

The importance of diverse economic contexts in African student success

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Abstract

Existing research into student success may not be useful to develop interventions which can improve outcomes for engineering students in Africa, since they fail to account for diversity in local contexts. In our larger project we are using Grounded Theory Methodology (GTM) to investigate student success in African engineering education, interpreted through the experiences of educators. This phase of the project aims to understand better what is meant by “student success” in African engineering education, and to articulate the contexts which impact student success. We recruited participants who had at least five years’ experience in engineering education in African institutions. We conducted a focus group with three participants, and individual semi-structured interviews with four participants. The seven participants are from six African countries and include lecturers as well as academic leaders. Our findings in this paper focus on national and institutional economic contexts. National policies governing funding of university studies, as well as historic funding strategies, contribute significantly to contextual diversity. Institutional contexts include the physical and staffing resources available, whether the institution is private or state-funded, and the socio-economic status distribution of the student body. Based on our analysis of the data, we propose a model in which economic factors are understood as emerging from interactions between national, institutional and personal context.

Keywords: Student success, Grounded Theory, Economic context

1. Introduction

Student success has been a key concern in higher education research for decades, and encompasses a range of diverse conceptualisations, including academic outcomes; retention, persistence and graduation; acquisition of knowledge and skills; and the holistic development and thriving of the student (Inglis & Matemba, 2021; Gesun et al., 2021). It is understood as the outcome of multi-dimensional interactions between individual students, classroom teaching, institutions, and the broader societal context. Different researchers have focused on one or more of these factors, and Tinto (2014) argues that effective interventions must be sensitive to the interplay between them. For instance, strategies that achieve positive results on residential campuses may fail for students who must commute daily, balance work responsibilities, or lack familial support (Tinto, 2014, p.9).

The classroom experience as well as the curriculum remain foundational to student success (Tinto, 2014; Boles & Whelan, 2017; Mashiyane et al., 2023). However, the literature also points to factors outside of both classroom and curriculum. These include financial hardship, under-resourced secondary schooling, lack of career guidance, large class sizes, and psycho-social challenges (Ahmed et al., 2015; Mogashana, 2015; van der Merwe & Maharaj, 2018). Additionally, mental health is increasingly recognised as an issue that affects student success (Masuku & Sebiya, 2025; Asghar et al., 2024). In contrast to studies in developed economies, where these challenges may affect a minority of students, at African universities they affect the majority of students. Further, many universities in the region lack the institutional resources to adequately address these needs (Bolu et al., 2020).

The importance of social, historical, and institutional conditions in shaping student success has been clearly demonstrated for engineering students in Africa. Mlambo (2022), for example, shows how apartheid-era legacies continue to influence the experience of Black African women in engineering in South Africa, making the educational journey one of both academic and socio-political navigation. Reinforcing the importance of context, Zakharov et al. (2016) argue that what is effective in one university or country may be inappropriate in another. In our earlier work with African engineering educators across three countries (Inglis & Matemba, 2021) participants identified institutional resourcing and students’ socio-educational backgrounds as critical elements that impact student success. These factors are in turn shaped by country-specific realities, such as

national funding models, historical patterns of exclusion and inequality, and national accreditation requirements (Minalla, 2021; Naidoo & McKay, 2018; Mohamedbhai, 2015). As a result, understanding student success in African engineering education requires sensitivity to both national policies and local institutional dynamics.

This work is situated within a larger project that uses a Grounded Theory Methodology (GTM) (Bryant & Charmaz, 2019) to formulate theories for engineering student success based on the perspectives and experiences of African engineering educators. In GTM the analysis is grounded in the words of the participants, and theory is developed by interaction of the researchers with the data. Trustworthiness and rigour are developed through repeated cycles of interviews and analysis until theoretical saturation is reached. The long-term aim of the project is to develop contextually appropriate interventions to improve student outcomes.

The iterative and evolving process of theory generation is illustrated in Figure 1. In this phase of the project (Phase 1) we begin to better articulate the nuanced contexts surrounding student success in African engineering education. The development of contextual sensitivity is a recommended first stage in GTM (Nunes et al., 2010). It is necessary to understand the contextual details which interact with student success so that we can capture all relevant information when we collect data in Phase 2.

