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**UNIVERSITY EXIT EXAM IN HIGHER EDUCATION INSTITUTIONS IN ETHIOPIA:
QUALITY ENHANCEMENT AND ASSURANCE MECHANISM OR PROTOCOL FOR
STUDENTS' GRADUATION**

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ABSTRACT

The main objective of this was to assess the successes and challenges of preparing and administering the university exit exam at DiguUniversity and the Ministry of Education (MoE) in Ethiopia. In so doing both primary and secondary data were collected using survey and document analysis; and analyzed using both descriptive(percentages mean and standard deviation) and inferential statistics(one-way ANOVA, Pearson r). The findings revealed that there were successes and challenges in the preparation and administration of university exit exams at DIGU and MOE levels. The mean score of the CGPA of the students was a minimum of 3.1 which was close to distinction whereas, the mean scores of the university exit exam results of 20 departments were satisfactory and unsatisfactory (between 51 to 58). The descriptive analysis depicted that 19(42.2%) and 18(40%) achieved satisfactory and good mean scores in the national university exit exam. Also, the one-way ANOVA analysis indicated that there was significant mean scores difference among the six colleges and one campus ($p < .05$: $F(7, 1661) = 71.9, p = .000$). However, the Post hook Analysis using Tukey showed that there was significant mean scores difference between and among some colleges and the campus. The analysis of the relationship between the graduated students' CGPA and university national exit exam results found was medium positive correlation($r=.37, n=1669, p<.0005$), and the CGPA might not explain the students' exit exam results as the coefficient of determination was 14%. Therefore, it can be concluded that MoE introduced the university exit exam without adequate preparation and administered it as a protocol for students' graduation. It is recommended that the university exit exam be introduced to enhance and ensure the quality of the graduates from both public and private HEIs should have ample preparation beginning with revising the curriculum of each program that comprises learning outcomes/competencies, appropriate teaching, learning, and assessment methods to develop the right competencies.

KEYWORDS: - University exit exam, higher education institutions, quality assurance, quality enhancement.

1. INTRODUCTION

Enhancing and ensuring quality higher education is still a headache for universities in developing countries like Ethiopia. In addition to managing the internal quality of each university, the Ministry of Education (MoE) has introduced and administered a university exit exam since July 2023 to maintain the quality of graduates from all undergraduate programs in both public and private universities in Ethiopia and increase their employability. The main rationale for introducing the university exit exam in both public and private higher education institutions in Ethiopia, according to the Ministry of Education (MoE, 2023) is that it is one of the 'sectoral reform initiatives' planned to improve the standard of the teaching and learning process. It is also a requirement to graduate from a university or college. As a result, the exit exam is "designed to determine whether students developed the expected level of competencies in their chosen field of study and are ready to enter the workforce or pursue further education" (MOE, 2023). However, the author argues that the university exit exam neither improves the teaching and learning process nor helps to assure the quality of the graduates' preparation in terms of generic and soft skills for the competitive labor market in their respective disciplines rather it seems a requirement for graduation in its present status. The author further argues that both MoE and each university should manage not only the outputs, the graduates through the university exit exam but also the inputs, especially the quality of the curricula, the competencies of the academics, students' quality learning and achievement, the administrative services quality, and the processes, particularly the quality of the teaching and learning process.

One of the public universities in Ethiopia is Digu University whose graduates took and have been taking the university exit exam administered and being administered by MoE since July 2023. This paper aims to examine the successes and challenges of preparing for and administering the exit exam at Digu University and MoE.

2. LITERATURE REVIEW

The framework of the study

Different theories and models guide the internal quality enactment and assurance and procedures in HEIs. This study is guided by system theory as suggested by Kumar (2021) that academic institutions should be seen as a system. The parts of the system of the institutions should interact to achieve the goal of the institutions, to enhance and assure the quality of higher education.

The three main models that enlighten the internal quality of the HEIs are goal and specification, process, and absence of problem (Netshifhefhe, Nobongoza & Maphosa, 2016). The goal and specification model informs HEIs that programs have their own goals and their qualities are determined by the achievement of the goals set (Cheng, 2011). The process model appraises that the process in the HEIs determines the quality of the output, the graduates, and the extent to which the planned goals are achieved. The absence of problems model advances that 'if there are no glitches, difficulties, defects, weaknesses and dysfunctions' in the HEIs, there is high education quality in the institutions (Netshifhefhe, Nobongoza & Maphosa, 2016). Nevertheless, the author argues that the premise and conclusion of this model are not logical as no higher education institution is free from any problem, and the absence of problems in the institution is not a guarantee for the presence of

high-quality education. Consequently, this study adopts the traditional input-process-output model of managing quality in HEIs.

The study is also guided by the most common model of quality education: input, process, and output, what Asharaf and Ahmed (2022) called the 5Q model of quality education: quality input, quality process, and quality output. The quality input consists of quality teaching staff, quality student intake, and quality administrative services having quality management. Among these, the quality of the academics is the key factor that determines the learning outcomes and students' performance. The quality input is the quality of the programs and their delivery. The quality output is the quality of education demonstrated by the quality of the graduates of the HEIs (Asharaf & Ahmed, 2022). However, the author argues that the 5Q model of quality education does not depict the quality inputs, quality processes, and quality outputs clearly and comprehensively. From the inputs stated in the model, quality teachers and quality staff are ambiguous as both can refer to academic staff. Rather, it should be stated as quality academics and quality supportive staff. Also, quality programs as quality input does not mean implementing effective course curricula. Rather, there should be quality teaching, quality learning, quality infrastructure, and quality services including ICT, and quality academic and administrative leadership and management that can build a culture of continuous self-organizational learning and improvement so that not only the gaps of quality in the process but also the inputs and the outputs will be filled, improved and transformed.

