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# How university governance affects education service quality: insights from Ethiopian public universities

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University governance plays a significant role in bringing about change because it is one of the most critical variables in determining the success of higher education institutions. Hence, this study aimed to investigate the influence of university governance on the education service quality of Ethiopian public universities. Accordingly, the current study focuses on five key university governance principles: accountability, autonomy, academic freedom, transparency and responsibility. The study utilized a multiple linear regression model, which made use of quantitative data sources. Data was collected from 378 instructors and academic officials from six public institutions, including department heads, deans, faculty heads, and directors. The research utilized a closed-ended questionnaire. Using SPSS software version 20, the quantitative data were examined using the descriptive statistics and inferential statistics techniques. The results of the regression analysis and correlation were discovered. The correlation result indicates that accountability and academic freedom parameters had a positive and strong correlation with education service quality. The regression results showed that academic freedom positively affected the education service quality while accountability and responsibility negatively affected the quality of education services of Ethiopian public universities. Academic leaders and staff of public universities should therefore practice academic freedom, transparency, and autonomous decision-making through implementing university governance principles in their respective public universities in Ethiopia.

KEYWORDS

university governance, education service quality, higher education, public universities, Ethiopia

# 1 Introduction

Higher education is at a critical juncture, facing a choice between two paths. The socioecological transition calls for new forms of research and learning that promote alternative capabilities and values that enhance the well-being of the planet and its people. The other path is the commodification of knowledge creation and learning, which prioritizes optimization and efficiency, with a primary focus on economic well-being. This decision will significantly shape the future role of higher education in society (Bauer et al., 2021).

Higher education has become a vital pillar of social development, serving as a foundation for scientific and technological innovation, while producing a highly skilled workforce (Sun, 2023). Teichler (2015) noted that higher education influences societal development by enhancing competencies and skills related to occupational structures and employment requirements. Abualrub and Pinheiro (2022) highlighted its role in addressing regional and local demands, forming a knowledge economy essential for both industrialized and developing

nations. Smolentseva (2023) adds that higher education benefits society through teaching and knowledge production as well as the transmission of culture, norms, and values. While some contributions are clear, such as advancements in research, others, such as the impact of degree on social inequality, remain debated. Higher education plays a multifaceted role in shaping society.

Over the past three to four decades, higher education systems have undergone significant improvements and legislative changes worldwide. This transformation has been driven by several factors, including globalization, increasing economic importance of knowledge, advancements in information technology, and declining public funding. These elements place considerable pressure on higher education institutions to adapt (Gebremeskel and Feleke, 2016). According to Abugre (2018), universities are a public good essential for meeting societal needs that extend beyond individual benefits and financial gains; they also contribute to the growth and enhancement of a nation's economy. A notable structural change in many universities has been the evolution of their decision-making processes, particularly in governance (Kretek and Kehm, 2015; Yudianto et al., 2021).

Numerous international studies have explored the relationship between changes in higher education and university governance. Research by Pham (2012), Dobbins (2017), Stensaker and Harvey (2010), and Kretek and Kehm (2015) has highlighted the urgent need for significant reforms in higher education management in order to enhance the quality of educational services. African studies conducted by Bingab et al. (2018), Mzenzi (2022), Davidovitch and Iram (2015), Asiimwe and Steyn (2013, 2014), Abugre (2018), and Asongu and Odhiambo (2020) found that university governance has transformed the roles of academic leaders, making them more accountable in their decision-making processes and improving internal consistency in educational service delivery. Scholars have suggested that academics worldwide are becoming increasingly interested in university governance to implement competitive teaching and learning processes that enable universities to compete globally.

This study focuses on the relationship between university governance and the quality of education services, specifically examining how governance concepts can enhance instructional standards at Ethiopian public universities. However, the researchers found a lack of sufficient studies on this topic.

There are a few notable exceptions, such as Mekonnen et al. (2022), who discussed the Bologna process and its implications for a subset of Ethiopian public universities. Their research emphasized the empowerment of university academic leaders through the principles of accountability, autonomy, academic freedom, participation, and transparency. Similarly, Melu (2022) explored the governance patterns of higher education institutions in Ethiopia in relation to massification.

Additionally, Dea and Zeleke (2017) addressed the governance issues facing Ethiopian public universities in the Southern Region, particularly from professional and administrative accountability perspectives. They noted that the implementation of accountability measures in higher education is still in its infancy. Scholars worldwide are increasingly interested in university governance for fostering competitive teaching and learning processes that enable universities to thrive.

This study examines how university governance affects the quality of educational services, specifically in Ethiopian public universities. This study aims to address this gap in the understanding of how governance principles can enhance the current provision of

educational services in areas such as teaching and learning, research, and community engagement.

Previous research by Lewis and Pettersson (2009), Geuna and Muscio (2009), Asiimwe and Steyn (2014), and Asongu and Odhiambo (2020) has highlighted the significance of university governance in improving the educational system and ensuring quality education delivery. These studies emphasize that governance can enhance standards, promote accountability, and improve access to information in public universities. Despite these findings indicating the importance of university governance for enhancing quality of education in public universities, there is a lack of evidence demonstrating how these governance principles are particularly applied to improve educational quality in teaching, research, and community engagement. This study seeks to fill that gap by providing insights into implementation of governance practices that can lead to better educational outcomes.

Research by Darawong and Sandmaung (2019), Zhu and Sharp (2021), and Zaman (2015) shows that good governance is essential for raising educational standards, which can be achieved by balancing accountability, autonomy, academic freedom, transparency, and responsibility within higher education systems, which serve as foundational elements for the improvement of education.