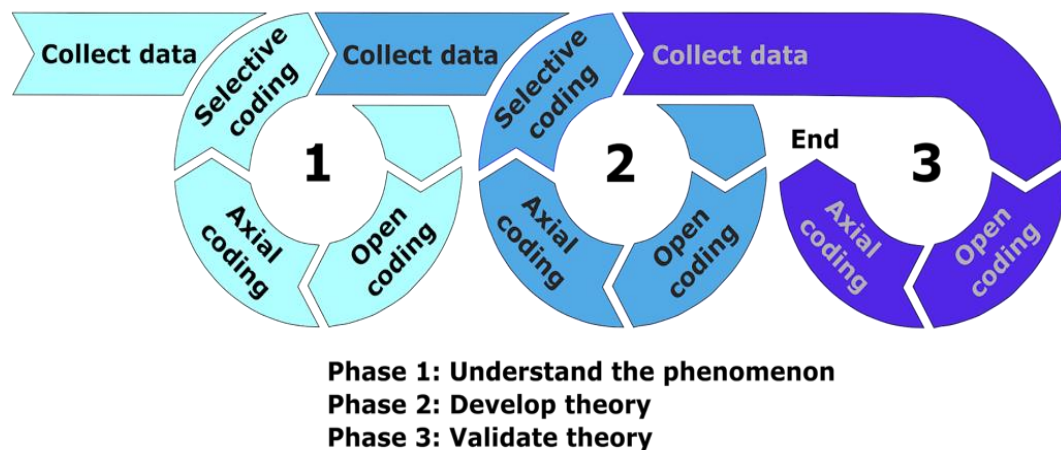


Figure 1: Sequential cyclical Grounded Theory process, as reported in (Inglis, Mogashana & Matemba, 2023)

In this paper we focus our attention on the economic dimensions of national and institutional contexts. We ask the research question: “In what ways do economic contexts interact with student success in African engineering institutions?”

2. Methods

2.1. Participants

We recruited participants who had at least five years’ experience in engineering education in African institutions. For this first phase of the study, participants were recruited via personal connections. We aimed for a heterogeneous sample in terms of academic rank, country and type of institution. Our seven initial participants are from six African countries and include lecturers and academic leaders, listed in Table 1.

Ethical clearance was obtained from the University of Pretoria, and each participant gave informed consent to participate in the interview and for the interview to be recorded. The participants confirmed that they were in compliance with their own university’s ethical requirements.

Table 1: Details of participants

Participant	Country	Role	Mode of interview
P1	Sudan	Academic Leader	Individual
P2	Nigeria	Academic Leader	Individual
P3	Zimbabwe	Academic Leader	Individual
P4	Nigeria	Lecturer	Individual
FG1	South Africa	Lecturer	Focus Group
FG2	Tanzania	Lecturer	Focus Group
FG3	Uganda	Lecturer	Focus Group

2.2. Data gathering

We conducted a focus group with three participants, and individual semi-structured interviews with four participants. The interviews and focus groups were conducted using Zoom, and the recordings were then transcribed by an independent contractor or by the researchers.

We asked participants to introduce themselves, including their academic history and the ways in which they interact with students. We invited participants to give an overview of their institution, giving information about the engineering faculty in the larger university, the size of the university, and the diversities in the student population. We then asked them for their definition of student success, and the factors and interventions that have an impact on student outcomes. We deliberately did not provide a definition of student success, as the goal of the project is to develop this from the participants' responses.

2.3. Data Analysis

The data was coded according to Grounded Theory Methodology (Glaser & Strauss, 1967; Clark, 2019), beginning with open codes, using the words of the participants as much as possible, and proceeding to develop axial codes or categories (Stough & Lee, 2021). In this first phase of our larger GTM study, we were looking for contextual detail that will affect student success.

The three researchers completed open coding separately, and then collaboratively used mind maps to visualise the interconnections between the data (Inglis, Mogashana & Matemba, 2023). The contextual factors developing from the data were categorized into national, institutional, and personal contexts. In this paper, we have chosen to focus on the economic dimension of the national and institutional contexts.