Practice and gaps in quality enhancement and assurance in HEI

The theory and models of quality assurance in HEIs tell us that both MoE and each university like Digu University should balance quality control/assurance of the graduates through university exit exams, managing the quality of the inputs and processes so that quality outputs, and graduates will be ensured. However, different policy documents and studies worldwide including in Ethiopia disclosed that there are challenges and gaps in managing quality in HEIs. For instance, in Vietnamese higher education, the internal quality assurance (IQA) of academic programs “built the fundamental infrastructure and used indirect instruments but did not frequently use the IQA results to continuously improve educational quality” (Pham, Nguyen, Pham & Ta, 2022, p.1). However, Sofyani, Saleh, and Abu Hasan (2023) found that ‘internal control and internal quality assurance implementations are positively associated with HEI quality. According to Martin (2018, p.285), “The most important factors for effective IQA were leadership support, stakeholder involvement, and scientifically sound data collection (both quantitative and qualitative)”. The IQA tools should balance academics and employability so that university graduates are prepared and specialized properly (Martin, 2018).

In the African context, Afolabi and Idowu (2020, p.274) described that “...quality management in Africa is currently low and in need of revitalization.... the problems of funding, ballooning student enrolment, insufficient lecturers and poor research facilities contributed to low-quality management regime in Africa's higher education” .In the context of HEIs in Nigeria, the debate among business owners and policymakers was “whether higher education institutions (HEIs) have failed to transform the younger generation by developing their competencies, skills, values and behaviors to enable them to be fit for the world of work” (Okolie, Igwe, Nwosu, Eneje & Mlanga, 2020, p.295). They questioned how the HEIs conceptualized generic skills and why they did not teach generic skills effectively. Okolie, Igwe, Nwosu, Eneje, and Mlanga (2020, p.295) found that “many of the HEIs do not facilitate the teaching of high-level generic skills in their programs. Some of the factors attributed to this include poor learning environment, lack of staff with industry experience, and over-dependence on theoretical content teaching”. On the contrary, Okolie, Nwosu, and Mlanga (2019, p.620) found that “with adequate teaching resources and competent teachers, graduate

employability skills (technical and soft), which the LM [labor market] demands from the HEIs, can be imparted to the students”.

In the Ethiopian context, one of the principles of the new education and training policy is to deliver quality and relevant education at all levels (FDRE, 2023). Regarding higher education in Ethiopia, the policy states that one of the assessment strategies to assure quality is to administer exit exam for all programs (FDRE, 2023). Also, in the most recent higher education proclamation, the HEIs are given the mandate to prepare and administer exit exam for their graduating students to ‘ensure quality education and its appropriateness’ (FDRE, 2019). In line with this proclamation, a university exit exam has been administered for law undergraduate students. Evaluating the law exit examination in Ethiopia, Seid, Mizane, Belay, Addiswork, Abduljebar, Yenehun, Endawek and Nurlign (n.d,p.2) identified that...graduates perceived that they are competent in their profession and the exit exam has contributed to their increased self-confidence”. They also found that:

there is high positive correlation between law exit exam results during 2013/14 academic year (or 2006 EC) and cumulative GPAs for students in Addis Ababa University ($r=.80$), Bahir Dar University ($r=.87$), Dire Dawa University ($r=.71$), Hawassa University ($r=.55$), University of Gondar ($r=.70$), and Wellega University ($r=.84$). (p.14)

The findings also revealed that there were problems with the exit exam and challenges with the teaching materials and students' preparation for the exit exam. The problems were that the exit exams did not have content validity they did not represent the core courses, the questions focused on memorization, the choices in the multiple choice questions were ambiguous and bulky, and enough time was not allotted for the exams. All these gaps imply that the purpose of the exit exam seems unclear, either to assess or evaluate the generic academic and employability skills of the graduates and assure their quality and competencies or as a protocol for students' graduation. Also, there were gaps in the test construction and items development mainly constructing good multiple-choice items having good distracters and answer keys, addressing validity (both face and content) and reliability of the items. With regards to the challenges of teaching materials, perceiving that the teaching materials are cooked and readymade materials to be given for academics, they were found substandard and outdated which did not help the students to prepare themselves for the exam adequately (Seid, Mizane, Belay, Addiswork, Abduljebar, Yenehun, Endawek & Nurlign, nd).

According to Adal and Kefale (2023), although the introduction and the importance of university exit exams for graduate students is supported by policy and practice as revealed in the literature, it was found that they were gaps in the preparation and administration of exit exam. Similarly, Eyob and Abreham's (2022) desk review showed that there are many significant exit exam though there are different concerns like as forcing the curriculum not to be flexible, problems with exam administration and management, and cheating. The author argues that quality university exit exam preparation is also a serious challenge. A study by Hunduma and Seyoum (2023, p.1) found that “students generally held negative perceptions of exit exams. It was evident that factors such as anxiety, stress, unknown contents of the exam, risk of exclusion, and resource constraints contributed to the undesirable perceptions”. All these imply that the purpose of the university exit exam was not properly communicated to the students before two or so years, if possible, immediately they joined a program so that they can have enough preparation time both academically and psychologically.

The problem

The main problems observed at the MoE level were the way one-size fit for all higher education institutions the university exit exam was introduced without checking the uniformity of the

curricula, without revising the curricula' learning objectives and learning outcomes, and without assessing the quality of the inputs the quality of the curriculum of each program, and the quality and competencies of the academics, and the actual teaching and learning process. The gaps were also observed in the quality of the learning competencies and blueprints developed and disseminated to the HEIs by MoE; the way complaints were responded to, the absence of proper, clear, and convincing communication for the students and stakeholders about the purpose of the exit exam; and the way the national exit exam prepared by MoE and administered by each university. In the February 2024 exit exam administered by MoE, there were also gaps observed in the registration, preparation, and administration though external supervisors were assigned from another university.

At Digu University, although almost the University community (the University management, academic leaders, academics, supportive staff, especially those that manage technical issues of ICT and digital libraries) exerted maximum efforts in the preparation and administration of exit exam since the previous academic year, there were successes and gaps in the document prepared for exit exam by MoE, and in preparing graduates of 2023 undergraduate students by their respective departments and colleges. When some academics and departments invested their time in providing and facilitating tutorials and prepared summaries of the core courses theme by theme precisely, some others did not do it in the expected quality. Most of the departments prepared and administered at least two model exams as scheduled, and the second model exam of each department was prepared based on the learning competencies and blueprints prepared by MoE, some departments and colleges were very reluctant to convince and unconvincing reasons in engaging in blueprint training that could contribute for quality item construction, preparing model exams, assessing and evaluating the item quality by conducting item analysis. Consequently, except for departments in the Health Sciences Campus, most of the departments in the main campus did not facilitate tutorials based on analyzing the items developed and administered for the second model exit exam though some departments were observed facilitating tutorials based on the needs of their students. Most of all, the main problem observed in preparing the students for the university exit exam was the students themselves were not cooperative perceiving that the exam might not be given and were struggling and confused through information from social media. Therefore, the main objective of this study was to examine if exit exam in HEIs in Ethiopia have been started to assure quality or enhance quality to be a protocol for students' graduation.