Universities are concerned with enhancing accountability (Risanty and Kesuma, 2019). Studies have also found that university governance acts as a guide for universities to achieve their missions and goals, such as teaching and learning, research, and knowledge transfer, and that its implementation is essential to drive efficiency, transparency, and consistency with laws and regulations (Risanty and Kesuma, 2019). Autonomy, as a university governance principle, is a complex concept that can impact the decision-making process. It has academic, financial, organizational, and personnel aspects (Al Gharsi et al., 2024). Responsibility creates high-quality and free discrimination for concerned bodies in higher education, including students, researchers, and supportive personnel (De Moraes Abrahão et al., 2024). The concept of academic freedom in public universities give the freedom to express views on the decision making process to members of the academic communities, independent researchers, and a wide rage of educational practitioners who are working on educational governance implementation (Vrielink et al., 2011). Most nations have increased their universities' reporting and transparency requirements, partly because of the strong competition for limited state funding and other public sector reorganizations (Rymarzak et al., 2020). In contemporary university governance, authority and accountability are continuous themes. In this sense, the level of educational services depends on quality-centered governance, which includes a quality balance between rights and obligations. Laws and regulations usually serve as the foundation for the independent quality criteria established by universities. Similarly, universities are responsible for managing their own quality independently (Wu and Sarker, 2022).

This study examined how university governance impacts education service quality and explored the connection between university governance and quality of education services in Ethiopian public universities. While Tamrat (2022) emphasizes the longstanding commitment of universities to excellence, Mulatu and Zeleke (2017) highlighted the limited research on university governance in Ethiopia. Studies by Yirdaw (2016), Mekonnen et al. (2022), and Tamrat (2022) have attempted to illustrate the significance of university governance in transforming higher education by implementing governance

concepts effectively, underscoring the need for further investigation into how governance principles can enhance education services for the community and other stakeholders. Studies have been conducted on the quality of governance services in Ethiopian public universities.

Despite the limited literature on the relationship between university governance and education service quality in Ethiopian public universities, this study seeks to contribute to the existing knowledge on the topic and addresses the following research questions:

- 1 What are the current features of university governance in Ethiopian public universities?
- 2 What is the relationship between university governance and the quality of educational services in Ethiopian public universities?

# 2 Literature review

# 2.1 Theoretical framework

The governance of higher education institutions (HEIs) encompasses the systems and processes that guide decision—making on matters that affect the campus community and its stakeholders (Abubakar et al., 2020). Different types of organizations, whether public, private, non-profit, or for-profit, exhibit distinct governance structures owing to their unique characteristics. University governance is defined as "constitutional forms and processes through which universities govern their affairs" (Quyên, 2014). Attaining sustainability by carefully matching each institution's unique sustainability goals with its mission and operations is essential to good governance for HEIs in the 21st century. Currently, effective governance is crucial to achieving sustainability by aligning each institution's specific goals with its mission and operations. The governance framework is essential for managing outreach, pedagogy, research, and campus operations to ensure overall campus sustainability.

The global shift toward knowledge-based economies has made knowledge a central focus of public policy and decision-making. However, knowledge governance involves more than mere policy coordination; it requires collaboration across various policy sectors that may not have previously interacted (Chou et al., 2017). Governance studies have been linked to numerous issues including economic growth, health, institutions, and education. Effective governance is often viewed as a key driver of economic transformation, attracting investment and promoting growth (Alimi and Ben, 2023). Similarly, Williamson (1998) explores how governments influence institutional economic transactions by modifying the environment through modifications to endogenous preference behaviors.

In the health sector, the significance of governance is increasingly recognized by donors and health officials, who understand that neglecting governance can lead to inefficiencies in utilizing health resources (Brinkerhoff and Bossert, 2008). University governance plays a significant role in bringing about change, because it is one of the most critical variables in determining the success of these institutions. Various national contexts; institutional types; historical legacies; and other cultural, political, and economic considerations influence governance styles (World Bank Report, 2012).

Agency theory is relevant in examining the governance of autonomous agencies. Rooted in multiple social science disciplines such as public administration, economics, political science, and organization, agency theory provides valuable insights into various governance-related issues (Schillemans and Bjurstrøm, 2020). According to Kivistö (2008), agency theory describes a relationship where one or more parties act as principals who engage agents responsible for executing tasks on their behalf; the primary focus of agency theory is the relationship between an organization's prerequisites or shareholders and its agents or managers. In the context of higher education, the framework of agency theory is built upon the government-university relationship as an agent relationship based on three elements: (1) tasks that the government delegates to a university (teaching and research), (2) resources that the government allocates to universities that accomplish those tasks, and (3) government interest in overseeing the accomplishment of tasks (Kivistö, 2008). Christopher (2012) added that agency theory relies on the idea that controls are necessary to align management's interests with those of the principal. In accordance with this approach, public universities create and implement transparency and accountability procedures as independently incorporated businesses to match management's interests with those of the government, adhering to its principles.

In conclusion, presently, the government gives authority and responsibility to university presidents and vice presidents based on legislation with the necessary accountability, autonomy, and academic feedback to govern their respective institution in a transparent and responsible manner.

The concepts of university governance and shared governance are interconnected and describe the organization of decision-making processes within higher education institutions. Shared governance ensures that decisions are made with an academic focus rather than solely from an administrative perspective. This model encourages collaboration between faculty and administrators to collectively manage university operations. According to Stensaker and Vabø (2013), agency theory relies on the idea that controls are necessary to bring management's interest into alignment with those of the principal.

Institutional governance has been highlighted as a significant challenge for many universities (Atashzadeh-Shoorideh et al., 2019). Ozga (2009) noted a shift in educational governance from centralized and hierarchical forms toward more centralized and networked approaches. In higher education, shared governance involves all stakeholders in the decision-making process. Crellin (2010) emphasizes that successful shared governance relies on effective group decision-making within colleges and universities.