National contexts include government policies, funding of university studies, as well as historic funding strategies. Institutional contexts include the physical and staffing resources available, whether the institution is private or state-funded, and the socio-economic status distribution of the student body.

3. Results

3.1. National economic contexts

The data illustrates the impact of national contexts on the environments in which students study engineering. The most significant way in which national economic policies impact student success is through the provision of funding for students. Participant 1 says of Sudan, "We don't have this kind of support unfortunately."

In a discussion of funding in Zimbabwe, Participant 3 discusses the reduction of funding sources over the years. One source of funding for engineering students is industry scholarships: "when I was a student almost everyone had a scholarship, at the moment you will be lucky to get five to ten percent of the students being on scholarships". Those students who did not have scholarships relied on government funding:

The government provided 100% grant, and their grant meant that they would pay your fees. Your parents would not contribute anything. [The government] would pay your fees, on the assumption that when you finish, you're working for the country, and then you can slowly give back. (P3)

As resources began dwindling in the early 1990s, the government funding was split, with half of the funding being offered as a grant, and half as a loan that must be paid back after graduation. The funding situation has now deteriorated further: "Government was not able to pay any loan, government was not able to pay any grant, so everything was expected to come from the parents from 2000."

In Nigeria, the government has historically sponsored tuition for students at public universities. According to Participant 2: "the government is responsible for almost 90 percent of the tuition. So the parents are just responsible for less [than] 10 percent." Participant 4 notes that this does not include "accommodation and maybe some manuals and things like that", and this may still impose a burden on lower-income students:

... your subsistence fee lies with you, daily feeding is by you. For example, if your family is only on one dollar per day bill or income, and you have about two, three, or four of you in a higher institution at the same time, it affects the amount of fee that you have for your subsistence. (P2)

In 2023 Nigerian government funding for tuition was removed, requiring students to cover the cost of tuition: All federal universities ... the tuition was free, so you only needed to pay for I think maybe the accommodation ... But when the new government came in ... and because of the economic situation of the country, tuition has been introduced. (P4)

Participant 2 notes that, "the government is trying to introduce scholarships to assist most of the indigent or what you call financially disadvantaged students", but Participant 4 is concerned, "we would know how that works when this new session [begins] because it's all new, it's entirely new."

The economic and political stability of countries also impacts higher education. For example, Participant 1, talking about the ability of Sudanese students and staff to interact with the international engineering community comments that, "Sudan is under sanction for more than 20 years and this has really affected everything in Sudan, especially universities." Participant 1 also notes that "in Sudan the instability is a little bit high, economic instability and even political instability." In Nigeria, Participant 4, discussing lecturer motivation, says, "economically it is a bit tough, and the government's not really been so fair. We had some couple of strikes that didn't yield anything."

Some other economic issues are similar for all countries. For example, Participant 1 mentions the cost of access to online teaching in the Covid era: "sometimes they have no way to download the lecture because it is a little bit expensive to download that lecture and they cannot attend that lecture because of this."

3.2. Institutional economic contexts

The economic contexts of individual institutions are explored indirectly through data on staffing resources, the physical spaces and equipment at the university, the availability of accommodation, the institutional support systems provided to students, and the range of socio-economic status of the students at the institution. Key data from the eight institutions in the study are presented in Table 2.

3.2.1. Staffing resources

Staffing resources contribute to the institutional context, and are shaped by the interaction between national funding and institutional resources. A lack of financial resources lends itself to staff shortages. For example, in Tanzania, FG2 reported that the staff-to-student ratio in most universities is insufficient for effective teaching. This experience is shared across multiple contexts, and it is often indicated by staff members serving various roles at the same time. In Uganda, FG3 discusses working as a lecturer, supporting the learning management system, assisting with library resources, being a student mentor and being responsible for industrial training and coordination. In Sudan, P1 indicated holding different work functions; in Nigeria, P4 shared their experience of holding multiple roles. The only two participants that did not report challenges

with staffing resources were FG1 from a medium old university in South Africa and P2 who is at a new private university in Nigeria.