Basic research questions

What are the successes and challenges in the preparation and administration of the university exit exam at Digu and by MoE?

What does the cumulative grade point average (CGPA) and the national university exit exam achievements of 2023 graduate students look like by departments and colleges at Digu?

Are there any significant mean score differences among the departments and colleges in the second model exit exam and the university exit exam administered by MoE?

Is there a positive relationship between students' model exit exam 2 and their CGPA, and model exit exam 2 and a national exit exam, students' CGPA and national exit exam results?

Do the students' CGPA explain their students' national exit exam results?

3. RESEARCH DESIGN

Descriptive survey design was used in this study that utilized both quantitative and qualitative data (Cohen et al., 2007; Creswell, 2015). Both primary and secondary data sources were used. The primary data sources were department heads and associate academic deans. They were selected purposively as they were the main actors in the preparation and administration of exit exam at the university level. The secondary data were the students' CGPA and the university exit exam results of July 2023 graduates at Digu.

The main data collection method was document analysis in which students' CGPA and the national university exit exam results administered in July 2023 were collected from the University registrar. A questionnaire in the form of a Likert-type rating ranging from strongly agree to strongly disagree was developed and used to assess the successes and gaps in the preparation for and the administration of the exit exam at MoE and Digu University. From six colleges and one campus, out of six associate academic deans, three (50%) of them participated and returned the questionnaire. Of 45 department heads, 15(33.3%) of them participated in the survey and returned the questionnaire. In between the sub-scales, there are open-ended questions that give room for the participants to write their reflections that were not addressed by each sub-scale.

The quantitative data were analyzed using descriptive statistics including percentages, mean, standard deviation, one-way ANOVA, and Pearson r. Checked the homogeneity of various using the Levene test, it was found that the variance was heterogynous for the samples that were not equal. As suggested by Cribbie, Fiksenbaum, Keselman, and Wilcox (2012),the Welch test was checked and it was found significant that was used to control Type I error and power for heterogonous variance and and unequal sample size. Also, as suggested by Blanca-Mena, Alarcón-Postigo, Arnau, Bono Cabré, and Bendayan (2018), the ratio of the largest variance of the group by the smallest for both students' CGPA and national exit exam results was found 1.47 and 1.30 respectively, which was found in limit and could perform F-test with confidence. Also, the qualitative data from the open-ended questions were analyzed thematically and presented with the findings of the quantitative data.

Ethical issues were addressed professionally. In so doing, a pseudonym name was used to make the university study anonymous. Participation was volunteer and informed to withdraw whenever they intend to do so. Also, data were analyzed and reported anonymously and confidentially.

The main limitation of the study was the sample size was small for the survey conducted regarding the preparation and administration of university exit exam.

4. RESULTS

Among 18 participants who filled out the survey, 14(77.8%) and 4(22.2%) were males and females respectively. Regarding their qualification, 15(83.3%) were second-degree holders while 3(16.7%) were terminal degree holders. About their responsibility,3(16.7%) were associate academic deans and 15(83.3%) were department head. Half of the participants, 9(50%0 have 6-10 years; an equal number of the participants, 4(22.2%) have 1-5 and 11-15 years; and 1(5.6%) has more than 15 years of experience in teaching and academic leadership.

The focus of the first basic research question was to assess the successes and challenges in the preparation and administration of the university exit exam at Digu and by MoE, and the results were presented as follows.

University Exit Exam Preparation at DIGU and MoE: Successes and Challenges

There were successes in preparing and administrating the exit exam at MoE and Digu. At the MoE level, learning competencies and blueprints were prepared and distributed. MoE also followed up the preparation for the exit exam through periodic supervision. In addition, the exit exam administration manual and protocol were prepared and disseminated to the universities. At the University level, an exit exam implementation plan was prepared in advance; awareness about exit exam was created for the University community. Learning competencies were prepared, reviewed, and given for the prospective graduates ahead of MoE and preparation for the exit exam had been started too early in May 2022. Exit exam committees were organized at different levels of the University and performed their tasks as much as they could. At the Digu level, reading materials for every course were prepared thematically and distributed through the LMS of the University. Model exit exams were given more than once, and the latter was based on the learning competencies and blueprint prepared by MoE. There were monthly planning, implementing, following up, and evaluating preparation for exit exam performance at the University, college, and department level. Planned training about blueprint preparation was facilitated for academics. There was a high motive by the management, the academic leaders, and the academics in preparing the graduate students for the exit exam and in achieving success. At the department level, there were followed up with students during tutorial classes, planning and creating a good environment for helping students with academics that enabled the students to focus on competencies and use their time effectively. The exit exam familiarized the University community with the knowledge and skills of online teaching, learning, and assessment. At the end, one of the participants commented:

As the university exit exam was the first of its kind in higher education institutions in Ethiopia, it has given lessons on the way that students should prepare for their exit exam, and how academics are expected to prepare for the exit exam. Above all, the start of the university exit exam at all universities (public and private) has disrupted the status quo of graduating without any external assessment and has the potential to improve the quality of graduates and the quality of education in higher education in the future.

Table 1. Preparation for exit exam at MoE

Item	Agreement		Disagreement		Missing	
	n	%	n	%	n	%
The learning competencies prepared for the core courses of my department were clear, compressive, and quality.	13	72.2	5	27.8	----	---
There was a match between the learning competencies and the blueprint prepared for my department.	14	77.8	4	22.2	----	-----
The MoE prepared the exit exam for my department graduates in quality having content representativeness from all core courses.	9	50	9	50	----	---
I heard from the students that most of the questions were focused on rote memorization rather than reasoning, problem-solving, and critical thinking.	6	33.3	12	66.7	----	-----
The students informed me that the level of difficulty of the exit exam was considered the higher, the medium, and the lower achiever in their department.	10	55.6	7	39.8	1	5.6
I am very happy with MoE supervision and feedback as it showed the gaps in the preparation for the exit exam in my department/college/University.	9	50	9	50	----	---

As presented in Table 1, nearly three-fourths (72.2%) of the participants agreed that the learning competencies prepared for the core courses of my department were clear, compressive, and in quality while nearly one-fourth (27.8%) disagreed.