University policies and regulations define the rights and responsibilities of various actors within universities and serve as the foundation for both formal and informal authority under prescribed laws (Saint, 2004; Shattock, 2006; Aschalew, 2011; Altbach, 2011a, 2011b; Woldegiyorgis, 2014; Kretek and Kehm, 2015; Mehari, 2016; Dea and Zeleke 2017; Lera, 2019; Mekonnen et al., 2022). Universities are seen as a foundation for high-quality human resource development, which encourages them to explore high-quality services in the education sector and related service supply (Kusuma et al., 2018). They provide an environment conducive to academic inquiry, in which cutting-edge ideas can flourish (Altbach, 2011a, 2011b). University governance is a critical decision-making process that enables institutions to define their objectives and policies while working toward achievements (Trakman and South, 2008).

When it comes to implementing university governance in public institutions across national, international, and continental contexts, the conceptual framework of this study, examining the values of accountability, autonomy, responsibility, academic freedom, and openness, is crucial. These guidelines also apply to university governance. The quality of education that public universities are designed to provide to students, the public at large, and the surrounding community improves when these five principles of university governance are effectively applied. As a result, modern university governance concepts are vital for enhancing the delivery of educational services and maintaining their quality in accordance with established guidelines. Using this approach, this study examines how university governance affects the ability of Ethiopian public universities to provide high-quality education services.

# 2.2 Empirical literature review

Efficient university governance is essential for delivering highquality educational services. The structure, leadership, and administration of a university significantly influence various factors such as research initiatives, student services, faculty recruitment and support, curriculum development, and overall institutional effectiveness.

Zaman (2015) emphasizes that universities with effective governance are crucial for enhancing the standards of higher education globally; academic institutions, driven by their missions, primarily focus on three core responsibilities: teaching, research, and community engagement. Thus, academic leaders must ensure that their initiatives align with the mission of the educational establishment and effectively serve its constituents. Additionally, university leaders are tasked with distinguishing their institutions' missions from those of their competitors. A university's mission underpins its philosophy, intentions, and instructional goals (Darwish et al., 2022).

University governance plays a major role in improving higher education leadership capacities, which transform the educational process within higher education. By effectively improving internal processes and implementing governance principles, universities can foster a supportive governance culture. This can be achieved by selecting capable leaders and encouraging stakeholders to contribute to educational services (Keczer, 2015).

According to Sultana (2012), governance in higher education has recently received attention and is now recognized as a critical policy issue in the 21st century. Mzenzi (2022) further notes that research on university governance can enhance global academic standards by improving human capital development, resource efficiency, and the quality of university education. Consequently, university administrations are actively seeking methods to elevate the quality of their educational programs.

In summary, effective university governance is not only fundamental for maintaining high educational standards but also for fostering an environment conducive to teaching, research, and community engagement. By prioritizing good governance practices, universities can significantly enhance their operational effectiveness and overall impact on students and society.

Improvements in university education performance are important issues for the 21st century according to Vidovich and Currie (2011),

Christopher (2012), and Kvilhaugsvik (2022). These changes have a significant impact on research, teaching, learning, and community engagement through the participation of senates, councils, and boards in various contexts.

Numerous studies on university governance issues have been conducted in Ethiopia. Dea (2019) investigated the subject of university governance with regard to administrative leaders and professionals' accountability, autonomy, and responsibility; the researcher's analysis showed that public university results were in their infancy and did not appear promising. Mekonnen (2020) researched university governance and governmentality: the impact of Bolognia's process in Ethiopian higher education sought to understand leaders, faculty members', and students' strategic reactions to their public university governance system. Kahsay (2012) examines quality control in higher education by defining relationships with external stakeholders, upholding academic standards, selecting university leadership, and setting goals.

# 3 Research method and design

This section outlines the research method and design, including sampling and data collection methods, instruments used, and data analysis techniques. Each aspect was specified and discussed to provide a comprehensive understanding of the research approach.

# 3.1 Research method

Important research issues require in-depth investigation to achieve a holistic understanding (Creswell, 2014). Hence, in this study, a quantitative methodology was adopted because it relies on numerical data and statistical analysis, which helps minimize bias and enhance the reliability of the findings (Kumar, 2011). Furthermore, large sample sizes in quantitative research enable researchers to draw conclusions about the entire population from the group under study (Earl-Babbie, 2013). With the use of statistical analysis techniques, quantitative research enables the testing of hypotheses and offers a transparent framework for comprehending the relationships between the study variables. The objective of this study is to investigate how university governance affects the education service qualities of Ethiopian public universities, and to gather data to understand the rationale, strategies, and significance of university governance principles, which improved the education service quality of public universities in Ethiopia.

Important research issues require an in-depth investigation to achieve a holistic understanding (Creswell, 2014). Therefore, this study adopts a quantitative methodology that relies on numerical data and statistical analysis to minimize bias and enhance the reliability of the findings (Kumar, 2011).

Quantitative research allows for large sample sizes, enabling researchers to draw conclusions about the entire population based on the group under study (Earl-Babbie, 2013). By employing statistical analysis techniques, this approach facilitates hypothesis testing and provides a transparent framework for understanding the relationships between the study variables.

The objective of this study was to investigate how university governance affects the quality of educational services in

Ethiopian public universities. To achieve this, data were collected from six selected public universities to understand the rationale, strategies, and significance of the governance principles that contribute to improving educational service quality in these institutions.

# 3.2 Research design

This study aimed to determine how university governance impacts the quality of education services in Ethiopian public universities. The variables considered in this study include accountability, autonomy, academic freedom, responsibility, and transparency. The correlation research design and regression design were employed to observe the correlation and regression and their relation and impact on the quality of education services, respectively. A five-point Likert scale questionnaire was designed to gather data and provide accurate information to various respondent groups. Additionally, Creswell (2014) further showed that, the questionnaire prepared could be used to collect numerical information for the description of trends, attitudes, or opinions of the population. The researchers make generalizations about the population based on the sample data. As a result, the researchers' survey instrument and background questionnaire served as the study's primary data collection.

