beaming the light on those schools that meet known characteristics of MECs, which seem to have always been public knowledge.

On weakening the demand side, mitigating unwarranted migration of students through the CAS policy was emphasised. A previous qualitative study with educational policy stakeholders confirmed the workability of the CAS policy in frustrating the activities of MECs (Agwu et al., 2022b). Teachers and school owners in this current study affirmed that the CAS policy if well implemented would indeed curb MECs. The idea is to ensure non-transferability of Assessment Scores for SS 1 and SS 2, which are calculated at the school level and demanded by the examination bodies in SS 3. This means that migration must be done together with moving the calculated Assessment Scores to a new school. So, rather than focusing on questioning forged Assessment Scores allotted to MECs candidates, a better approach would be to enforce the existing CAS policy to the latter, to discourage inter-school migration, especially in SS 3. In addition to the CAS policy, a participant discussed introducing bonds that must be signed once a student approaches the examination class (SS 3). Nevertheless, it is important for the authority to devise measures to enforce this policy in ways that set out well considered acceptable conditions for inter-school migration, such as in the case of the relocation of caregivers, etc.

Another important finding in taming supply was to focus on enforcing strict compliance to the approved fees for the examinations. We infer that this can be feasibly done by digitally centralising payments or issuing sanctions against schools that charge fees that are higher than the approved fees. This is needed, as our evidence reveals that charging fees of 150–200% of the approved fees provide rents that are used to game the system. Baum et al. (2018) argued that the expense of private schools could significantly imply quality education. Here, our findings show that this is not always the case, as the high price of private schools, especially in cases of examination fees, could mean securing more money to execute corruption.

In addition, the examination bodies and ministries of education could work together to set out integrity indicators for the selection of supervisors. Supervisors were mentioned as playing central roles in allowing MECs to supply services unhindered. As our evidence suggests, the education sector leadership must now work concertedly to get trusted supervisors to do the job of supervision. With supervisors that are unwilling to be bribed and willing to report corrupt practices that will be sanctioned, it is possible that schools can be careful. Also, in line with past systematic reviews, the leadership could work primarily with students, and then school managements, to set integrity markers that

can be used to identify teachers that are of decent character and intolerant of examination malpractice (Agwu et al., 2020, 2022a, 2022c).

Overall, cheating in examinations negatively impacts the integrity of examination regulators, the credibility of awarding institutions, and proceed to reduce the quality of human resources available to a country and even beyond. We recommend stronger partnerships among the components of the education sector leadership, which include the examination bodies and the ministries of education. What we have done in the current study is to identify and discuss informed pointers that can address the operations of MECs from the demand or supply side. This is a first and important step that can be leveraged to co-design policy and programmatic interventions against MECs. Meanwhile, corrupt actors are known to evolve against anticorruption strategies. Therefore, it will be necessary for researchers to monitor such evolution and rapidly provide evidence of new trends adopted by MECs.

Our study focused on three states in Nigeria and the nation's capital (Abuja). Although a systematic review (Agwu et al., 2020) on the subject indicated that MECs exist across Nigeria, their prevalence was more pronounced in literature across the selected study locations. Yet this may not portray a general picture of MECs in Nigeria. The dynamics and characteristics of the MECs may differ across states in the country, but this does not rule out the fact that they operate in a syndicate fashion, interested in rents rather than quality teaching and learning, and undermine the education landscape in Nigeria, including its leadership. We have provided an exploratory start, targeted at leadership-led solutions sourced from the nature of the operations of MECs and the experiences of a broad base of stakeholders that are aware of the activities of MECs. Going forward, these presented insights can be leveraged to model robust interventions for implementation against MECs in Nigeria, and other countries such as Ghana, Gambia, Sierra-Leone, etc., where WAEC and similar examinations are taken.

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## Ethics

This study was approved by the Ethical Review Board of the University of Nigeria with identification reference – NHREC/05/01/2008B-FWA00002458-1RB00002323.

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