As can be seen in Table 1, 77.8% of the participants agreed that there was a match between the learning competencies and the blueprint prepared for their department while 22.2% did not agree. Regarding supervision and feedback given to the University, colleges, and departments and the content validity of the exit exam prepared by MoE, half of the participants (50%) agreed and disagreed respectively. While one-third of the participants (33.3%) agreed that they heard from their students that most of the questions were focused on rote memorization rather than reasoning, problem-solving solving and critical thinking, 66.7% of them disagreed with this experience of their students. While more than half of the participants (55.6%) agreed that the level of difficulty of the exit exam considered the higher, the medium, and the lower achiever in their department, more than one-third (39.8%) of them disagreed as informed by their students.

Table 2. Preparation for exit exam at DIGU

Item	Agreement		Disagreement		Missing	
	n	%	n	%	n	%
My University had started the preparation early so that the leadership and management at the University level helped us to accomplish tasks related to the exit exam successfully.	15	83.3	3	16.7	---	---
I felt that the University management and the academic leaders at different levels invested all their time in exit exam preparation rather than managing and enhancing the quality of education.	10	55.5	8	44.4	---	---
Most students were reluctant and were not cooperative in attending the makeup and tutorial classes in my department.	11	61.1	7	38.9	---	---
Most academics in my department volunteer to support the students' preparation for exit exam though there were no incentives from the University.	18	100	--	--	---	---
The model exit exams prepared and administered not only helped my students assess their readiness but also improved my test construction and item analysis professionally.	12	66.6	5	27.8	1	5.6
As an academic leader, I had confirmed that the students of my department were ready academically, technologically, and psychologically.	8	44.4	9	50	1	5.6

Table 2 illustrates that the majority of the participants (83.3%) agreed that the University had started the preparation early so that the leadership and management at the University level helped us to accomplish tasks related to the exit exam whereas, 16.7% did not agree on this experience. Regarding this feeling about the University management and the academic leaders at different levels investing all their time in exit exam preparation rather than managing and enhancing the quality of education, more than half (55.5%) agree while 44.4% disagreed. While 61.1% of the participants agreed that most of the students were reluctant and were not cooperative about attending the makeup and tutorial classes in their department, 38.9% of them did not agree with this experience whereas, all of the participants (100%) agreed that most of the academics in their

department were volunteer for supporting the students' preparation for exit exam though there were no incentives from the University. About the importance of the model exit exam prepared in the University for students to check their readiness and to improve their skills in constructing tests and analyzing items, two-thirds(66.6%) agreed while more than one-fourth of them (27.8%) disagreed. As an academic leader at the department and college level, the participants should confirm if their students are ready academically, technologically, and psychologically. However, while half of the participants (50%) disagreed, 44.4% of them did it.

Table 3. Exit exam Administration

Item	Agreement		Disagreement	
	n	%	n	%
I felt that the authority given to each university by MoE to facilitate the administration of the exit exam online was morally right but practically wrong.	11	61.1	7	38.9
I felt that the gossip of ill exit exam administration in other universities disseminated through different mediums highly affected the authentic exit exam administration in another university.	13	72.3	5	27.8
In my view, the authority given to each university to administer the exit exam gave the fate to facilitate things for the higher exit exam pass rate of its graduates.	14	77.8	4	22.2
I believe that if the goal of the national exit exam is to assess the quality of the outputs (graduates) of each university, external supervisors and invigilators should facilitate the online exit exam.	14	77.7	4	22.3

As depicted in Table 3, 61.1% of the participants agreed that they felt that the authority given to each university by MoE to facilitate the administration of the exit exam online was morally right but practically wrong while 38.9% of them disagreed. Concerning the authority given to each university to administer the exit exam gave the fate to facilitate things for the higher exit exam pass rate of its graduates, more than three-fourths (77.8%) of the participants agreed while nearly one-fourth (22.2%) disagreed. The same percentage of participants also agreed(77.7%) and disagreed(22.3%) respectively concerning exit exam administration by external supervisors and invigilators if the goal of the national exit exam is to assess the quality of the outputs (graduates) of each university. In general, the survey indicated that there were successes and challenges in the preparation and administration of the national exit exam at the Digu and MoE levels.

The qualitative data from the open-ended questions of the survey revealed that there were gaps observed in the preparation and administration of the exit exam at different levels. At the MoE level, the concern for exit exam might be lower than at the University level. MoE did not create enough awareness for the students and the community through different mediums so some students and their families misunderstood the main aim of the exit exam information disseminated was not consistent. In some departments, the exit exam was prepared from the previous curriculum instead of the current curriculum; there was a mismatch between the curriculum, the learning competencies, and the blueprint. The absence of harmonized modules on the core courses at the national level, the national exit exam questions were prepared by a few academics that were not from different universities and did not include senior academic staff were also the main gaps observed. In addition, the items focused on some core courses and were not prepared according to the blueprint. In this regard, a participant criticized both MoE and Digu, “the blueprint contradicted and did not match with the curriculum, MoE took even no corrective measures and was reluctant, and leaders of

Digudid not respond to the complaints raised at the department level”. There was a mismatch between learning competencies and blueprints prepared for some courses by MoE. There was a mismatch between the exit exam and the competencies as the exit exam included some questions out of the core competencies developed by MoE, and some of the questions were taken from the web. In addition, some of the model exam questions that were prepared in some universities appeared in the national exit exam prepared by MoE.