# 3.3 Study variables

University governance is defined as the constitutional framework and processes through which universities manage their teaching and learning processes (Hai and Anh, 2022). The independent variable in this study was university governance, which has emerged as a critical policy issue in the 21st century on a global scale. In our study, university governance incorporated five basic principles: accountability, autonomy, academic freedom, responsibility, and transparency (Sultana, 2012).

The dependent variable is the quality of education services, which refers to the delivery of intangible services that satisfy clients and add value (Lodesso et al., 2019). Practitioners and academics are increasingly interested in precise measures of service quality to understand their fundamental antecedents and outcomes. This understanding helps identify the underlying causes and effects of service quality, enabling institutions to develop better strategies to enhance quality and gain a competitive edge in the market (Yavuz and Gülmez, 2016).

# 3.4 Participants and sampling procedure

Participants were selected from six public universities in Ethiopia using a multistage sampling technique. We began by obtaining a list of universities from the Ministry of Education's annual abstract and the 2020 differentiation guidelines from the Ministry of Science and Higher Education (MOSHE). These guidelines classify universities into three categories: research, applied science, and comprehensive.

This study focused on participants from both research and applied science universities across four regional states: Oromia, Amhara, Addis Ababa, and the Southern Nations, Nationalities, and People's Regional State. Public universities were first categorized based on their founding locations, after which specific institutions were deliberately chosen to ensure geographical representation.

The universities selected were Dire Dawa University, Arsi University, Kotebe Education University, Wolaita Sodo University, Bahir Dar University, and Arbaminch University. To determine the sample size for the study, we utilized the Yemane sample size determination formula shown in Equation 1 (Madow, 1968).

$$n = \frac{N}{1 + N(e)^2} \tag{1}$$

N = total population of the study; n indicates the sample size of the study used in e = 0.05

$$n = \frac{7438}{1 + \left(0.05\right)^2} = 378$$

# 3.5 Data collection tool

## 3.5.1 Questionnaire

The development of the questionnaire for this study followed a systematic procedure. Initially, an extensive literature review was conducted, focusing on similar research sources. Based on this review, key items from previous studies were selected for inclusion in the questionnaire. An expert panel consisting of three specialists in educational management then reviewed the initial items. After the questionnaire items were approved by the expert panel, all necessary correction was made. Then, questionnaires were distributed in person to academic personnel and teachers. To further refine the measurement tools, a pilot test was conducted with 20 academic leaders and 40 teachers at Hawassa University. The pilot test resulted in a Cronbach's alpha of 0.8676, indicating a high level of internal consistency and reliability among the items. This suggests that the items effectively measure the same construct consistently. Standardization of the questionnaire enhances comparability and improves the accuracy of the collected data (Field et al., 2012). The survey was designed using a five-point Likert scale in an organized manner: 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, and 5 = strongly agree. Regarding the choice of the scale, Joshi et al. (2015) asserted that the Likert scale is applied as one of the most fundamental and frequently used psychometric tools in educational and social sciences research. Moreover, South et al. (2022) added, by using the scales, researchers can gather quantitative estimates of subjective characteristics, generating numerical data that can be summarized and shown similarly to other quantitative data gathered for assessment.

Before distributing the questionnaire, the researchers provided the participants with a comprehensive explanation of the study's objectives, the significance of their responses, and the importance of maintaining confidentiality.

# 3.6 Validity and reliability

Validity, as defined by Cook and Beckman (2006), refers to the extent to which test results can be trusted when applied for specific purposes. To ensure validity, the researchers designed the questionnaire items in consultation with existing literature and sought feedback from supervisors regarding face and contention validity, based on which appropriate revisions were made to enhance the validity of the survey instrument.

Reliability refers to the consistency or repeatability of the scores obtained from the data collection instruments across multiple evaluations. Kimberlin and Winterstein (2008) emphasize the importance of reliability in assessing two key aspects: ensuring the equivalence of sets of items within the same test and evaluating the stability of measurements presented to the same individual at different times using the same standard.

In this study, the Cronbach's alpha coefficient was employed to assess the internal consistency of the instructor questionnaire items. The analysis revealed a Cronbach's alpha coefficient of  $\alpha=0.8676$  for the survey questionnaire. This value indicates a high level of internal consistency and reliability among the items, suggesting that they effectively measure the same construct. According to Gavoni et al. (2017), Leavy (2017), and Gay et al. (2012), items are considered to have significant internal consistency or item homogeneity if the Cronbach's alpha value exceeds 0.72. This suggests that, to enhance the reliability of the items used in the main study, the instrument's reliability must be evaluated, which will help determine whether the items in each category consistently measure the same construct. This evaluation helps determine whether the items in each category consistently measure the same construct.

# 3.7 Data collection procedure

The study data were gathered between June 1, 2023, and August 27, 2023. The researcher designed data collection instruments by reading and modifying parts of other researchers' questions to make them suitable for this study. This enhanced the reliability of the items and the data collection process. Following Lera (2019), a questionnaire was used for data collection.

The results of his study on perceived governance practices in a subset of Ethiopian public universities, specifically, the relationship between the government, autonomy, accountability, and empowerment, showed that academic leaders failed to create an empowering and transparent environment. The instrument of this study was prepared based on Lera (2019), and Mekonne's dissertation respectively to collect data for this research.

# 3.8 Data analysis

The following protocols served as the basis for the data analysis. Initially, all pertinent data were acquired via data collection tools, and then a questionnaire was used to gather essential data from the participants for the research. The information gathered from the respondents was evaluated to ensure they had provided all the necessary information, which was then verified, clarified, coded, and organized in accordance with the central theme of the research questions. The quantitative survey design approach of data analysis and the description of trends, attitudes, and opinions of the population under study of sample population was disclosed by Creswell (2014). Researchers draw conclusions regarding the population from the sample results.