Table 2: Institutional information

	Country	Size ^a	Age ^b	Public / Private	Urban / Rural	International profile ^c
P1	Sudan	Large	Old	Public	Urban	Low
P2	Nigeria	Medium	Established	Public	Urban	Low
		Small	New	Private	Rural	Medium
P3	Zimbabwe	Medium	Old	Public	Urban	Medium
P4	Nigeria	Large	Old	Public	Urban	Medium
FG1	South Africa	Medium	Old	Public	Urban	High
FG2	Tanzania	Large	Old	Public	Urban	Medium
FG3	Uganda	Small	Established	Public	Rural	Low

^a Large: more than 30 000 students; Medium 10 000 to 30 000; Small: fewer than 10 000 students
^b New: less than 10 years; Established: Less than 50 years; Old: Greater than 50 years
^c International profile: Based on THE World university rankings (Times Higher Education, 2025).
 Unranked universities are indicated as having a “low” international profile.

Staff qualifications vary across contexts. Among the participants in this study, five hold PhDs, with three already at the professorship level. Two participants had not yet obtained their PhDs at the time the study was conducted. However, the participants' qualifications do not necessarily reflect the overall qualification levels within their respective institutions, as many reported generally low qualification levels among staff. Participant 3 describes the situation at their institution in Zimbabwe:

The first issue is that only 25% of our academics at the university are trained up to the PhD level—just 25%. The remaining 75% hold only master's degrees. That is a problem. If you are in academia, you will understand what I mean. This means we have people who are still in the process of obtaining their qualifications training the future engineers. (P3)

Gender diversity also contributes significantly to the institutional contexts, particularly in engineering. At a large public university in Nigeria, Participant 4 highlights that the percentage of female academics remains below 10%: “Of the entire faculty, with a staff establishment of approximately 100, you will find only five to ten females. Unfortunately... Yes, so it is still mostly dominated by males.” Similarly, P3, speaking about an institution in Zimbabwe, noted that many of the academic staff are still male. The male-dominated nature of engineering education in these institutions often results in female staff members taking on more nurturing and pastoral roles. Three of our female participants reported that they have increasingly assumed “emotional labour” roles for their students.

Participant 2 describes efforts to support female academic staff financially at their medium-sized public university in Nigeria: “we deliberately included what is called a female monthly bonus ... because there are some needs that are peculiar to females, so we paid 10% more to the females.”

3.2.2. Physical resources

Physical resources for studying engineering are an important contextual factor, partially defined by Participant 4 as “the environment and the way the classroom is organised.” Participant 3, who is a lecturer at an old public university in Zimbabwe, noted that their institution had outdated laboratory equipment:

The equipment has not been replenished. You'll be amazed, I mean if you were here, if I take you to the workshops and show you some of the machine tools that are still being used for training, these are the same machine tools that I used as a student. (P3)

There is also an issue of the laboratory resources not being expanded to accommodate the increasing number of students: “The numbers continue to increase year in, year out, but the infrastructure in terms of buildings,

in terms of equipment in the laboratories, in terms of staffing, expertise and so on, that is not matched" (P3). The issue of overcrowding is evidenced by an example:

At one point I was just passing through and the lecture room was so full that some students were actually sitting in the corridor, purporting to be attending a lecture in a lecture room, you understand what I mean? (P3)

Participant 3 concludes that the shortcomings in physical space as well as equipment "translates to ... a decline in the quality and decline in the standards."

In Tanzania at an old public university, FG2 says: "another challenge is on technology... access to technology".

Participant 4 comments on the impact of unreliable power supply on learning:

For example, sometimes we have issues with power ... We've been experiencing that for a long time in Nigeria. So the students kind of feel that their learning experience is being interrupted. If maybe you are projecting a particular slide or materials and [students] are ... working on it and suddenly they start load shedding or power outage. (P4)

3.2.3. Institutional support structures

At points in their journeys, many students will require support of different kinds: academic support, support with coping strategies such as time management and self-regulation, emotional support and financial support. The data in this study show that the provision of this support differs between institutions. We will discuss formal institutional support mechanisms, support provided by a lecturer who acts as a mentor or advisor, and informal support through student organisations.