The shortage of time was also a gap due to the crash program at Digu that resulted in poor teaching and learning processes. This became a burden for the supportive and teaching staff and affected the normal teaching and learning activities as all the activities were directed to preparation for the exit exam only. No incentives were given to the academics who engaged in preparing the students for the exit exam. At the department level, there were gaps in providing worksheets for the students, and individual students' preparation level. There were tight schedules, overlapping activities, a lack of laboratory equipment and reagents, competency gaps in academics in some fields, and a lack of psychological readiness as the exit exam was the first experience for the students. Another participant also critically commented on the gaps observed on the students' side as "the interest of the students to take the exit exam was not good and did not have consistency. The students were reluctant to participate in tutorials and classes and the preparation for the exit exam as a whole. The gaps were also on the students' psychological readiness and their digital skills”. The time allocated for some departments like Mechanical Engineering and Statistics was not fair, and it was a big challenge for the students to do the entire question in the given time. One of the participants commented on the gaps observed in a single department, “among the 14 core courses in the Accounting and Finance Department, the exam focuses only on four core courses; the exam ignored low and middle achievers”. Finally, a participant questioned that “cheating and the gossip of ill exit exam administration in universities disseminated through different mediums highly affect the authentic exit exam administration in other universities” as the university exit exam had been administered by the universities themselves though supervisors were assigned for the mid-February 2024 exit exam administration for formality.

The second basic research question focuses on the CGPA and the national university exit exam achievements of 2023 graduate students at colleges and department levels at Digu, and the results are presented next.

Table 4. Number of students who sat for the national exit exam and graduated by college at Digu University in July 2023

College	Students who sat for the national exit exam	Students who passed the exit exam and graduated	
	n	n	%
Agriculture	284	196	69
Business and Economics	708	311	43.9
Computing	158	81	51.3
Engineering	677	535	79
Law	98	49	50
Health Sciences Campus	327	284	86.9
Natural and Computational	218	108	49.5
Social and Humanities	286	105	36.7
Total	2756	1669	60.6

As depicted in Table 4, while the majority of the graduate students in the Health Science Campus(86.9%) and 69% and 79% of the graduate students of the College of Agriculture and Engineering passed the exit exam respectively, nearly half of Computing(51.3%), Law(50%), and Natural and Computational science(49.5%) colleges graduate students passed the exit exam whereas, 43.9% of the students of College of Business and Economics, and nearly one third(36.7%) of the Social Science and Humanities passed the university exit exam.

The second basic research question also focuses on the students' CGPA of the students at Digu who graduated in July 2023, and the results are presented next.

Table 5 illustrates that while the CGPA mean scores for College of Agriculture (M=3.1, SD=.42), Computing (M=3.1, SD=.41), Engineering (M=3.1, SD=.02), it was 3.2 for Natural and Computational and Social Science and Humanities Colleges, and 3.3 for Health Science Campus whereas, it was the highest (3.4) for College of Business and Economics and Law. However, this is not registered in the students' university exit exam results as shown in Table 8.

Table 5. Descriptive analysis of student's CGPA by college

College	n	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Agriculture	196	3.1	.42368	.03026	2.9855	3.1048	2.15	3.98
Business and Economics	311	3.4	.32756	.01857	3.3572	3.4303	2.42	3.99
Computing	81	3.1	.41001	.04556	3.0137	3.1950	2.37	3.92
Engineering	535	3.1	.35142	.01519	3.0991	3.1588	2.26	3.91
Law	49	3.4	.32078	.04583	3.2844	3.4687	2.59	3.84
Health Science Campus	284	3.3	.35046	.02080	3.2165	3.2984	2.22	4.00
Natural and Computational	108	3.2	.38481	.03703	3.0883	3.2351	2.45	3.95
Social and Humanities	105	3.2	.27598	.02693	3.1033	3.2101	2.55	3.77
Total	1669	3.2	.37436	.00916	3.1823	3.2182	2.15	4.00

The third basic research question emphasizes assessing if there are any significant mean score differences among the departments and colleges in the students' CGPA and the national university exit exam results at Digu and the results are as follows.

Table 6. Analysis of One Way ANOVA for Students' CGPA among the Colleges at DIGU

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	22.640	7	3.234	25.445	.000
Within Groups	211.126	1661	.127		
Total	233.766	1668			

As shown in Table 6, a one-way between-groups analysis of variance was conducted to examine if there are mean differences in students' CGPA among the colleges at Digu. It was found that there was a statistically significant difference at the $p < .05$: $F(7, 1661) = 25.4, p = .000$. The actual difference in mean scores between the colleges was very high as the effect size, calculated using eta

squared, was .09. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for College of Agriculture (M = 3.1, SD=.42368) was significantly different from College of Business and Economics (M =3.4, SD =.32756), College of Law (M=3.4, SD=.32078), and Health Science Campus (M=3.3, SD=.35046). The mean scores for College of Business and Economics (M= 3.4, SD=.32756) was significantly different from College of Agriculture (M= .1, SD=.42368), Computing (M=3.1, SD=.41001), Engineering (M=3.1, SD=.35142), Health Science Campus (M=3.3, SD=.35046), Natural and Computational Science (M=3.2,SD=.38481) and Social Science Humanities (M=3.2, SD=.27598). There was also a significant mean scores difference between the College of Computing (M=3.1, SD=.41001), and Colleges of Business and Economics (M= 3.4, SD=.32756), Law (M=3.4, SD=.32078), and Health Science Campus (M=3.3, SD=.35046). The mean score for College of Engineering (M=3.1, SD=.35) was significantly different from Colleges of Business and Economics (M=3.4, SD=.32756), Law (M=3.4, SD=.32078) and Health Science Campus (M=3.3, SD=.35046). There was significant mean score difference between College of Law (M=3.4, SD=.32078), and Colleges of Agriculture (M= 3.1, SD=.42368), Computing (M=3.1, SD=.41001), Engineering (M=3.1, SD=.35142), Natural and Computational Science (M=3.2, SD=.38481) and Social Science Humanities (M=3.2, SD=.27598). The mean score for Health Science Campus (M=3.3, SD=.35046) was significantly different from Colleges of Agriculture (M= 3.1, SD=.42368), Business and Economics (M= 3.4, SD=.32756), Computing (M=3.1, SD=.41001) and Engineering (M=3.1, SD=.35142). There was also a significant mean scores difference between Colleges of Natural and Computation Science (M=3.2, SD=.38481), and Social Science and Humanities (M=3.2, SD=.27598) with Colleges of Business and Economics (M=3.4, SD=.32756) and Law (M=3.4, SD=.32078).