According to Creswell and Plano Clark (2018), data analysis in quantitative descriptive research is examined depending on the kind of questions that are employed and suitable for statistical tests to answer these research questions, and the research questions formulated prior to data collection inform the choice of data analysis.

After collecting the necessary data through the questionnaire, the researchers entered the data into SPSS software version 20 for analysis to determine the correlation and regression results, which were subsequently presented in tabular form. By adhering to these protocols, the researchers ensured that the data analysis process was rigorous, reliable, and aligned with the study's objective.

# 3.9 Model specification

This study employed a multiple linear regression model, one of the most widely used statistical tools for addressing empirical problems in the social sciences (Wooldridge, 2012; Fahrmeir et al., 2013; Wooldridge, 2012). The use of multi-method research approaches has gained popularity in the social sciences as a means of drawing more robust conclusions (Beach, 2020).

The variables examined in this study include accountability, autonomy, academic freedom, transparency, and responsibility, which are the fundamental pillars of governance principles related to university governance. Supporting this framework, Wooldridge (2012), Lera (2019), and Musselin (2021) focus on these variables as essential components of university governance principles. Consequently, this study concentrated on five independent variables utilized in the regression model, which can be expressed in Equation 2 as follows:

$$UG_i = \alpha + \beta_1 acct + \beta_2 aut + \beta_3 resp + \beta_4 acafr + \beta_5 transp + \varepsilon_i$$
 (2)

where

 $\alpha$  is constant term, *acct* represents academic accountability, aut is the autonomy of university governance principle, resp denotes the responsibility of university governance, acafr denotes the academic freedom of university governance, and transp represents the transparency of university governance. The parameters  $\beta_1 - \beta_5$  indicate the coefficients used to estimate the effect of university governance on education service quality and  $\epsilon$  indicates the error terms that accommodate other factors which were not part of this study.

# 4 Results of descriptive statistics

# 4.1 Demographic characteristics of the respondents

This study aimed to assess the role of university governance in influencing education service quality in Ethiopian public universities. Table 1 presents the demographic characteristics of the respondents in different categories, aligned with the frequency and percentages obtained.

The gender of the respondents is shown in Table 1; 32.8% of the respondents were female, while 66.8% were male.

The respondents' age distributions displayed in Table 1 fall into different groups: 24.6 and 24.3% of the total respondents were aged between 31–35, and 36–40, respectively.

The qualifications indicated that 278 (73.5%) study participants held master's degrees, 39 (10.3%) had a bachelor's degree, 57 (15.1%) had doctorates, and 3 (0.8%) held a postdoctoral degree.

Of the respondents, 156 (41.3%) had 11–15 years of work experience. In contrast, very few respondents had the highest bracket of work experience, fewer than 25 years (0.5%).

The grand mean and standard deviation (2.807 = 1.136) in Table 2, which displays the present state of university implementation of the accountability principles, may indicate that there are limitations in the implementation of accountability. The grand mean and standard deviation of the respondents (2.70 and 1.131, respectively) regarding the current status of applying the autonomy principle in decision-making processes is supported by Christensen (2011), who stated that formal autonomy can be evaluated more broadly as the extent to which central authority decisions and evolving legal frameworks have implied greater formal autonomy for universities as a result of university reforms.

The results also suggest that the ability to take academic responsibility is limited (with a grand mean and standard deviation of 2.76 and 1.135, respectively). In support of this finding, Lera (2019) argued that university academic and administrative staff, including all stakeholders, should implement responsibility in an accountable and transparent manner to change the existing demand of societies in relation to the education services expected from universities.

Regarding the current state of academic freedom practice principles at each university, the grand mean of all respondents was 2.7 (SD = 1.087). This finding suggests that the participants agreed that implementing academic freedom practices based on university governance in Ethiopia's public higher education institutions would enhance the current offering of education services. Christensen (2011) confirmed that the demand for highly specialized knowledge and academic feedback has shaped the unique organization and cultural tradition of the higher education sector; therefore, the general reform of academic feedback may not be compatible or may be difficult to implement.

The grand mean of all respondents in Table 2 illustrates teachers' current status of transparent decision-making practice of academic offers in their respective universities, suggesting that the transparent decision-making process, which is based on university governance in Ethiopia's public higher education institutions, improves the current education service provision.

TABLE 1 The demographic characteristics of the respondents.

Variables	Category	Frequency ( <i>N</i> )	Percentage (%)	
Sex	Male	253	32.8	
	Female	124	66.8	
Age	21-25	36	9.5	
	26-30	44	11.6	
	31-35	93	24.6	
	36-40	92	24.3	
	41-45	63	16.7	
	46-50 51-55	36	9.5	
	56-60	12	3.2	
	61 and above	1	0.3	
Qualification	BA	-	0	
	MA	39	10.3	
	PhD	278	73.5	
	Postdoc	57	15.1	
		3	0.8	
Work	1-5	32	8.5	
experience	6–10	88	23.3	
	11-15	156	41.3	
	16-20	99	26.2	
	21-25	2	0.5	
	26 and above	-	0	
	Total	378	100	

TABLE 2 The grand mean and standard deviation of independent variables.

Variables	Grand Mean	Std Deviation	Observations
Accountability	2.807	1.136	377
Autonomy	2.703	1.131	377
Responsibility	2.762	1.135	377
Academic freedom	2.697	1.087	377
Transparency	2.808	1.093	377

Source: Researcher Survey Data (2023).

To summarize, there have been significant global developments in higher education since the late 1980s. These developments have had significant effects on governance, which is one of the most important components of higher education and has a direct bearing on research and teaching activities. Restructuring higher education systems has made changing the governance of higher education the top objective in many countries. A prominent outcome of these governance innovations has been the establishment of more adaptable and flexible organizational structures that can react swiftly to changing conditions (Huang, 2018). However, the above findings show that the

implementation of university governance principles has lagged behind the expansion of universities in Ethiopia.