FG1, working at an old university in South Africa, reports on a range of formal institutional support structures, noting that "our faculty is blessed with [...] dedicated psychologists, [...] a team of 4 psychologists" and also has "academic development / extended curricular programmes that then look into, you know, academic interventions". In addition to these structures which address academic and emotional needs directly, there is also support from a coach for "psycho-social challenges, which involved [...] other things – life issues, ... the challenges that students bring, whether it's from their background, family background, financial, health, well-being."

FG3, at a small university in Uganda, implies that there are some institutional support structures, saying "then you have to direct them to the right office" but is not specific about what support is provided. At many universities it seems that the formal institutional support is concentrated into the role of a particular individual, for example "registrar" (FG3) or "Dean of Students" (P3).

In the case of Sudan, P1 reports that their institution has organised financial support from a private company for students who meet specific academic performance standards. The institution is stepping in to fill a need since there is no government funding available.

Six of the seven institutions covered in this data expect academic staff members to fill the role of mentor or advisor:

We also have what we call mentorship in the faculty, and every lecturer is given a number of students in the first year when they enrol, maybe about 8 students. So, as the years go by, you accumulate a number of students under your mentorship. (FG3)

Participant 3 reports that "on average each lecturer is given about 10, 15 students to mentor throughout their student life at the University", while Participant 1 says, "I have 40 students from the first-year, I'm responsible for them. [...] I will be the same advisor for them until they graduate." Participant 2, discussing their experience at a public university in Nigeria, comments that "At year one, you only have one person looking after the whole of the class, and that's the level advisor" while from year three, "there is normally a ratio between five and one so that you can have that personal interaction. The standard is 1 to 35 or 1 to 30 in the first year."

The kind of support provided by the advisors includes guidance for academic problems, “these are the do's and these are the don'ts” (P3), ““Have you been able to come to class?”, “What are your challenges?”” (FG3); financial issues, including problems with tuition as well as with daily living, ““Do you have your basics?”” (FG3); and social problems. We note that some academic staff will invest more time and effort into the advising role than others, and this is confirmed by one author who remembers that, although she was assigned an advisor in her undergraduate studies, she seldom saw him.

Students also access support through informal and extra-curricular structures. In some cases this might be a local chapter of a larger organisation, for example “a student chapter for Industrial Engineering and Operation Management Society – this is an international society” (P1) or a local student body “this is a student association that’s helping to build leadership skills and other skills way outside of the classroom area” (FG3). These societies foster student interactions within and between universities, and students “work very hard in soft skills” (P1). P2 gives a vivid example of how informal societies assist students and contribute to “the democratisation of learning”:

Let's assume that I am a Muslim, I belong to the Muslim Students Society club, and let's assume that I know how to ride a bicycle, and I belong to the Bicycle Club ... so those clubs ... provide necessary support like tutorials ... ‘that same course that I've taken ... are you going to take it?’ (P2)

3.2.4. Accommodation

There is variation in accommodation provisions across different contexts, with a general sentiment that universities cannot accommodate all their students. In many cases, students must find their own accommodation, which may often be unaffordable. In South Africa, students who qualify for government funding receive an allowance for student accommodation both on and off-campus. In Nigeria the government subsidises only on-campus accommodation, leaving off-campus housing unsubsidised.

At a medium public university in Nigeria, Participant 2 reported that accommodation is insufficient for the entire student population. They indicated that the university can house only 30 to 50% of students, while the remaining 50% live off-campus. Some commute daily, while non-local students must find private, unsubsidized accommodation near campus:

Normally, we have accommodation providers very close to campus, so those who cannot be accommodated on campus are accommodated by those, but they pay. But those hostels on campus are still subsidised by the government, but those ones by the private providers are not subsidised by the government... (P2)

The lack of sufficient university accommodation in different contexts also raises student safety concerns. In Sudan, for example, Participant 1 reported that diploma-level students are not allowed to stay on campus due to limited housing availability. As a result, many must travel long distances home each day. Additionally, female students face further safety challenges:

If a class is too late, some females, they cannot attend it. They said because they cannot find any transportation to go back to their home at night. It will not be safe for them, so they just dismiss that course. (P1)

3.2.5. Student socio-economic status

Participants have reported that their student bodies are distributed across a wide range of socioeconomic status (SES) and the different types of financial support that is available. P4, who is in a large public university in Nigeria, claims “we have ... students from low-income, middle-income and high-income families.” The issue of diversity in students’ socioeconomic status was also reported by P2 at a medium public university in rural Nigeria, stating that the student population falls mainly between low to medium-income earners, and that “The percentage of children from the high-income earning family is very low.” P2 estimated the ratio of high income, middle income and low income at their institution to be about “10:50:40”.

Financial difficulties were reported to be a contributor to student success. P1, who is a lecturer at an urban public university in Sudan, explained that when students cannot pay university registration fees, they are unable to attend classes for a significant period, or are unable to do their examinations, this results in low performance on their academic records. P1 further notes that students from rural areas with low economic background may be disadvantaged “because they don't have money to come to the capital of Sudan, to stay in the capital, or even to pay for the tuition fees ... there are some fees to pay even at the public university and [there are] many students who cannot pay.”

P4 reports on having a group of students that struggle financially, but adds that those students can acquire support through industry scholarships, “because they could apply for scholarships if they obtain some certain grades. We have scholarships being sponsored by industries that students could apply for.” (P4)

FG2, who lectures in a large urban public institution in Tanzania, where government loans exist to cover student loans and bursary, also reports on similar challenges that a number of students from low economic backgrounds face. FG2 recalled their experience as a registrar where students failed to pay registration fees, saying “sometimes they are late to register because of failing to fulfil some mandatory fees – they have to pay some fees for registration.”

Apart from school fees, some students lack money for basic necessities like food and shelter that affect their academic performance:

Or some lack the basics in terms of, “I didn't have lunch”, “I don't have money to buy my basics like soap,” “I can't pay rent.” So, that area, that social economic area as well really affects it and success. That's why we find ourselves having to support. (FG3)

Data also shows that despite a common account of students that have low socioeconomic status, there are some exceptions where students are relatively advantaged compared to the rest of the student population at the institution. FG3, who is in a rural university in Uganda, gives an example of an undergraduate student at their institution “who actually drives – so he even has to bring his fellow classmates to class.” FG3 explains that this is “way out of the bracket for the biggest group here at undergrad level, to be able to drive – you have a car, you go home, you find everything ready for you.”

Family backgrounds determine the extent to which the cultural capital which students bring to their studies is aligned to university or professional expectations (Setlogelo, 2008). FG1 compares their children's position with their own position at a similar age:

So, for them, you know... they already have parents who are engineers. You know? ... So their starting point, it's different. They already have engineering conversations with us. They already are introduced to a whole lot of games and stuff that they play, they go to a private school. (FG1)

According to FG1 the alignment of cultural capital depends on “types of schools attended, educational level of parents (first generation, etc), exposure to resources.”

FG2, at an old public university in Tanzania, commented on the impact of students' academic backgrounds on their understanding of the engineering profession and on how they learn:

those who are coming from the urban area, have that privilege of being ready, or at least they know what they are going for ... Most of them do know what they are going for, unlike those who are coming from rural areas. (FG2)

This is a challenge especially since their university does not have a structured way to introduce students to the engineering courses. “So, we are not preparing them, and this leads to another challenge, which is, it now leads the students towards studying to pass exams only and not acquiring knowledge and skills.” While most urban students' cultural capital is aligned with institutional expectations, those who come from poorly resourced rural schools do not have aligned cultural capital.

4. Developing a model for economic context

In this paper we have investigated the ways that economic contexts interact with student success in African engineering institutions. In reporting our results, we disaggregated the data between national and institutional contexts, and identified the economic aspects of each.