Table 7. Descriptive analysis of students' national university exit exam achievement by department

Name of the department	Mean	Std. Deviation	Minimum	Maximum	Name of the department	Mean	Std. Deviation	Minimum	Maximum
Agro economics	62.28	6.61	50	76	Anesthesia	57.67	5.03	53	63
Animal Science	64.36	7.48	50	75	Health Officer	69.98	7.69	51	84
Horticulture	54.94	5.51	50	68	Medical Laboratory Science	77.56	5.24	68	87
Natural Resource Management	66.88	8.01	50	84	Medicine	81.24	5.19	69	88
Plant Science	53.13	2.17	50	57	Midwifery	75.98	6.89	58	87
Accounting and Finance	54.67	4.82	50	69	Nursing	66.71	6.45	51	80
Economics	62.68	8.03	50	82	Pharmacy	71.58	11.38	50	88
Logistics and Supply Chain Management	60.50	7.61	50	76	Biology	60.29	5.92	50	71
Management	59.79	7.09	50	81	Biotechnology	56.90	3.84	50	64
Marketing Management	60.64	7.56	50	77	Chemistry	60.95	7.17	51	73
Tourism Management	60.81	7.89	50	75	Geology	59.90	6.37	51	72
Computer Science	64.23	8.90	50	81	Mathematics	65.67	10.33	54	81
Information Systems	71.67	7.13	57	83	Sport	59.70	7.48	50	77
Information Technology	51.14	1.07	50	53	Statistics	63.00	7.82	51	72
Chemical Engineering	56.28	4.72	50	69	Amharic	59.39	5.23	50	72
Civil Engineering	58.83	5.29	50	71	Civics and Ethical Studies	53.33	4.08	50	61

Construction Technology and Management	61.65	7.11	50	79	English	57.25	9.88	51	72
Electrical and Computer Engineering	68.54	6.98	50	82	Geography and Environmental studies	56.52	6.66	50	72
Food Engineering	58.90	5.10	51	73	History and Heritage Management	61.50	6.39	52	71
Industrial Engineering	58.41	3.99	53	69	Journalism and Communication	65.85	8.72	52	78
Mechanical Engineering	56.25	4.34	50	67	Psychology	57.89	7.98	50	73
Surveying Engineering	64.68	6.76	51	76	Sociology	57.53	5.91	50	68
Law	62.35	6.50	51	75	Total	63.41	9.00	50	88

Keys: * 80-100, Excellent; 70-79, Vey good, 60-69, Good, 50-59 Satisfactory...(for non-health science Undergraduate students at)

* 90-100, Outstanding; 80-89, Excellent, 75-79, very good; 70-74, good; 65-69, satisfactory; 60-64, and 50-59, unsatisfactory (for health science undergraduate students); Source Digu Legislations, 2012).fair

As illustrated in Table 7, the Information Technology Department students' achievement, mean score was the lowest ($M=51.14$, $SD=1.069$) with the least deviation from the mean among the 45 departments whereas students' mean score of the Department of Medicine was the highest ($M=81.24$, $SD=5.194$) with moderate deviation from the mean. The students' exit exam achievement, mean scores were the lowest for the departments of Plant Science($M=53.13$, $SD=2.17$), Civics and Ethical Education ($M= 53.33$, $SD=4.08$), Accounting and Finance ($M=54.67$, $SD=4.82$), Horticulture($M=54.94$, $SD=5.51$),Mechanical Engineering($M=56.25$, $SD=4.34$),Chemical Engineering($M=56.28$, $SD=4.72$),Biotechnology($M=56.90$, $SD=3.84$), Geography and Environmental Studies ($M=56.52$, $SD=6.66$), Anaesthesia($M=57.67$, $SD=5.03$), English($M=57.25$, $SD=9.88$), Sociology ($M=57.53$, $SD=5.91$), Psychology($M=57.89$, $SD=7.98$), Industrial Engineering($M=58.41$, $SD=3.99$),Civil Engineering($M=58.83$, $SD=5.29$), Food Engineering ($M=58.90$, $SD=5.10$), Amharic($M=59.39$, $SD=5.23$), Sport($M=59.70$, $SD=7.48$), Management($M=59.79$, $SD=7.09$) and Geology($M=59.90$, $SD=6.37$). This shows that the university exit exam achievement of 19 departments (42.2%) was satisfactory while the Anaesthesia department mean score was unsatisfactory as judged in line with the University legislation.

Table 7 also presents that the achievement of the departments of Logistics and Supply Chain Management ($M=60.50$, $SD=7.61$), Agro economics ($M=62.28$, $SD=6.61$), Economics($M=62.68$, $SD=8.03$), Animal Science($M=64.36$, $SD=7.40$), Natural Resource Management($M=66.88$, $SD=8.01$), Marketing Management($M=60.64$, $SD=7.56$), Tourism Management($M=60.81$, $SD=7.89$), Computer Science($M=64.23$, $SD=8.90$),Construction Technology and Management($M=61.65$, $SD=7.11$), Electrical and Computer Engineering($M=68.54$, $SD=6.98$), Surveying Engineering($M=64.68$, $SD=6.76$), Law($M=62.35$, $SD=6.50$), Biology($M=60.29$, $SD=5.92$), Nursing($M=66.71$, $SD=6.45$), Chemistry($M=60.95$, $SD=7.17$), Mathematics($M=65.67$, $SD=10.33$), Statistics($M=63.00$, $SD=7.82$)HistoryandHeritage Management($M=61.50$, $SD=6.39$), Journalism and Communication($M=65.85$, $SD=8.72$), and Health Officer ($M=69.98$, $SD=7.70$) were medium. This implies that while students in 18(40%) of departments other than health sciences achieved medium mean scores, students from the two health science departments(Nursing & Health Officer) achieved satisfactory mean scores.While the

achievement of exit exam mean scores of Information Systems (M=71.67, SD=7.13) and Medical Laboratory Science (M=77.56, SD=5.24) were very good, the exit exam achievement of the departments of Pharmacy (M=71.58, SD=11.38) and Midwifery (M=75.98, SD=6.89) was good. Overall, it seems that the majority of the students who took the national university exit exam in July 2023 at Digu University achieved satisfactory and good results.