# 4.2 The link between university governance and education service quality

The study discovered a connection between the quality of education services provided by Ethiopian public institutions with university governance. The emergence of a knowledge-based economy has encouraged academics and policymakers to produce and share knowledge in order to change the current state of public higher education (Geuna and Muscio, 2009). Findings on the association between education services, university governance, and teaching and learning processes are shown below.

As shown in Table 3 above (52.2%), there is a relationship between education accountability and the teaching and learning process in universities; specifically, education accountability and the teaching and learning process within higher education settings are related, and the teaching and learning process is impacted by appropriate implementation accountability. Melu (2017) highlighted that the university governance principle of accountability modifies the effectiveness of the educational system by producing the desired results of teaching and learning process in support of accountability and its relationship to the teaching and learning process. Based on the examination of data collected from respondents, which showed that more than half (50%) indicated that there is a practice of accountability within higher education, there is a strong correlation between accountability and the teaching learning process. According to the study done by Stensaker and Harvey (2010), one of the largest shifts in higher education over the past few decades has been the growing focus on accountability which has altered the effectiveness of public higher education service delivery.

Table 3 shows autonomy of university governance as a predictor of teaching and learning practices in public higher education. The correlation between autonomy and teaching and learning practices was weak (29.1%), indicating that not all stakeholders in the higher education context, including academic leaders, department chairs, and other responsible bodies, made significant efforts to alter the teaching and learning processes. According to (Shin et al., 2022), institutional autonomy grants higher education institutions the right and authority to choose their own objectives and curricula in a methodical way. As long as academic leaders, instructors, and other stakeholders in public higher education held a position of power and

authority, there was no association found between institutional autonomy as a predictor variable in this study.

According to Pham (2012), public university administrators were granted the freedom to run their teaching and learning process without outside intervention; self-governance enhances the process of teaching and learning; however, the association seen above was negligible compared to the academic freedom granted to everyone involved. Kováts (2018) explained how institutional autonomy contributed to the restricted ways in which organizations such as higher education changed the legal regulatory environment, and the correlation between academic responsibility and the teaching and learning process was found to be 39.6%. Based on the results of the correlation matrix shown above, the teaching and learning process is currently is weak. According to Santos et al. (2020), universities have a responsibility to provide valuable education services to students and all stakeholders. They strive to promote university social responsibility by implementing academic services that are based on social diagnoses, encouraging highquality teaching in all subject areas and developing research projects. However, 39.6% of public universities lag behind the current demand when it comes to their responsibility for identifying students' interest and developing a strategic direction to meet the demands of all interested stakeholders in the field of teaching and learning.

The results of the correlation analysis between teaching and learning practices in public higher education and academic freedom are presented in Table 3; academic freedom was 40.9%. Based on the teachers' comments, there was a correlation between academic freedom practices and changes in the methods of instruction, teaching, and learning in Ethiopia's public universities. Regarding the significance of academic freedom for the university teaching and learning process (Palfreyman, 2007), academic freedom in a university is extremely important for the function of teaching and learning, as well as for enhancing the academic performance of teachers.

Faculty and administrators at universities are held responsible for their choices and actions when there is transparency in their governance. The correlation matrix finding between the university's academic transparency and the adoption of transparent decision—making practices was 26.8%. This finding suggests that despite the importance of academic transparency in transforming the current state of university teaching and learning processes, anticipated transparent activities and decisions were not made. According to Flórez-Parra et al. (2017), there is a significant correlation between transparency and trust in public institutions such as higher education.

TABLE 3 The relationship between university governance and teaching and learning practices in public universities of Ethiopia.

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) Teaching and learning	1.000					
(2) Accountability	0.522	1.000				
(3) Autonomy	0.291	0.337	1.000			
(4) Responsibility	0.396	0.406	0.366	1.000		
(5) Academic freedom	0.409	0.391	0.385	0.377	1.000	
(6) Transparency	0.268	0.331	0.341	0.391	0.334	1.000

Source: Researchers Survey Data (2023).

Transparency is an essential mechanism that establishes credibility and fosters trust, and public administration is employed to attain good governance and institutional quality. Furthermore, Dea (2019) argued that higher education is currently under pressure to match its strategic aims with governmental objectives to improve the quality of teaching and learning outcomes.

# 4.3 The influence of university governance on education service quality

Governance in higher education has gained attention in recent decades and is now globally acknowledged as a critical agenda for improving the quality of education (Sultana, 2012; Asongu and Odhiambo 2020; Kwarteng 2021; Borishade et al., 2021). The linear regression analysis of the teaching and learning process in connection with the application of university governance principles is displayed in the following table.

The influence of university governance on the teaching and learning processes of higher education institutions in Ethiopian public universities within the research area was examined using linear regression analysis, as presented in Table 4.

# 4.4 The influences of accountability on education performance in public universities

The table above clarifies the impact of educational accountability on teaching and learning processes in public higher education. This means that an increase of one unit of accountability has a 33% effect on the teaching and learning processes, which is highly significant (t-value = 7.57). This finding demonstrated how, when implemented properly, educational accountability has a substantial impact on the teaching and learning process in higher education. In light of this, higher education accountability has expanded quickly over the past 20 years and is now a significant policy tool for managing

higher education in many industrialized and developing nations (Kai, 2009).

# 4.5 The influence of responsibility university governance on teaching and process of public universities

The regression analysis's depiction of responsibility on the teaching and learning process was crucial. According to the analysis, implementing responsibility within higher education institutions has a significant impact on the current teaching and learning process, bringing about desirable change by satisfying all stakeholders. Specifically, increasing responsibility by one unit has a -12.7% influence on the university's teaching and learning process (t-value = 3.84 and (\*\*\*).