In this section we begin to develop a theory based on our interaction with this data. Key economic factors originate in one or more of three contexts: the national, the institutional, and the personal. The personal context captures those aspects which are unique for each individual student. Our model groups factors thematically across contexts, to enable a richer engagement with the data. This is presented in Figure 2.

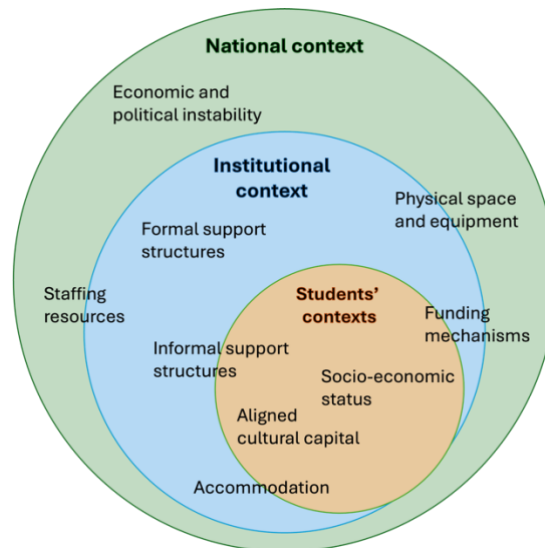


Figure 2: Economic factors originate in one or more domains

As an example, accommodation factors originate in both institutional and student contexts, since some students are accommodated in university residences, while others make use of private accommodation. Formal support structures originate within the institution, in contrast to informal support, which is a partnership between the institution and students.

The contribution of this model is illustrated by considering funding mechanisms. At the national level, governments determine funding policies and budgets, which may include student grants and scholarships. Similarly, institutions may make funding opportunities available to students based on various criteria. Students' diverse economic circumstances likewise contribute to the availability of funding. Without considering the interacting contributions of all three contexts, aspects of student experience are missing from our understanding.

By understanding the complex sources of various factors, the model allows us to interrogate the influence of actions from different domains on student outcomes. For example, the decline in government funding for tuition, reported in Nigeria and Zimbabwe, affects the maintenance of physical resources and the recruitment and retention of qualified lecturers. Loss of funding also impacts the pool of students who can afford to go to university, limiting opportunities and reducing diversity.

In contrast, the provision of institutional support mechanisms for students changes their ability to meaningfully access university, mitigating the challenges which students face if their cultural capital is not aligned with the institution.

This model demonstrates the complexities of context. Similar institutions exposed to different national contexts will result in different experiences for their students. Equally, resilient institutions can promote

student success despite a challenging national context. Understanding economic contexts in this way influences the framing of the larger study on student success.

5. Conclusions and Implications

Across the contexts that we surveyed, we can see that African universities deal with similar problems, particularly related to limited resources and differential preparedness of the students entering the university. However, national policies, mandates and funding have a significant impact on the conditions for success.

When we asked participants about factors that impact student success, an emphasis on economic contexts stood out in their responses. In this study we have separated national and institutional economic contexts, and, based on interview data, we have identified core components of economic context at each level.

At a national level, the provision of funding was the most important factor identified. This includes an understanding of the historical trajectory of tuition support from the government, and how this has affected institutions and students. The national political and economic environment is also significant, with political and economic instability and factors such as economic sanctions disrupting studies.

Considering institutional economic contexts, the availability of sufficient well-qualified academic staff members was identified, along with the physical environment, including classrooms, laboratory facilities and equipment, and accommodation. Support mechanisms can promote student resilience and agency, and range from formal support from dedicated staff to mentoring by academic staff to informal support via clubs or societies. The diversity of the student population in terms of socioeconomic status, as well as the ability of students to afford their studies have a significant impact on student outcomes.

We have proposed a model which identifies key economic contextual factors as originating across national, institutional and personal contexts. The model has not yet been validated. As we proceed with iterative data collection and coding according to Grounded Theory Methodology, the model will be modified and extended until theoretical saturation is reached.

This model provides a contextual basis to inform our research on the phenomenon of engineering student success in Africa. Developing contextually-responsive theories about student success will impact engineering education by providing a basis for designing and implementing effective interventions in classrooms, institutions and educational policy.

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