As can be seen in Table 8, the mean score of students in the Health Sciences Campus (M=72.49, SD=8.62) was the highest compared with the mean scores of the students in the national exit exam in the six colleges. The medium mean score was registered in Computing College (M= 65.85, SD=9.70) whereas, the lowest mean score was in College of Social Science and Humanities (M=59.28, SD=7.61). While the mean score of the students' national exit exam results for Colleges of Agriculture (M=62.80, SD=7.81) and Law (M=62.35, SD=6.50), and colleges of Business and Economics (M=60.12, SD=7.55) and Natural and computational Science (M=60.38, SD=6.99) were nearly equal, the mean score of students in College of Engineering was 61.88.

Table 8. Descriptive analysis of student's national exit exam results by college

College	n	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Agriculture	196	62.80	7.81	.557	61.70	63.90	50	84
Business and Economics	311	60.12	7.55	.428	59.28	60.96	50	82
Computing	81	65.85	9.70	1.078	63.71	68.00	50	83
Engineering	535	61.88	7.78	.336	61.22	62.54	50	82
Law	49	62.35	6.50	.929	60.48	64.21	51	75
Health Sciences Campus	284	72.49	8.62	.512	71.48	73.50	50	88
Natural and Computational	108	60.38	6.99	.673	59.05	61.71	50	81
Social and Humanities	105	59.28	7.61	.742	57.80	60.75	50	78
Total	1669	63.41	9.00	.220	62.98	63.84	50	88

Overall, descriptive analysis showed that there were mean score differences among the colleges. To examine if the difference was significant or not, one-way ANOVA was used and the finding was presented next.

As indicated in Table 9, a one-way between-group analysis of variance was conducted to examine if there were mean score differences in students' national university exit exam results among the colleges at Digu. Table 9 indicates that It was found that there was a statistically significant mean score difference among the colleges at $p < .05$: $F(7, 1661) = 71.9$, $p = .000$. The actual difference in mean scores between the colleges was very high as the effect size, calculated using eta squared, was .2.

Table 9. Analysis of One Way ANOVA for students' national exit exam results among the colleges of DIGU

	The sum of Squares	df	Mean Square	F	Sig.
Between Groups	31426.844	7	4489.549	71.902	.000
Within Groups	103713.015	1661	62.440		
Total	135139.859	1668			

Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the College of Agriculture (M=62.80, SD=7.81) was different from the College of Business and Economics (M=60.12, SD=7.55), Health Science Campus (M=72.49, SD=8.621) and College of Social Science and Humanities (M= 59.28, SD=7.61). The mean score of the College of Business and Economics (M=60.12, SD=7.55) was also different from the Colleges of Agriculture (M=62.80, SD=7.81), Computing (M=65.85, SD=9.70) and Engineering (M=61.88, SD=7.78) and Health Science Campus (M=72.49,SD=8.62). The mean score for College of Computing (M=65.85, SD=9.70) was different from Health Science Campus (M=72.49,SD=8.62), and Colleges of Business and Economics (M=60.12, SD=7.55), Engineering (M=61.88, SD=7.78), Natural and Computational Science(M=60.38, SD=6.99), and Social Science and Humanities (M= 59.28, SD=7.61). The mean score of the College of Engineering (M=61.88, SD=7.78) was also different from Colleges of Business and Economics (M= 60.12, SD=7.55), Computing (M=65.85, SD=9.70), Social Science and Humanities (M= 59.28, SD=7.61) and Health Science Campus (M=72.49,SD=8.62). The mean score of the College of Social Science and Humanities (M= 59.28, SD=7.61) was found different from the Colleges of Agriculture (M=62.80, SD=7.81), Computing (M=65.85, SD=9.70), Engineering (M=61.88, SD=7.78), and Health Science Campus (M=72.49, SD=8.62). While the mean score of Health Science Campus (M=72.49, SD=8.62) was different from all the colleges, the mean score of College of Natural and Computational Science (M=60.38, SD=6.99) was different from College of Computing (M=65.85, SD=9.70) and Health Science Campus (M=72.49, SD=8.62) whereas, the mean score of College of Law(M=62.35, SD=6.50) was found different from only Health Science Campus (M=72.49, SD=8.62). The possible explanation for this is that students who achieved the highest on university entry, freshman grades, and department admonition test joined Medicine and Health Sciences, and Law from natural and social science first-year students.

The fourth basic research question examines if there is there positive relationship between students' CGPA and their national university exit exam results and if the students' CGPA explains their students' national exit exam results and the results are presented as follows.

Table 10. The relationship between CGPA and their national exit exam results at Digu

		Student's National Exit Exam Result	Student's cumulative grade point average
Student's National Exit Exam Result	Pearson Correlation	1	.373**
	Sig. (2-tailed)		.000
	N	1669	1669
Student's cumulative grade point average	Pearson Correlation	.373**	1
	Sig. (2-tailed)	.000	
	N	1669	1669

Table 10 shows that the relationship between students' CGPA and their national university exit exam was investigated using Pearson r. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a medium, positive correlation between the two variables, $r=.37$, $n=1669$, $p<.0005$, with 13.69% shared variance, which

students' CGPA helps to explain nearly 14% of students' national university exit exam results. This implies that either the assessment and evaluation of Digu University were inflated or the university exit exam might be difficult or lacked validity and reliability.

5. DISCUSSION

The findings of this study revealed that there were gaps in the preparation and administration of university exit exams at the Digu and MOE levels. The author argues that MoE should first assist the HEIs (both public and private) in Ethiopia to revise and harmonize the curricula of the core courses that national university exit exam are prepared at least in similar programs. However, one of the findings of this study indicated that there were gaps between the curriculum, the learning competencies, and the blueprints in some core courses and programs. The author also argues that MoE should develop the capacity of the academics in the HEIs about the concept, contents (knowledge, skills & attitude), and how to write and use learning competencies in line with the revised version of Bloom Taxonomy before the introduction of university exit exam as external quality assurance mechanisms so that both the academics and the students can exercise in the teaching and learning process. Nevertheless, one of the challenges experienced in preparation for the exit exam at the Digu and MoE levels was that there were gaps in the preparation of the learning competencies and blueprints. The author strongly claims that it is not ethical to evaluate graduate students through university exit exam using learning competencies at the end without teaching and assessing based curricula whose learning outcomes/competencies are defined and implemented throughout their study periods in the HEIs. The author believes that one of the medium positive relationships between students' CGPA and their university exit exam results ($r=.37$, $n=1669$, $p<.0005$) emanated from the gaps in the actual teaching, learning, and assessment and the exit exam examination in line with learning competencies. Consequently, the author contends that the inputs, processes, and outputs (graduates) of the HEIs should be managed not only using the exit exam as a quality assurance mechanism at the end, rather as MoE has tried to change the structure from quality assurance to quality enhancement in the HEIs though both are inseparable practically.