In an effort to surpass competitors, higher education institutions assume more responsibility; they are socially conscious and competitively advantageous (Gallardo-Vázquez et al., 2020). However, Santos et al. (2020) argued that universities apply ethical principles and good governance to fulfill their four processes: teaching, research, knowledge transfer, and internal management.

# 4.6 The influence of academic freedom university governance on the teaching and learning process of public universities

The teaching and learning process is influenced by the predictor variable of academic freedom, which is the university governance ideal. The table above depicts how the influence of academic freedom affects the teaching and learning process in public higher education, with (t-value of 3.84, and (\*\*\*) at various points. This result demonstrates the significant impact of academic freedom by unit (12.5%) on the process, thus demonstrating the significant impact of academic freedom implementation on teaching and learning processes.

Regarding academic freedom, the studies by Kori (2016) and Basheka (2009) described decisions made individually and collectively

TABLE 4 The linear regression analysis of teaching and learning of public unit	versities.
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Teaching and Learning	Coef.	St. Err.	t-value	<i>p</i> -value	95% Conf	Interval	Sig
Accountability	-0.33	0.044	7.57	0.000	0.244	0.416	***
Autonomy	0.022	0.033	0.67	0.502	-0.043	0.088	
Responsibility	-0.127	0.04	3.20	0.001	0.049	0.205	***
Academic freedom	0.125	0.033	3.84	0.000	0.061	0.19	***
Transparency	0.006	0.032	0.18	0.855	-0.056	0.068	
Constant	1.072	0.125	8.55	0.000	0.825	1.318	***
Mean dependent var	2.735 SD depe		SD dependent var.	dependent var.		).349	
R-squared	0.345		Number of obs		377		
F-test	39.144		Prob > F		0.000		
Akaike crit. (AIC)	126.573		Bayesian crit. (BIC)		150.167		
***p < 0.01, **p < 0.05, *p < 0.1							

Source: Survey data of 2023.

within the academic community as free to pursue, develop, and transfer knowledge and ideas through research, teaching, and discussion. Similarly, academic freedom allows faculty members to carry out their teaching and learning activities and conduct appropriate and consistent research that is useful for knowledge improvement (Palfreyman, 2007).

The regression analysis of university autonomy fell above the p value (0.502) (t value = 0.67), while the p value was greater than the significance level of (0.05) and the coefficient of 95% was -0.043. This negative result was supported, in certain respects, by the fact that changes to university governance are probably a reflection of broader reform movements within society and the political-administrative system. However, there are also reasons to think that general reforms are incompatible with the highly specific organizational and cultural traditions of the higher education sector, which are shaped by the demands for highly specialized professional knowledge and academic freedom. As a result, it may be challenging to implement general reforms in this sector (Christensen, 2011).

Huong et al. (2023) states that it could not be negative as long as the internal audit of university governance is addressed using the framework of agency theory; in his view, public universities' internal audits help to address agency theory issues and information imbalance, which makes it easier for internal audits to carry out university governance as a result of improved mechanisms.

Another crucial challenge that hindered the implementation of university governance principles in the public universities of Ethiopia is the inconsistencies while practicing university governance principles such as autonomy and transparency, which has directly resulted in a concentration of authority in the hands of central management in the organization, giving faculties and departments minimal operational flexibility and exclusive sources of institutional power (Lera, 2019). Thus, it was this problem that respondents encountered, providing opposite responses regarding the autonomy and responsibility of information in their respective public universities.

The difficulties of governance in public universities are also reflected in a limited ability to comprehend how governance works because the human components of governance, that is, subjective and objective management, are frequently ignored (Kezar, 2004).

# 5 Discussion

This study was conducted to investigate the influence of university governance on education service quality of Ethiopian public universities. Importantly, the implementation of university governance principles and the relationship between university governance and education in Ethiopian public universities has not been fully optimized. It lags behind compared to the expansion of public universities in Ethiopia. Therefore, the focus of this study was how university governance affects educational service quality of public universities in Ethiopia. It demonstrated the current status of teachers' autonomy in decision—making practices in Ethiopian's public higher education institutions, highlighted in the regression result of Table 4, which shows that accountability and responsibility

negatively affected the quality of education services of Ethiopian public universities. However studies conducted by Trakman and South (2008), Altbach (2011a, 2011b), Hazilah Abd Manaf et al. (2013), and Muhsin et al. (2020), show that university governance plays an important role in improving the quality of education in public higher education globally.

The correlation results indicate that accountability and academic freedom have strong positive correlations with education service quality. Studies conducted by Darwish et al. (2022), Jones (2013), Melu (2017), and Shin et al. (2022) support the above finding that strengthening management self-governance, external guidance, and competitiveness also improves the autonomy and accountability of public higher education.

The implementation of accountability with the teaching and learning process yielded a correlation that explains 52.2% of the observed relationship. Furthermore, the regression coefficient at interval 0.416 was r = 0.33 t-value =7.57, and (\*\*\*). This finding demonstrates that the effective implementation of educational accountability has a substantial impact on 33% of the teaching and learning processes in public higher education. According to the study by Rezende (2010), policies aimed at raising the standard of education now frequently incorporate accountability mechanisms. According to Santos et al. (2020), academic institutions ought to attempt to foster university social responsibility by providing diagnostic academic services and encouraging high-quality instruction throughout all domains of education.

According to Keczer (2015), the practice of responsibility within university governance changed employees' aspirations to take responsibility as a fundamental issue of university governance, enabling everyone to shoulder the assigned duties to change the course of their public higher institutions' responses (M = 2.762, SD = 1.135). The overall result of respondents revealed that academic responsibility was not given due attention from public universities in the study area.

Academic freedom at public universities was the fourth most significant independent variable in this study, and its implementation may affect the caliber of education provided by public higher education institutions in the study area. However, the grand mean and standard deviation of 2.697 and 1.087, respectively, show that the implementation of academic freedom was insignificant compared to its importance for education service improvement in higher education.