Similar to the findings of Geda (2014) and Tefera (2014); and Pham, Nguyen, Pham, and Ta (2022) the results of the internal quality assurance in HEIs in Ethiopia and Vietnamese respectively were not used for continuous improvement, the author contends that the results of both the internal and external quality assurance in Ethiopian HEIs including the university exit exam should be used as a benchmark and for continuous improvement rather than conducted periodically for a protocol of graduation.

Implication for Practice

The findings of the current study have both theoretical and practical implications. Theoretically, the quality of education in HEIs in Ethiopia and the globe should be led and managed using the inputs (the Quality of students enrolled, the Quality and competencies of the academics, the Quality of the curricula of the academic programs, the Quality of the academic services like library and laboratory, the Quality administrative services), the processes (the Quality of the teaching, learning, and assessment, the Quality of instructional leadership) and the outputs (the Quality and competencies of the graduates). As a result, as revealed in the literature review, the limitation of the 5Q model of quality education developed by Ashraf and Ahmed (2022) was indicated, and the author extends and proposes the 8Q model of quality education in HEIs as illustrated as follows.

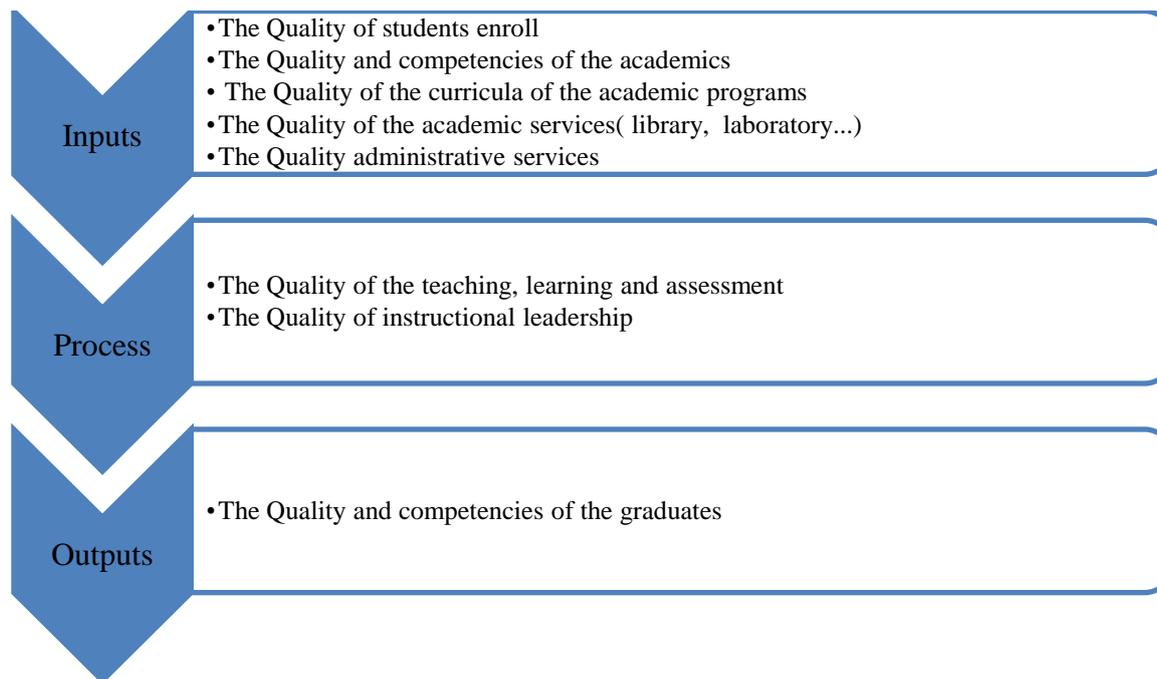


Figure 1: Proposed 8Q model of quality education in HEIs

Moreover, the finding of preparing and administering university exit exam has implications for practice in HEIs in Ethiopia and the globe:

- The introduction of the university exit exam should begin with the revision of the curriculum of each program so that the core, supportive, and elective courses will be identified, expected learning competencies will be stated in terms of learning outcomes comprised of the cognitive, psychomotor and affective domains from lower to higher order, methods of teaching, learning, and assessment that can be used across the HEIs consistently.
- After preparing the students through the revised curricula, and introducing the concept and purpose of the university exit exam since they joined each program, MoE can ensure the quality of the graduates of both the public and private HEIs if they are prepared and competent for the labor market by assessing the core and soft skills through reliable and valid university exit exam.
- The university exit exam should be prepared, tested, and made ready by the right and ethical senior professionals from each discipline and experts in psychometrics.
- As there were lots of inconsistencies and gaps observed and heard in the university exit exam administration across the HEIs, until an independent entity owns the preparation and administration of the exit exam, external supervisors and invigilators should manage the exam from other universities.
- Before realizing the results of the exit exam to the students and the public, MoE should deal with problematic questions highlighted by the online exam management system by checking that each question is valid and the contents are covered properly.
- In the end, the results of the university exit exam should be used by MoE and each HEI to lead and manage the inputs and the processes to improve the quality and competencies of the graduates continuously. Also, it is suggested that the practice of preparing and administering the university exit exam should be utilized to revisit the policy of HEIs in Ethiopia and the globe.

6. CONCLUSION

Even though the introduction of university exit exam in HEIs in Ethiopia disrupted the status quo of graduating students from both private and public HEIs without taking the exit exam and scoring 50 and above out of 100, based on the findings, it can be concluded that it seems that it was introduced for formality, not as quality enhancement and assurance mechanism as there was no proper preparation and development of the students core skills at least by revisiting the curricula of the programs and managing the quality of the teaching, learning and assessment processes at Digu and MoE levels.

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