The results of the regression and correlation analyses were obtained. The correlation results indicate that accountability and academic freedom have strong positive correlations with education service quality. The regression results showed that academic freedom positively affected the education service quality while accountability and responsibility negatively affected the quality of education services of Ethiopian public universities.

# 6 Implication of the study

The study conducted on the influence of university governance on the education service quality in Ethiopian public universities may help educational leaders and academics to understand the concept of

university governance's principles and change the existing education service quality in Ethiopian public universities. The theoretical implication for understanding the governance structure helps scholars to change education services in various areas that include teaching and learning, research, and community engagement. University governance knowledge helps acquire and manage these resources. It helps understand the norms, values, and regulations embedded in the broader institutional environment. Thus, understanding university governance structures shapes decision-making processes and practices within universities.

The practical implications can also ensure transparent, accountable, and participatory decisions related to education service quality by academic leaders at each stage. This helps to improve the decision-making process within the university. The practice of university governance helps academic leaders align the governance structure with the goals and objectives of the university when making decisions that impact education service quality. University academic leaders can be held accountable for educational service quality by implementing a university governance framework that can derive continuous improvements and facilitate meaningful stakeholder engagement. Thus, the specific governance structures, policies, and practices implemented at each public university will influence the outcomes.

# 7 Limitations of the study

Research projects frequently have limitations with regard to methods and results, and there may be significant limitations to the study that was done regarding how university governance affects the quality of education provided by public universities in Ethiopia. Some of the gaps that need to be addressed by other researchers when they begin their investigations in university governance and the quality of education services include the following. Studies with limited sample sizes may have limitations that impact how broadly the results may be applied. For the study to yield trustworthy results it is crucial to make sure that a sufficient number of universities and participants are included. In a similar vein, gathering information on governance and service quality might be difficult. It is possible that researchers will have to rely on self-report measures, which can create biases due to differences in data accuracy and availability. It is essential to guarantee the legitimacy and dependability of the data collection tools.

Proving a cause-and-effect link between university governance and the quality of education services can be challenging. The standard of services may also be influenced by other elements such as finance, infrastructure, or faculty credentials. To ascertain the relationship between governance and service quality, it is crucial to account for these variables and use proper statistical studies.

Contextual elements in the results of the study may be restricted to the unique settings of Ethiopian public universities and may not be readily transferable to other nations or educational systems. Therefore, it is crucial to consider the distinct cultural, social, and political elements that could have an impact on the administration and standard of care in Ethiopian universities.

One of the main issues in undertaking an extensive study on university governance and the quality of education service is time constraints. Time constraints may prevent researchers from fully analyzing or expanding the scope of their work.

# 8 Conclusion and recommendations

This study examined the effects of university governance on the education service quality of Ethiopian public universities. The results of our investigation showed that university governance has attracted attention from scholars worldwide because of its potential to raise the standards for higher education, maximize the use of available resources, and promote the development of human capital. The results demonstrated that it is an essential precondition to involve administrators, employees, and faculty in the organization's decision—making process. Previous studies by Bratianu and Pinzaru (2015) and Mzenzi (2022) served as the foundation for this investigation. This study focused on the influence of university governance principles accountability, autonomy, academic freedom, responsibility, and transparency on education service quality of public universities in Ethiopia.

These were examined based on an analysis of survey data, which showed that autonomy and transparency did not significantly impact the education service quality of public universities in Ethiopia. Moreover, they also showed a negative correlation with the education service quality of public universities in Ethiopia; in contrast, accountability, responsibility of academic staff, department heads, and facility heads in the study area of the university, and academic freedom were found to be positively correlated in the education process of public universities and showed positive correlation with the current status of university governance principles.

The quality of university governance systems has a significant impact on educational service quality. Good university governance practices such as transparency and accountability, openness, and stakeholder involvement enhance the quality of research conducted in academic institutions and promote a supportive learning environment (Huisman and Currie, 2004).

Strong leadership is necessary to improve educational services, which are directly impacted by competent leaders who clearly define and communicate their vision, set high standards, and manage resources effectively to foster an environment of excellence in research and teaching at universities (Birnbaum, 2004).

Provision of proper funding, infrastructure, and research support is necessary to maintain high –quality educational services and advance scientific endeavors. Universities that prioritize high-quality graduates and research infrastructure and resources tend to produce higher-quality graduates and research outputs (Altbach et al., 2019).

University governance enhances collaboration and multidisciplinary research in academic institutions, which fosters opportunities for multidisciplinary research and collaboration and provides an appropriate setting for research, ultimately raising the quality of services related to education. Interdisciplinary cooperation can lead to novel approaches, expanded perspectives, and enhanced research outcomes (Clark and Wallace, 2015).

The quality of education services and quantitative research is typically positively impacted by universities' use of appropriate governance, preservation of academic freedom, and provision of institutional autonomy to teachers and researchers.

# 9 Future studies

The total standard of education that institutions offer is greatly influenced by university governance, which includes all of the procedures, guidelines, and rules that colleges use to function and make choices. The impact of university governance on the advancement and its practical application for the enhancement of university governance provision, in particular public higher education worldwide, continentally, and locally, might be a similar topic conducted by various researchers. We encountered a number of situations and problems with university governance as well as issues with education governance in a variety of educational settings, ranging from primary schools to higher education institutions, which will require further investigation. As a result, to close any gaps that this research might not have addressed further, scholars will likely undertake studies in related fields.

# Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors without reservations.

# **Ethics statement**

The studies involving humans were approved by Hawassa University College of Education. The study was conducted in accordance with the local legislation and institutional reimbursement. The participants provided written consent to participate in this study.

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BA: Conceptualization, Data curation, Formal analysis, Methodology, Writing – original draft. AE: Formal analysis, Investigation, Resources, Supervision, Validation, Visualization, Writing – review & editing. HN: Investigation, Methodology, Supervision, Validation, Writing – review & editing.

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